
TREATING AND BEATING



GEOGRAPHIC TONGUE

AND OTHER TONGUE PROBLEMS

by

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WHAT IS THIS BOOK?

I'd like to start with the standard disclaimers. I am not a doctor and I do not know your personal situation, so I can't give you personal medical advice. What I can do is give you the benefit of my 25+ years of research and my personal experiences. I hope that you will then be armed to find your solution. As always, be sure to check with your personal physician or health practitioner. And remember, you don't have to listen to just one doctor. If they aren't helping you, search for one that will!

Many people with Geographic Tongue just wake up one day, look in the mirror and notice something weird about their tongue. They may have noticed that they burned it recently but once they notice the bald patches they think there must be something seriously wrong. So perhaps they run off to the doctor or do a search on the internet and before long they hear the words "Geographic Tongue" and then some "expert" will say it is benign, meaning it won't kill you.

Then they pronounce that nothing can be done, so don't worry about it. But they aren't the ones who have to live with it! And I say, you don't have to live with it either.

SO WHO AM I TO DISAGREE WITH THE DOCTORS?

Well first of all I am not a doctor or a nutritionist. I didn't study medicine or nutrition in college. Actually, I graduated from a small engineering college in upstate New York and while I was there, I couldn't care less about health or nutrition. I lived on junk food and I was healthy as an ox . . . or at least I thought so, but there were occasional signs of stomach issue. . . .

My doctor said I had irritable bowel syndrome (IBS).

Shortly after graduating, I started getting worse. Before long, I was diagnosed with Crohn's disease. Eventually it got so bad that I couldn't work and I would literally roll around on the floor after eating because the pain was so bad.

Naturally, because it hurt so bad to eat, I pretty much stopped eating. I'd eat a few bites and stop. I tried drinking protein shakes and that helped for a while but before long, I couldn't even get those down. I started losing weight. I went from 130 lbs. in college to 98 lbs. I looked like I had escaped from a concentration camp. At that point my interest in health turned around 180 degrees. I began studying everything I could get my hands on. I learned to speed read and spent hundreds of hours in the library. I knew I had to or I was going to die. When I wasn't in the library, I was in a doctor's office but the doctors were no help.

I went to GPs, MDs, gastroenterologists, chiropractors, osteopaths and finally the head of surgery at a local hospital. They tried everything and finally put me on high doses of steroids. I gained water weight and as the inflammation in my intestines subsided, I was able to eat again. The pain was gone. I was feeling better. In fact, I was feeling so good that I took a trip to St. Vincent, a small island in the Caribbean, where a friend of mine was serving two years in the Peace Corps. Together we hiked several miles up Mt. Soufriere (the local volcano) and ate at Caribbean restaurants. One night, I actually ate two dinners in a row. I literally ordered one dinner and when I was finished, I ordered another. My friends couldn't believe that I could eat that much and still weigh 98 lbs. Little did they know that I was just making up for all the meals I had missed over the previous months. Life was great, the sun, the beautiful white sand beach, snorkeling in the crystal clear Caribbean and best of all, I could eat again.

Hope returned... perhaps I would live after all.

THE RED AND WHITE ARMY

Shortly after returning from the beautiful Caribbean, I started paying more attention to my tongue. I noticed that my tongue had a thick white coating on most of it but part of it had red patches. To me... it looked like the red army against the white army. As the coating moved across my tongue, sometimes the white army was winning and sometimes the red army was winning.

I showed my tongue to the surgeon and he said, "Hmmm. Interesting."

He didn't have a clue—no mention of thrush or Geographic Tongue—and no internet to try to figure it out.

AND THEN IT HAPPENED

Even though I was feeling better, my messed up intestines decided to take matters into their own hands. They decided to bypass the bad section and started developing a fistula.

Basically the fistula was a little worm of an extension that was growing off the side of my intestines, trying to find a shortcut out, and it did. It found my bladder and perforated it.

My surgeon said that was not good since your bladder isn't designed to handle all that bacteria from your intestines. So I was scheduled for surgery.

In the meantime, I was put on antibiotics.

Interestingly, while I was on the antibiotics, the white army lost the battle and my tongue turned a normal red again. Once again, my surgeon said, "Hmmm. Interesting."

BEFORE I WAS TAKEN INTO SURGERY, I MADE MY SURGEON PROMISE ME SOMETHING...

Once he agreed, he wheeled me into surgery where they pumped me full of morphine and anesthesia and my surgeon and my gastroenterologist removed about one third of my intestines. The average small intestines are 20 to 24 feet long and the large intestines are another five or six feet. They removed eight feet of my small intestines and one and a half feet of my large intestines and called in a urologist to sew up my bladder.

I spent the next week in the hospital and my doctor kept his promise. Instead of just clear sugar water in my IV, they added a yellow pouch of vitamins. Surprise, surprise... the doctor said I healed faster than any patient he ever had. I'm convinced that it was having the vitamins in my IV that allowed me to heal faster than if I had been given plain sugar water.



For the next year I was on "Cloud Nine", going to the beach, building muscle, running, exercising, having a great time doing all the things I hadn't been able to do for the last couple of years... it was wonderful!

THE ONLY ISSUE WAS MY TONGUE

Instead of the red and white army, my tongue developed bald patches with white rings around them. A couple of months after my surgery, on one of my follow-up visits I showed my tongue to my

gastroenterologist. He nonchalantly said, “Oh we’ve removed the only part of your intestine that absorbs B-12 so you will need to take injections for the rest of your life.”

Once I got an injection, my tongue was better. The bald patches began to clear up.

Later, I learned how to give the injections to myself so I wouldn’t have to go to the doctor’s office so often. That was my first clue that some vitamins can affect your tongue. I also discovered that I needed weekly injections rather than the monthly ones I was getting from the doctor.



MY TONGUE WITHOUT B-12 INJECTIONS

As a matter of fact, my body was the perfect laboratory to study what happens when you become B-12 deficient, since I couldn’t absorb it at all. Therefore, I know that B-12 deficiency can cause tongue problems. However, that isn’t all.

THE WHITE ARMY RIDES AGAIN

As time went by, the white army returned. I was still reading book after book on health and nutrition. The average doctor only gets an hour or two of nutrition in medical school, but I read every book I could get my hands on (literally hundreds of books on health and nutrition). Before long, I knew more about nutrition than my doctors. During this time, I had moved from New York (where I thought the “best” doctors were) to the back of beyond... where it would probably be impossible to find good health care, or so I thought.

When I first moved to Bedford, a small town in central Virginia between Lynchburg and Roanoke, I was still in the process of recovering from my surgery. The fresh mountain air was wonderful, and life was good, but it wasn’t perfect. Something still wasn’t right. I had a white coating on my tongue.



TONGUE COVERED WITH YEAST

I knew it wasn’t those same old bald patches with the white rings around it... it was something else. Occasionally, whole patches of white coating would peel off.

It turned out that all the antibiotics and steroids I had been taking for years had killed off all the good bacteria in my system and by now the “Yeast” or “Candida” had taken over.

In children, this is often called “Thrush” and is caused by the same yeast as diaper rash and women’s yeast problems.

So even though I was able to treat the Geographic Tongue with vitamin injections...

ALL WAS NOT WELL IN PARADISE

The thrush continued to get worse and eventually the Crohn's disease came back as well. As the thrush got worse, my overall system used all its reserves in fighting the yeast so my body wasn't able to deal with the slightest outside stress, so the littlest thing would "put me over the top"...

I developed food allergies, fatigue, mold allergies, my body just didn't have the reserves to handle anything extra... and I was going downhill fast.

Thrush is just a visible sign that Candida is all over your body. It was taking over my digestive system, poisoning my blood and overall weakening my system.

Provisionally the woman who was our real estate agent said she had just been reading a book on yeast and it sounded like that was what I had. She recommended that I should get a book called "[The Yeast Connection](#)". So once again, I started researching. I'm sure God was watching out for me, because it turned out that one of the doctors mentioned in the book as specializing in Yeast ran "Mount Rogers Clinic," a small doctor's office way out in the boonies of Virginia. Mount Rogers was exactly two hours and forty minutes away from me. No back roads even... it was big highways most of the way, just hop on US-460 to Interstate 81 and I could be there. WOW!

I'm sure I wouldn't have gone all the way to Virginia to this clinic had I still lived in New York, but this was perfect. The doctor believed in looking at things the typical establishment ignored and he specialized in Yeast problems, what more could I ask for? I made an appointment and spent half the day on the road (there and back) and half the day at his clinic.

When I first started the treatment, I felt terrible as the yeast die off poisoned my system (Herxheimer's reaction) but after a week or so of treatment as the yeast population got less control of my system, I started feeling better. Before long, my tongue no longer had the thick white coating and I was doing much better.

TWO STEPS FORWARD ONE STEP BACK

After about a year of freedom and health the old pains started coming back and before long I knew the Crohn's was back again. I was crushed. I was back on the steroids and other drugs to try and keep my intestines from getting inflamed again.

I started seeing a new gastroenterologist and he reminded me that long-term use of steroids is extremely dangerous and I should try something to get off of the steroids. He recommended a ten-day treatment with a drug called Flagyl. He said that in some cases Flagyl has cured Crohn's disease. Flagyl is used around the world to kill germs and parasites in the intestinal system.

I had nothing to lose, so I tried it. In addition to killing off the yeast, and using the Flagyl to kill whatever else was infecting my intestines, I knew from my reading that unless I filled the void and reestablished the good bacteria in my system things would probably return to the old way before long. So even though the gastroenterologist didn't say anything about it, I embarked on a massive program of probiotics immediately after finishing the Flagyl. Once the good bacteria were reestablished, things went well.

Amazingly my Crohn's went away and this time it stayed away. It's been about 25 years since my last attack of Crohn's disease and my most recent colonoscopy showed absolutely no signs of return.

One thing I discovered was that our bodies have the miraculous ability to repair themselves given the right circumstances. This is all doctors can really do. They can create the right circumstances for your body to repair itself but they don't really do the repair. For instance, they might "set" a broken bone so it doesn't grow back together crooked but they can't make it grow. They can kill off bad bacteria or viruses but it is really your body that has to do the repair work.

Because of legacy thinking from the industrial age, most people get this wrong. They think of their body as a machine that starts out perfect when we are born and then slowly falls apart so that it requires a mechanic (Doctor) to put it back together.

However, the doctor plays a fairly small part. Cuts heal themselves and tongues replace their surface every seven to ten days, whether you see a doctor or not. Modern researchers are even finding that parts that they thought didn't regenerate like brain cells and heart cells do regenerate—just like all human tissue. You need to provide it with the right building blocks and those basic building blocks come from the food we eat.

If, however, the food is highly processed, grown on depleted land, genetically engineered, or irradiated, or just old or over-cooked, it might not have all the nutrients (vitamins and / or minerals) that it should have. Therefore, we need to supplement those so our bodies have the building blocks to rebuild themselves.

NO ONE CARES ABOUT YOUR HEALTH LIKE YOU DO!

After spending those thousands of hours researching my health, I wanted to share what I have found with you. I wanted to try to share some of what I have learned by research and by trial and error and simply by experience. I really do want to help eliminate some of the pain you are feeling.

Remember, it is your health, not mine. Although I do care about your health, no one cares more about your health than you do! Not me and not your doctor. No matter how great your doctor may be, he simply doesn't have the time or ability to spend more than a few minutes on your situation.

He has many patients sicker than you are. (At least that is something to be thankful for, I guess.) Unfortunately, that also means your doctor doesn't have the time or inclination to become an expert in your illness. He is too busy helping the "really" sick people.

The big drug companies are in the same situation, they haven't spent time and money researching tongue problems. So even if your doctor wanted to help you, his hands are tied! Without research, doctors simply don't have any magic bullets in their "black bag" to cure tongue problems.

IT IS UP TO YOU

You can and must become an expert in your particular illness. If you don't do something about it now, who will? That is where I come in; this book can help you take control of your life. It provides the information you need to begin to regain your health. By taking some very easy steps, you can actually eliminate many of the issues that are robbing you of health and happiness.

It's your life... you have to take it back! Take control! Get the answers! You can do it and this book will help!

Your tongue is merely an indicator of your overall body health—kind of like a health meter. As you will see in this book, even if doctors did have a magic bullet that would instantly make your tongue **look** healthy, unless they address the overall systemic problems the problem will just return!

Imagine looking at the thermometer, the red line is level with the 20° mark, thinking that is too cold you get some red paint and make the line on the thermometer a little higher. Will that make it nice and warm again? Of course not!

Well, trying to fix the condition of your body's "health meter" (the tongue) is exactly the same thing. Fix the underlying problem in your body and your tongue will take care of itself.

ATTACKING THE SYMPTOM (YOUR TONGUE) WILL NOT SOLVE THE UNDERLYING PROBLEM!

Painting a house might make it look better, but it doesn't do anything to make the foundation stronger!

In this book, we will address the foundational issues! I guarantee you that after reading this book **you will know the secrets of a healthy system and a healthy tongue.**

Of course, I can't guarantee that just by reading this book your tongue will instantly be clean, pink and healthy like the tongue of a healthy newborn baby. We all know that it takes more to create health than just reading a book. **Just knowing what to do is worthless unless you put that knowledge into action!**

I want this book to help you achieve the health you deserve, the health you were meant to have. Therefore, in this book I will also give you specific action steps that you can take to improve your overall health. But you need to make your health a priority in your life.

How would you like to:

- Have more energy?
- Need less sleep?
- Feel more alert?
- Have a feeling of well-being?

LET'S GET STARTED

Is what you are doing now helping? I dare say that if it were you wouldn't be reading this book! Traditional treatments for tongue problems rely on vague ideas and unknown causes.

IS THERE ANOTHER WAY TO LOOK AT THE PROBLEM?

Holistic analysis is where you look at the entire system and realize that tongue problems are really just a symptom of a larger problem. Your tongue is trying to tell you something and most people aren't listening.

If you want your tongue to get better you need to look at the big picture and listen to what your tongue is trying to tell you! Are you ready to listen to your own tongue?

I'M GLAD THAT YOU HAVE DECIDED TO LISTEN.

You have shown promise in that you have picked up this book. It isn't a magic bullet but it does provide valuable information to start you on the road to health and I'm sure it will provide you with the tools you need to begin eliminating tongue problems like these:

- Bald patches
- White coating
- Fissures or cracks
- Tongue or mouth pain
- Black Furry Tongue
- Geographic Tongue
- Pigmented Tongue
- Plus many more!

DON'T GIVE UP

Have you ever been at the end of your rope—ready to give up? Don't do it! There are solutions! You just need to find them. In this book I have compiled solutions from around the world—solutions that would take you years to locate and evaluate.

Are you ready to delve into the world of possibilities and solutions? Good... begin by making a promise to yourself that you will find a solution. Commit to it and don't give up until you have it licked. Keep trying, search and don't give up! Your tongue can become healthy, fresh and pink. Just like a healthy child's tongue! The cells in your tongue are constantly replacing themselves. Next week you will have new cells in your tongue! The only question is will they be healthy cells or diseased ones?

All you need to do is put your body's natural healing action to work replacing your tongue's diseased cells with new healthy ones!

DO YOU REALLY WANT TO GET BETTER?

How badly do you want it? If you truly want it, you can have it!

Decide what you want to be, pay the price, and be what you want to be!"

One of my favorite sayings is, "***Decide what you want to be, pay the price, and be what you want to be!"*** That applies to many areas of life but it applies to tongue health too.

WHAT IS THE PRICE OF HEALTH?

You must be willing to learn, have an open mind to new ideas and be willing to put what you learn into practice.

Do you know the story of Naaman in the Old Testament? Naaman was a proud high-ranking **Syrian** soldier. He worked directly for the King of Syria. Naaman had a problem, he had leprosy. A captured slave-girl worked for Naaman's wife. The slave girl told him that the prophets in her home country could cure Naaman.

Naaman went off to find the prophet. When he got there, the prophet didn't even come out to meet him. He sent word by a servant that Naaman needed to go to the river and dip himself seven times and he would be healed.

Naaman was furious, he thought to himself, "I have come all this way, I brought expensive gifts and the prophet didn't even come out to see me! He made me talk to his servant! Who does he think he is? To make matters worse, he wants me to dip in a filthy old river! There are much cleaner rivers in my

hometown! There is no way he is going to insult me and make a fool of me! I am an important man! I command people for a living! I don't need to put up with this!"

About this time Naaman's servant comes up and says, "If the prophet had commanded you to do some difficult task, would you have done it?"

"Of course," Naaman replied.

His servant then gave him wise advice, "**Well then, why won't you do this simple task?**"

Are you wondering why I told this story? The message is simple!

Just as Naaman had to learn to follow simple directions, we do, too.

Are you willing to do whatever it takes to get well?

JUST DO IT!

People often say one thing and do another! They say they want to be healthy, but then go out and smoke or drink and drive. You have to commit to doing what is necessary in order to accomplish the task of getting better. Simply deciding to do whatever it takes is half the battle! Once you have made the decision to "just do it," the rest is a downhill ride.

THERE IS HOPE!

Knowledge is power! Health is a function of how much you know about your body and what ails it. Never before in history has so much knowledge been so readily available. By reading and studying absolutely everything you can get about your particular problem you can find a cure.

STEP 1: YOU MUST COMMIT TO LEARNING.

Develop a voracious appetite for information about your problem and read absolutely everything you can find about it. In this "age of information," there is so much information available you are certain to find someone with the solution to your particular problem.

Obviously, you are on the right track... you are reading this book, and in it you will find a great deal of information about your problem and many suggestions for finding the secret to a healthy tongue.

STEP 2: EMBARK ON A JOURNEY TO HEALTH.

Begin now and I will show you the results of my thousands of hours of research into health in general and into the secrets of a healthy tongue in particular.

In the following chapters, we will look at the map for your future health and how it pertains to tongue health. Together, we will discover where you are going and how to get there. Before you embark on the fantastic journey to health, we need to look at where you want to go. It has been said that, "***if you don't know where you are going... any road will get you there***"

Well "just any road" won't do! I want to help you, **find the right road for you!**

THE ROAD TO HEALTH AND HAPPINESS... FOR YOU.

Throughout this book, we will examine exactly what it means to have a healthy tongue and what you need to do to start on the right road.

In the next chapter, we will examine some of the psychological problems and solutions related to tongue problems. Millions of people suffer from these without knowing what causes them. Doctors claim the problem is benign. We will start by learning more about how your mind and body are related before we move on to the specific causes of tongue health.

Ready? Let's find out!

CHAPTER 1

WHERE'S YOUR FOCUS?

Focus your mind on something and it expands.

Ever notice how when you get a new car all of a sudden you see them everywhere?

In the same way, as you focus on a specific desire your mind concentrates on the details and begins to develop ways of achieving what you desire. It is truly amazing how the subconscious mind works to accomplish this.

You simply present a goal or an idea from your conscious mind to your unconscious or sub-conscious mind and it begins to tackle the problem. At some point, the answer simply pops up almost like magic. This is often seen as a “flash” of inspiration.

Focus your mind on something and it expands.

Although the focus of this book is not “metaphysical,” I believe it is an important starting point to getting well. In addition to providing that “flash of inspiration,” your unconscious mind also directs your body to heal, grow or repair things that need fixing. Children are excellent at visualizing things because they practice using their imaginations so often. Unfortunately, as we grow older we forget how to use our imaginations.

SICK CHILDREN USE THEIR IMAGINATION TO HEAL

Scientific testing has been done on sick children. They have been given the task of imagining a white knight on a shining horse with a lance in hand attacking “the black glob monsters.” As the white knight rides along, he spears and kills the globs. Interestingly, it has been found that this exercise has actually boosted the children’s white blood cell activity.

So the next time you are fighting a disease, you might want to try visualizing the “white knight” fighting off the nasty diseases. I have tried this myself and have actually felt that it helps, but you need to concentrate and do it regularly not just do it once. In the context of this book, you might want to picture a healthy tongue. I am sure that if you have a severe problem you have studied your unhealthy tongue and memorized every defect. Perhaps you have even been revolted by what you are seeing.

Unfortunately, as you do so, you are focusing your mind on an image of a sick, unhealthy tongue. As you focus on this image, your mind begins to expand it and manifest exactly what you are visualizing. This is not good at all! You want to fill your mind with images of healthy, wonderful-looking tongues. You want to see beautiful tongues with exactly the right shade of red, healthy papillae, and a wonderful sense of taste.

Try it now!

THINK OF STRONG HEALTHY TONGUES

Think of strong healthy tongues. Fill your mind with them. Visualize them. Study them. So much so, that you begin to dream of healthy, lovely, wonderful tongues—not long snake-like tongues, but plump, flat, beautiful tongues. Take a moment, close your eyes and see your tongue as you want it to be.

This simple activity will get your mind focused in the right direction and at the very least, your subconscious will begin searching for possible solutions to your tongue problems. The best-case scenario would be that this mental activity will kick your natural bodily defenses into gear and your body will begin the natural healing process.

WHAT DOES A HEALTHY TONGUE LOOK LIKE?

You may have focused on your unhealthy tongue for so long now that you have forgotten what a healthy tongue actually looks like. How can your subconscious focus on something if you can't even remember what it is? If you look at adults around you, you may have difficulty even finding a healthy tongue!

Children under ten generally have healthy tongues. (Although as you'll see in a later chapter some children do develop geographic tongue.) But generally, they haven't had long enough to develop bad habits and suffer the effects of poor eating habits and most children that I know don't smoke or drink, so their tongues are fresh and new and healthy. Your goal is to have a child's tongue—a clean, new, healthy tongue. Find a child and study his or her tongue! Look at it. Note the color, the evenness and the lack of cracks or bald patches. Note the texture.



Better yet, take a picture and put it on your bathroom mirror. Instead of spending long hours looking at your tongue in the mirror, look at the healthy one and visualize your tongue looking just like it. If you can't find a helpful child willing to stick his tongue out at you, here is a picture of a model's tongue all pink and healthy. Note: I looked at many models' tongues and many had problems. It is more difficult to find a perfect tongue in adults than you might imagine.

It is an important step to fix your goal firmly in mind. **You must know where you are going in order to get there!**

But don't worry, I will get to the physical side of healing in a moment. In the meantime, study this picture for a few minutes and dream of the day that your tongue will be this healthy! Note the healthy pink color, the minimal white coating, the distinct texture, etc.

Throughout this book I include many pictures of unhealthy tongues, black tongues, Geographic Tongues with strange migrating patches, tongues covered with thrush, looking like ugly white moss, and many more as we discuss each of these problems. The problem is by looking at each of these we shift our focus from health to sickness.

So I wanted to remind you to be careful where you put your focus, focus on health no matter how difficult!

In this book, I will show specific actions that can be taken to restore health in each type of tongue problem. First, we need to look at the structure of a tongue. Normally we just take it for granted, but it is an amazing thing, much more complex than you would think. In order to understand what the problem is we need to know what the parts of a healthy tongue are.

WHAT IS YOUR MOTIVATION?

Why do you want a healthy tongue?

Is it merely for looks?

Are you concerned that you will look strange and be embarrassed in public?

Although looks are important, there is much more than that at stake! Of course, there is the health of your tongue itself. If a serious condition affects your tongue, it could damage your digestion or your ability to talk. Both are severe consequences, but even more importantly, there is quite a bit of evidence to show that your tongue is a major indicator of the health of your entire body. In this book, I will address both the issue of getting a healthy tongue and a healthy body!

In the next chapter, we will look at the structure of a healthy tongue.

- What are those bumps on the front of your tongue?
- Are the bumps on the back different?
- What's that thing for under your tongue?
- Where does saliva come from?
- Much more...

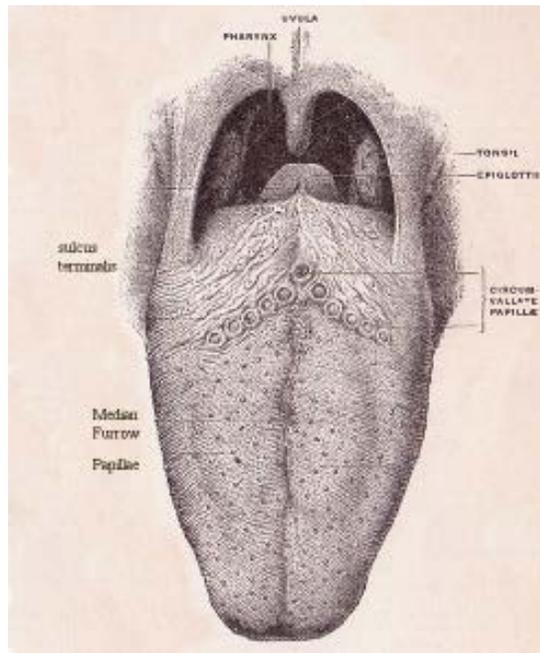
Don't worry; I'll try not to write in "doctorese," but to describe everything in simple, easy layman's terms, which is easy for me because that is exactly what I am!

In the following chapters, we will cover everything from Geographic Tongue to Thrush to Black Tongue. And much more!

Are you ready to get a healthy mind, tongue and body? Let's Go!

CHAPTER 2

BASIC TONGUE STRUCTURE



Take a few minutes and learn some of the marvels of the tongue. In this chapter, we will go over the basics of the tongue and mouth, so we will have a place to start talking about the problems that can occur with your tongue. I will try not to be too boring about it. If you want to, you can skip this chapter and refer back to it if you need to know what a certain part of the tongue does, or you can take a few minutes and learn some of the marvels of the tongue.

The mouth is lined with mucous membranes that protect the inside of your mouth and keep it moist. If the proper moisture level is not maintained, problems can result. These can be dry mouth or an abundance of bacteria because it is not being washed away properly or a number of other problems.

To keep the mouth moist there are three pairs of salivary glands in the walls and floor of the mouth. They secrete saliva, which contains a digestive enzyme called amylase that starts the breakdown of carbohydrates even before food enters the stomach.

The tongue is mostly muscle. It is covered with a mucous membrane.

TOP OF TONGUE

The top side of the tongue can be divided into two parts and is called the “dorsum”.

TOP: dorsum

The two parts are the front that lies mostly in the mouth, and a back part (posterior third of the tongue) which faces backwards.

BACK ONE THIRD: posterior

FRONT TWO THIRDS: anterior

The front and back parts are separated by a V-shaped groove, called the ***sulcus terminalis*** (or terminal sulcus).

V-shaped groove: terminal sulcus

The line down the middle (front to back) is called a median furrow. This is not the same as tongue fissures covered in a later chapter. Some are more prominent than others but this line is normal as long as the edges are curved as opposed to being a sharp crack.

The top surface of the tongue is covered with bumps. These are called papillae and are **not the taste buds**.

BUMPS: papillae

Nestled **between** the papillae are the taste buds, which obviously provide the sense of taste. There are four types of taste buds: *filiform*, *fungiform*, *vallate* and *foliate*. These names come from their shape.

Under a microscope, the fungiform papillae look like little mushrooms. Fungiform means “mushroomlike” in Latin.

Foliate Papillae look like little leaves and foliate means “leaf-like”.

At the back of the front two-thirds of the tongue there are three to fourteen vallate (or circumvallate) papillae arranged in a V-shape just in front of the sulcus terminalis. They are large dome-shaped bumps. Each one is surrounded by a small moat that contains numerous taste buds. Ducts to the lingual salivary glands empty saliva directly into these moats.

Some people have densely packed papillae and others have widely spaced papillae. Some people even have bald patches that are completely smooth. We will cover that later as one of the symptoms of tongue problems.

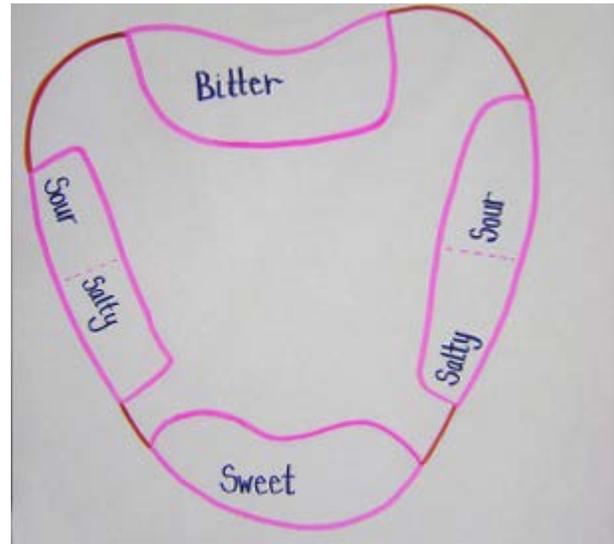
The taste buds react to only four stimuli; sweet, salty, bitter and acid (sour). Everything we taste is a combination of these four.

TASTE

Of course, the most pleasurable part of the tongue is the ability to taste. What good would chocolate be without the ability to taste? Part of our taste sensation is actually related to texture. Liver for instance is often criticized more for its texture than its taste.

Different regions of the tongue tend to be able to taste different tastes. The four major tastes—sweet, sour, bitter and salty—are illustrated in this drawing.

Another important function of taste is to allow us to discern between good food and bad. Nice fresh fruit is sweet. Bad or spoiled food might be bitter, or sour.



Note that in severe cases of Geographic Tongue, if the taste receptors are missing in a specific area, the sense of taste can be severely impaired. Once, when I had bald patches on the sides of my tongue, I drank sour milk without even noticing.

In addition to taste, the tongue moves food around in your mouth to aid chewing and swallowing, and it is important in speech. Changes in the looks of the tongue may indicate a primary tongue problem or may just be a symptom of another problem.

BOTTOM OF TONGUE

There are no papillae on the underside of the tongue. It is covered with a smooth mucous membrane, with a fold (the lingual frenulum) in the center. It also has some blood vessels near the surface and is capable of absorbing some nutrients.

The *frenulum* is the band of tissue that connects the bottom of the tongue to the floor of the mouth. If the frenulum is too short and tight, it will cause the movement of the tongue to be restricted. This is called being tongue-tied and is where we get the term for being afraid to speak in public.

Tongue-tie is congenital (present at birth) and hereditary (often more than one family member has the condition). It occurs in less than two percent of babies. Although tongue-tie is fairly common, it often goes away on its own. Only in rare cases is medical treatment necessary. If it is interfering with a baby's feeding, then the tongue is "loosed" by means of surgery. If a baby is feeding well, however, doctors usually wait at least a year before considering surgery. Treatment is again considered if the tongue-tie is affecting speech.

The back of the tongue is called the posterior and it often has little bumps on it. These are not taste buds, but it is bumpy because of the lymphatic follicles lying underneath. These follicles are known as the *lingual tonsil*.

Things related to the tongue are often called *lingual* which comes from the Latin root word, or *glossal* which comes from the Greek root word for tongue.

MUSCLES OF THE TONGUE

There are four pairs of muscles that act to move the tongue, and they are attached to various bones of the head and neck.

These muscles are called:

- Genioglossus - this muscle comes from the lower jawbone (mandible), and makes up most of the bulk of the tongue.
- Hyoglossus - The root of the tongue is attached to the hyoid bone in the neck, not attached to any other bone; the muscles of the neck support it.}
- Styloglossus - comes from the bones that are located at the sides and base of the skull.
- Palatoglossus – lifts the back of the tongue and helps the beginning of swallowing

NERVES OF THE TONGUE

Nerves from the tip of the tongue connect directly to the brain sending taste sensations of sweet, salty, sour, and bitter directly into your memory. This direct route is why you can remember tastes much better than people's names!

The other thing a tongue can sense is texture; it is extremely sensitive and discerning.

While I was in college, students taking Civil Engineering classes were taught to determine different types of soils. Sand is made up of various sizes and the students were taught that their fingers weren't sensitive enough to determine the difference between the sizes of the grains of sand. The easiest way to decide was to place the grain in their mouth and their tongue could easily tell the difference! They even had a lab course where they put various sizes of sand in their mouth to test sizes!

Tongues are also considered extremely strong for their size. I have even heard that the tongue muscle is the strongest in the body.

In the next chapter, we will cover the things that can go wrong with your tongue and what that means to you.

CHAPTER 3

WHAT CAN GO WRONG WITH A TONGUE?

Imagine a tongue where the upper surface of the tongue turns black or brown in color and in some cases the papillae elongate (get longer). Doctors consider this as an unsightly condition but not harmful and have given it a really creative name BLACK TONGUE. However, it can be extremely distressing and put a severe cramp in your social life. Many people with tongue problems become so self-conscious that they don't want to open their mouths in public and often begin restricting their social activities.

In this chapter, we will briefly mention many potential tongue problems. We will cover these problems in more depth in later chapters.

Another potential tongue problem is HAIRY TONGUE that involves a lengthening of tongue papillae, causing the tongue to appear hairy or furry. Hairy tongue is not considered a harmful disorder, although it can appear worrisome.

Does your tongue look like you have been chewing cotton? If so, you might have CANDIDA or a yeast infection. Many women are making the drug companies rich buying treatments for yeast problems. Often a white, cottony coating on the tongue is one of the first signs that yeast is a problem.

FISSURES, FURROWS or CRACKS are extremely common and if you begin watching for them, you will begin to see them almost everywhere. They are so common that some doctors consider them almost normal. Fortunately, they are not normal and something can be done, although it often takes a bit of effort.

Geographic Tongue is one of the more colorfully named tongue disorders. It instantly calls up images in the mind of a map with various colors and lines. It is often associated with inflammation (*glostitis*) and has been associated with psoriasis in the minds of some doctors.

PIGMENTED TONGUE is the first truly serious tongue condition as it is associated with an extremely rare disease called Addison's disease. Often by the time Addison's is discovered, it is too late. Possibly because it is so rare, most doctors have never seen a case of Addison's before.

CANCER of the tongue is another serious condition and is often associated with tobacco use of some sort.

The next category of tongue problems I am calling VOLUNTARY. It includes piercing and splitting of the tongue. Often these acts end up causing many different types of problems. Involuntary splitting is also a possible problem although fairly rare.

A BURNING, SORE or PAINFUL TONGUE is often associated with other problems covered in this book like Geographic Tongue or Tongue Fissures.

A BEEFY ENLARGED tongue is also fairly common and once again isn't taken very seriously by the medical community, although it can cause speech problems and other discomforts.

This next problem is more of a symptom than a disease but distended purplish veins under the tongue may be a symptom of a Vitamin B₂ deficiency or possibly of poor circulation or of congestion.

TOOTH MARKS or scallops around the edges of the tongue are another symptom often considered a symptom of “edema” or too much water being retained in the body.

A WHITE COATED tongue can be different from Candida and some possible causes of white tongue include local irritation, smoking and alcohol use. In addition to a uniform white coated tongue, the tongue may be covered with white patches.

The final tongue problem we will cover is a YELLOWISH, BROWN-COATED TONGUE.

As you can see, there are quite a few things that can go wrong with your tongue and although many of them are considered “minor” or “benign” they can all be extremely irritating, disturbing and possibly are indicators of other conditions in the body that really should be addressed in order to obtain optimal health.

While traveling the world, I have noticed that there are a great many ways to look at things and even though they are different, they are not always mutually exclusive. I have seen radically different treatments both achieve good results for the same problem.

So in this book we are going to explore many different avenues of possible treatment in order to provide you with the most possibilities for success.

Ever wish you had the test questions before you went to take the test? Well, before visiting your doctor about your tongue, you can be prepared with the questions he might ask. See the list of questions on the next page that you should be able to answer before visiting your doctor.

In the following chapters, we will examine each of the tongue problems step by step and propose several possible solutions for you to look at and possibly explore with your doctor or other health practitioner.

MEDICAL QUESTIONS:

Timing

- When did you first notice it?
- Have you had similar symptoms before?

Quality

- Details of the problem?
- Is it painful? Is it swollen?
- Does it have an open sore?
- Do you have difficulty swallowing?
- Is there a tremor or twitch?
-
- Does it look hairy? Black? White? Red?
- Does it look like a smooth tongue?
- Does it have a fissure or crack?
- Are there grooves in the tongue?

Location

- Where is the problem located on the tongue (all over or just in one location)?
- Aggravating factors
- What makes the problem worse? Eating? Drinking? Swallowing? Talking?
- Do you have dentures?
- Do you have any orthodontic devices?

Relieving factors

- What helps?

Other

- What other symptoms are also present?
- Is the tongue enlarged?
- Are there swollen lymph nodes in neck?
- Are there problems with the teeth, gums, lips, or throat?
- Is the tongue bleeding?
- Do you have a rash?
- Is there a fever?
- Do you have allergies?
- Any problems with breathing?
- Problems with speaking?
- Difficulty moving the tongue?
- Have you noticed changes in taste?
- What medications are you taking?
- Are any medical conditions being treated?
- Has there been a recent injury, such as having the tongue bitten?
- Do you smoke cigarettes, cigars, or a pipe?
- Do you use alcohol excessively?

CHAPTER 4

GEOGRAPHIC TONGUE IS A SYSTEMIC PROBLEM



In her own words:

I have had Geographic Tongue for 11 years. It seems to only be getting worse. I am to the point now that I do not even want to lick my lips in front of anybody because it looks so bad. I am pregnant right now and that seems to be aggravating the situation. My tongue is very sore, my whole tongue above and below is broke out in the white lesions. It is irritating because it may clear up for two days then it is right back. I am tired of having this problem. One time an oral surgeon told me this could be a yeast infection so he gave me Nystatin[®]. Unfortunately, that did not work. My dentist now tells me to hold a tea bag on my tongue. I tried that, it seems to do nothing. Is there anything that can be done for this? If I could just have a few weeks relief from this problem I would be happy. Thank you.

Geographic Tongue is one of the more imaginatively named tongue disorders. Just the name brings to mind a map with various colors and lines. That is exactly what it looks like with its ridges, smooth spots and white circles.

The official “doctor-ese” description goes as follows: “A fairly-common tongue condition of unknown cause manifesting as multiple, flat, irregular, red lesions of the tongue dorsum; after proper diagnosis, no treatment is necessary.” See [USC website](#).

Did you get that? No treatment is necessary! Ignore it and maybe it will go away! Can you imagine telling the woman at the top of this page who wrote in to a help line, “Oh just ignore it and maybe it will go away”? I certainly can’t! The poor woman is hoping for “a few weeks of relief.” How can they say, “No treatment is necessary”?

According to Dr. Greene http://www.drgreene.com/21_784.html “somewhere between 0.1 percent and 14.3 percent of otherwise healthy people has Geographic Tongue” and “We still do not know exactly what causes Geographic Tongue, but we do know that it strongly tends to run in families.”

He also says, "It has been most closely linked to psoriasis. The two conditions have been linked to the same gene and are probably produced in the same manner; nevertheless the great majority of those with Geographic Tongue do not go on to develop psoriasis." Other interesting characteristics he mentions are that people with allergies, eczema and/or asthma are more likely to get it. It is also more common in people with diabetes. Oral contraceptives and hormone levels also tend to play a part and stress may make it worse. Some minor links were found to anemia, seborrhea and spicy foods.

5 POSSIBLE CAUSES OF GEOGRAPHIC TONGUE

All of the possible solutions that I have found for Geographic Tongue seem to fall into just a few basic categories. It is possible that it has several different causes depending on the person's individual situation.

1. A "systemic" problem—perhaps a rampant yeast problem resulting in poor digestion. Things like stress and poor nutrition would worsen this.
2. Food allergies or irritants like acidic foods or acid reflux. These can cause poor digestion, tiredness, adrenal fatigue, etc.
3. Nutritional Deficiencies. Many vitamin or mineral deficiencies look exactly like Geographic Tongue. These deficiencies can be the result of poor eating habits, poor digestion, low stomach acidity or poor absorption due to intestinal problems, or simply a buildup of wastes on the intestinal walls.
4. Mirroring of the condition of the intestines. The Chinese believe that the tongue is a mirror of the body's condition. In other words, if your digestive tract is in bad shape your tongue will be also. As strange as it seems there seems to be some correlation when my intestinal problems are flaring up my tongue is worse.
5. Bacterial or viral infections on the tongue. I always thought Geographic Tongue looks kind of like a battlefield with the red army winning sometimes and then the white army beating them back. The fact that antibacterial drugs seem to work in the short term lends credence to this view.

There are a couple of different ways of looking at this. One possibility is that one of the above reasons is the "right" answer and the others are wrong. Another possibility is that Geographic Tongue is caused by many different factors and so the correct "solution" actually depends on which of the above is causing your problem.

SOLUTION FOUND...

I find the following quote most interesting, "In the years since 1955, when the condition was first described (Journal of the American Dental Association, Sep 1987), several treatments have been tried for Geographic Tongue. **Topical Retin-A was the most successful** (Cutis Aug 1979). No treatment is currently recommended, however, for this benign, self-limited condition." (Emphasis mine)

THEN LOST AGAIN

Notice that although a successful treatment was found, no treatment is currently recommended! Why is that? And what is "Topical Retin-A"? Surprisingly, or not so surprisingly perhaps, "Topical Retin-A" is simply Vitamin A in a salve or ointment form! Let's review the facts.

The medical establishment can't find a bacteria or virus that causes this problem, so they blame it on "a gene" because it tends to "run in families." It tends to be associated with psoriasis, eczema, allergies, seborrhea, anemia, hormones and spicy food. Ok, let's start by eliminating spicy food as a cause because if your tongue is sore of course spicy foods are going to irritate it.

What does that leave us? Four skin ailments, poor blood and hormones. I have found that most skin problems are related to vitamin deficiencies, especially Vitamins A, E and Zinc. So is it possible that Geographic Tongue stems from the same cause: poor vitamin absorption?

...just taking more vitamins won't necessarily solve the problem.

What about it tending to run in families? It has been shown that some families have a genetic tendency to have more difficulty absorbing vitamins than others. And obviously families tend to eat the same things. If they eat the same food, of course they would have the same deficiencies even if their absorption rate was normal. Look, if the entire family is living on potato chips and hot dogs (eating foods lacking in vitamins and fiber and full of preservatives and chemicals) isn't it natural to assume they would be suffering the same problems?

In addition to family eating patterns, I have personally tested the following myself. Many years ago, I had one third of my intestines removed to solve my Crohn's Disease problem. Obviously, because of this my vitamin absorption is lower than a normal person's (since there is less area available to do the absorbing).

METHODS OF ABSORBING VITAMINS

It is a documented fact that Vitamin B₁₂ can only be absorbed in three ways.

1. Small amounts can be absorbed under the tongue.
2. The majority is absorbed in the last foot of the small intestine (just before it joins the large intestine).
3. By injection into a muscle.

It just so happens that the section of my intestine that they removed was the only place in the intestines where Vitamin B₁₂ is absorbed. So in order to get adequate amounts of Vitamin B₁₂, I must take injections regularly. This makes me a perfect candidate for tests on the results of a B₁₂ deficiency.

What I have found is that if I don't take my B₁₂ shots often enough, I get bald patches on my tongue that resemble Geographic Tongue and within one to two weeks of resuming my shots, the patches go away. This is consistently repeatable. What does this tell you? Vitamin deficiencies can cause tongue problems! Unfortunately, most doctors won't recommend vitamins even when the evidence proves they help.

Way back in 1965, nutritionist Adelle Davis, in her classic book [*Let's Get Well*](#), concluded that the following four vitamins can be helpful in the case of Geographic Tongue: **B₂, B₆, B₁₂ and Folic Acid**. Could Geographic Tongue be a symptom of an overall terrain (digestive system) problem? That would explain why doctors have such a difficult time "pinning it down." There is no bacterium that causes it! It is simply a result of a terrain lacking in certain vitamins!

So in addition to Adelle Davis' list of **B₂, B₆, B₁₂ and Folic Acid**, we can add "Topical Retin-A" (or **Vitamin A**), **B₃ (Niacin)** and **Biotin**.

THE PROBLEM WITH VITAMINS

The major problem with a vitamin solution to this problem is that if you are vitamin deficient because of an absorption problem, **just taking more vitamins won't necessarily solve the problem**. They might not be absorbed either! One possible solution is to try using a liquid vitamin and hold it under your tongue so the absorption takes place there rather than in your intestines. Here are a couple of links to liquid or vitamins to be absorbed under the tongue (sublingual). [B-Complex Sublingual Liquid](#), [Ultra-B Liquid 16 oz.](#), [Liquid B-Complex w/ Vit-C](#), [B-12/LIQUID B-COMPLEX](#).

Another solution is to get your doctor to prescribe injections (although it may be difficult to do, it is the only way to be sure you are getting them) and well worth the effort! B-12 injections have the added benefit of boosting your energy levels! If your doctor is reluctant to prescribe B-12 injections, you might want to ask him, "Will they hurt me?" When he says, "No, they won't," you can be more insistent and say "Then I'd like to try them." B-12 is water-soluble and will pass harmlessly out of your body if you don't need it (as long as you drink enough water). That is also why you may not have enough because it isn't being stored.

Medicinal dosages are strange. The bottle volume is listed in milliliters (ml) but the dosage is in cubic centimeters (cc). Fortunately 1cc = 1ml. The normal bottle contains 10ml and 1 ml contains 1000mcg (micrograms) of cyanocobalamin (vitamin B-12). Doctors have found that as we age, we tend to have more difficulty absorbing B-12. Therefore, they are beginning to prescribe B-12 injections for their senior citizen patients. Unfortunately they may still be prescribing too little to help your tongue. Typical prescriptions are a single 1000 mcg (1cc) injection per month.

Since I absorb absolutely zero B-12, I have found that the optimal maintenance dosage for me is 1000 mcg per week or 4 times as much as the typical prescription. In addition, if I am sweating a lot or under a lot of stress, I may need even more. On occasion, I have found that I need 1ml (1000mcg) per day for a whole week to begin seeing a difference in my tongue, but if you are deficient, you will probably feel the difference almost immediately.

Once my tongue starts getting better, I only need one shot per week to maintain a healthy tongue. Since I don't feel like going to the doctor every week, I give myself shots just like a diabetic would. However, these dosages are for injections. You will need more if you take pills or sublingual because it won't all be absorbed. The other way to get more vitamins is to improve your absorption by improving the "terrain." This can be done with "Probiotics."

See the [Chapter on Candida](#) for more information. Often if you can achieve a proper balance between beneficial bacteria like Lactobacillus Acidophilus and harmful intestinal flora, you will see almost miraculous results as absorption improves, leaky gut syndrome abates and overall health returns.

CHAPTER 5

WHERE TO START: THE GEOGRAPHIC TONGUE VITAMIN PROGRAM



Recently, within one week I had two different people call and tell me the success they have had treating their Geographic Tongue with vitamins. The first was a young woman in her mid-thirties who called simply to say that once she started supplementing with vitamins her Geographic Tongue went away.

The other call was from an older man named Tim who lived in New York and had suffered with Geographic Tongue for 25 years. He had seen all kinds of oral surgeons and specialists over the years but not one of them mentioned nutrition. Tim had been taking a multi-vitamin during most of those years, so he thought he had it covered.

Recently he began supplementing that multi-vitamin with additional B-complex vitamins and he said the difference was dramatic. In just a few short days, the fissures he had become used to seeing in the mirror every day for 25 years began to fade and before long, his tongue was better than he could remember ever seeing it.

That corresponds well with what I have seen time and time again. The surface of your tongue is under constant attack from bacteria, scorching liquids, sharp objects like fish bones, etc. Therefore, it needs to be able to regenerate quickly and in a normal healthy body, it does quite well. Once you give your body the building blocks it needs it will rebuild your tongue in as little as seven to ten days.

There are several key building blocks for good tongue health. They are the entire B-complex (which by the way is woefully lacking in most multi-vitamins) and especially B-12 and folic acid. Zinc (although technically a mineral and not a vitamin) is necessary for skin health and some of our most important “skin” is on our tongue and in our intestines. Giving your body enough Zinc is important to maintaining not only skin health but reproductive health as well.

ABSORPTION

Of course taking vitamins will do us no good if we don’t absorb them properly, so maintaining good intestinal health is essential. To do this we need plenty of fiber to scrub the lining clean, while sticky things such as Gluten tends to gum it up. Often before we can tolerate fiber we need to do a “colon cleanse” or two to get rid of the accumulated sludge. Colon cleanses have been known to eliminate up to

20 pounds of accumulated garbage. There are instances of people passing marbles, pennies and even crayons they ate 20 years earlier as kids, after a proper colon cleanse.

Once the colon is clean, it needs a healthy balance of “good” bacteria. These bacteria are often found in yogurt and other “probiotics.” “Probiotics” are of course the opposite of “antibiotics” which kill off not only the bad bacteria but the good bacteria as well. Once the good bacteria are dead and you stop taking the antibiotics, spore-based yeasts can come out of hiding and begin to take over. If you have yeast problems, you need to kill them off and give the good guys a head start before this can happen again. Some of the most common probiotics are in the *Lactobacillus* family like *L. Acidophilus*, *L. Bulgaricus*, *L. Casei* and a variety of others commonly found in yogurt.

The key of course is that they are still alive by the time you eat them. Some yogurts say they are “Live”, some say they are “Active” and some say they are “Live and Active.” The best way to be sure they are live is to get a yogurt maker and make your own.

The basic principle is to heat the milk to 185° F to kill any bacteria that might be in it, and then cool it to 110° F. Next, place a spoon or two of plain yogurt in a glass of the milk and keep it warm (about 110° F) overnight. If you end up with yogurt, you know the original yogurt had active bacteria in it and the new yogurt is full of very active ones. If the yogurt is thin, the bacteria may have been virtually dead (often the case with “premixed” yogurt). The only advantage of the yogurt maker is that it makes it easy to maintain the proper temperature overnight.

Another good source of probiotics is the DanActive probiotics drinks. Remember, a healthy digestive system is necessary to absorb all the vitamins you give it, but...

Modern agricultural methods are providing foods woefully lacking in vitamins compared to only a few years ago. Organically grown produce often contains much higher concentrations of vitamins (and is often tastier). But in order to return a massively deficient system to normal, you will probably need to provide the proper vitamins via supplementation. Of course, you can begin supplementation before the cleansing process, but you may be wasting your time and money and even become discouraged thinking it isn’t working because you aren’t absorbing it properly.

THE DOCTOR’S NUTRITIONAL PROGRAM

Dr. Glen E. Ackerman has 27 years of private practice experience and is board certified in both Family Medicine and Holistic Medicine. He says, a vitamin deficiency and too much gluten in the diet cause Geographic Tongue in many of his patients.

Gluten is found in wheat and many other grains. Gluten is a gray, sticky mixture that makes dough tough and elastic and allows it to hold together while rising. In some people with gluten sensitivity, however, it can create problems.

One of the proteins in gluten is called *gliadins*. Gliadins in the intestinal tract of sensitive individuals can cause diarrhea, gas, weight loss, skin rashes, and recurring abdominal bloating and pain. Experts say gluten sensitivity often goes undiagnosed. The terms celiac disease and gluten sensitivity are basically synonymous, and it is also known as celiac sprue or nontropical sprue. About 1 in 4,700 Americans have

been diagnosed with Celiac disease but some experts say as many as 1 in 133 Americans actually suffer from it.

If someone with Celiac disease eats something with gluten in it, he could actually be damaging his intestines. This could prevent the intestine from absorbing essential nutrients, thus putting the individual at high risk for malnutrition and Geographic Tongue.

Dr. Ackerman has found that the best solution is to eliminate the gluten and begin a supplementation program that many would consider extreme. Compared to the “One a Day” mentality promoted by television, this regimen involves taking “too many pills” but actually Dr. Ackerman’s program is designed to provide the best combination of vitamins in the fewest number of pills (4 whole pills plus 2 halves or 5 a day total). Compared to the cost of most prescriptions it is surprisingly inexpensive. If you don’t like taking pills-- Vitamin C is available in a dissolvable effervescent powder form that I absolutely love from www.nutri.com. [B-Complex is also available in liquid form](#) although it won’t be as concentrated as B-100, it might be more absorbable, and is much easier to take.

One of the keys to his vitamin regimen is the high concentration of B complex vitamins. These are relatively expensive so it is quite common for the cheaper brands of multi-vitamins to skimp on them and include only token amounts in their formula, perhaps only 100 mcg (micrograms) instead of 100 mg (milligrams) which is only 1/1000 as much. This is one case where the old adage “you get what you pay for” is definitely true. Notice that Dr. Ackerman actually prescribes two B-100 tablets a day! I think most people who say “vitamins didn’t work” either weren’t taking enough of the right ones or have absorption issues.

Centrum Silver Ingredients	Amt. Per Serving	Units	%Daily Value
Vitamin A	3500	IU	70
Vitamin C	60	mg	100
Vitamin D	400	IU	100
Vitamin E	45	IU	150
Vitamin K	10	mcg	13
Thiamin	1.5	mg	100
Riboflavin	1.7	mg	100
Niacin	20	mg	100
Vitamin B6	3	mg	150
Folic Acid	400	mcg	100
Vitamin B12	25	mcg	417
Biotin	30 mcg		10
Pantothenic Acid	10	mg	100
Calcium	200	mg	20
Phosphorus	48	mg	5
Iodine	150	mcg	100
Magnesium	100	mg	25
Zinc	15	mg	100
Selenium	20	mcg	29
Copper	2	mg	100
Manganese	2	mg	100
Chromium	150	mcg	125
Molybdenum	5	mcg	100
Chloride	72	mg	2
Potassium	80	mg	2
Boron	150	mcg	*
Nickel	5	mcg	*
Silicon	2	mg	*
Vanadium	10	mcg	*
Lutein	250	mcg	*
Lycopene	300	mcg	*

DR. ACKERMAN'S VITAMIN REGIMEN:

- ½ - Centrum Silver tablet- twice a day (this spreads out the absorption process and gives your body time to use it rather than just pass it through). [Centrum Silver ingredient list](#)
- 1 - B complex tablet like "B-100" twice a day
- 1 - 1000 mg Vitamin C twice a day
- Total 5 Tablets- Spread throughout the day
- Eliminate Gluten from your diet
- Of course, individual needs can vary so you should check with a doctor who is knowledgeable in nutrition or holistic medicine to determine your specific needs.

NOTE:

High quantities of B vitamins can turn your urine bright yellow, but this is nothing to worry about. Some skeptics say this shows you are wasting your vitamin money but tests have shown that your body actually needs vitamins (like C) in your urine to eliminate toxins.

Dr. Ackerman has had good success with this vitamin regimen. Possibly because one of the ingredients in [Centrum Silver](#) is Zinc (15mg) which research has shown to be one of the keys to fighting Geographic Tongue. If your deficiency is one covered by this plan, you should see good results. However, there is one key mineral lacking in this program and that is Iron. Remember, some research points to anemia as a factor in Geographic Tongue. For more information, see the discussion on Feroglobin-B12 in the chapter on [Geographic Tongue in Children](#). A better choice may actually be Centrum Silver Ultra Women's Tablets because of the added Iron, and higher levels of other vitamins. Remember Just because a label says, "Women's" or "Over 50" doesn't mean they will turn you into a woman or make you over 50 if you take them. I often get people asking if it is OK to take them if they aren't over 50. The answer is **YES!** All the name means is that they are formulated with a particular demographic in mind. Since there isn't a "Centrum Silver Geographic Tongue version" the idea is to find the one that most closely matches the needs of the typical Geographic Tongue sufferer. In my opinion that may be [Centrum Ultra Silver. For Women 50+](#) of course your particular deficiency may vary and so it may not be the one for you.

CENTRUM SILVER VS. CENTRUM SILVER ULTRA WOMEN'S

As we can see from the comparison chart, the Centrum Silver Ultra Women's version has more vitamin C, more Vitamin D, more calcium but none of those will probably help much with Geographic Tongue. Unfortunately it also has less of some of the B-complex vitamins which may actually make it less beneficial for Geographic Tongue sufferers. But it does contain more B-12, molybdenum and Iron which may make it better in treating Geographic Tongue. And since Dr. Ackerman's formula includes a separate B-100 the Centrum Silver Ultra Women's might prove a better choice. You may think that because it includes more calcium it may cause problems for some men prone to kidney stones but the RDA for men 19-70 is 600 mg and 800 mg for men over 70. Plus there is some evidence that [Calcium actually helps protect men from kidney stones](#).

ZINC SUPPLEMENTS ARE SHOWN TO HELP A Scottish study on 25 Geographic Tongue patients showed that their serum zinc was subnormal, and supplementation with zinc cured almost all cases. (Gibson J et al. Geographic tongue: The clinical response to zinc supplementation. J Trace Elem Experim Med 1990;3:203-8)

In large doses (more than 50 -75mg/day), Zinc can be mildly toxic so if you think you need more than 25mg check with a doctor to determine your specific needs. Tests on rats showed a taste abnormality appears quickly when there is a Zinc deficiency and even when there is only a slight Zinc deficiency. It also resulted in lingual (tongue) nerve sensitivities.

Elemental zinc supplementation in daily dosages of 25-100 mg appears to be good treatment for taste dysfunction due to Zinc depletion.

ZINC DEFICIENCIES ARE EXTREMELY COMMON IN THE PEOPLE MOST LIKELY TO HAVE GEOGRAPHIC TONGUE.

In a test on pregnant women, serum (blood) levels of zinc declined significantly with advancement of pregnancy. In another test of 118 elderly subjects, 36 had deficient levels of Zinc.

GEOGRAPHIC TONGUE AND PREGNANCY

In another study in Scotland, they found the amount of Zinc in the average diet to be less than the RDA but if whole-meal flour was substituted for white there would be sufficient Zinc. They noted, however, that even this change would not be sufficient for pregnant and nursing women.¹

Pregnancy is a time of high nutritional need,

	Centrum Silver Ingredients	Centrum Silver Ultra-Women's	Units
Vitamin A	3500	3500	IU
Vitamin C	60	100	mg
Vitamin D	400	800	IU
Vitamin E	45	35	IU
Vitamin K	10	50	mcg
Thiamin	1.5	1.1	mg
Riboflavin	1.7	1.1	mg
Niacin	20	14	mg
Vitamin B6	3	5	mg
Folic Acid	400	400	mcg
Vitamin B12	25	50	mcg
Biotin	30	30	mcg
Pantothenic Acid	10	5	mg
Calcium	200	500	mg
Iron	*	8	mg
Phosphorus	48	20	mg
Iodine	150	150	mcg
Magnesium	100	50	mg
Zinc	15	15	mg
Selenium	20	55	mcg
Copper	2	0.5	mg
Manganese	2	2.3	mg
Chromium	150	50	mcg
Molybdenum	5	50	mcg
Chloride	72	72	mg
Potassium	80	80	mg
Boron	150	150	mcg
Nickel	5	5	mcg
Silicon	2	2	mg
Vanadium	10	10	mcg
Lutein	250	300	mcg
Lycopene	300	*	mcg

after all you are “eating for two” now. Not that you need twice the calories but you do need twice the nutrition to build healthy bones and bodies. But in today’s world it is difficult to get the proper nutrition for one let alone enough for two.

I’m convinced that there is a very good reason why so many pregnant women are having tongue problems. You see, research reveals that 80 to 90% of pregnant women are deficient in one or more critical nutrients. As their body’s demand for nutrients increases they just aren’t getting them. Not only can this result in Geographic Tongue but also in an increased risk of things like Spina-Bifida.



I have gotten emails from a lot of pregnant women who have found vitamins to help.

Dear Tim,

I got geographic tongue while pregnant and still have it (I am still nursing). It has gotten worse.

At first I was wondering if your system would work on pregnancy induced geo tongue but I have to tell you this- I started on the treatment you mentioned and my tongue cleared up in two days!

I cannot imagine that it could be a coincidence. I have not had a new lesion begin and it’s now been five or six days.

I don’t think I have gone that long without something flaring up in a long time.

I will be curious to see if I need to continue taking it after I quit breastfeeding.

Anyway, I am so happy and appreciative.

Thanks for your help!

Karen Trevino

Obviously, pregnancy is a strain on your body requiring extra nutrients. But, if you nurse your baby (which you should if at all possible) you have extended the time your body needs that extra nutrition. Plus waking up every couple of hours to care for the baby doesn’t help you recuperate from the stress and strain either and you certainly don’t need the added stress of worrying about Geographic Tongue.

Fortunately, our bodies were designed to know this and have almost super healing powers during this time all they need are the proper building blocks to do it. That is probably why Karen (above) was able to recover in 2 days.

Here is what Diane had to say:

Tim,

Things are much better, I have been taking vitamins just about every day... I have been super cautious about my diet simply because I DO NOT want my tongue to hurt that bad again, but the vitamin therapy seems to help a lot. THANK YOU!

Another good thing is my son does not nurse as often as he used to (every two hours) I think the added vitamins are making my milk quality better, so he is not hungry as often, so I am going to give you the credit for that as well.

Thanks for checking on me, keep in touch!

God Bless,

Diane

ZINC DEFICIENCY HAS BEEN ASSOCIATED WITH ESOPHAGEAL AND TONGUE CANCER

A new finding links Zinc deficiency and esophageal and tongue cancers. Esophageal and tongue cancers have been associated both with a dietary zinc deficiency and increased amounts of the inflammatory enzyme cyclooxygenase 2 (COX-2). This suggests that Zinc treatment could help prevent the conditions in people at high risk.

Dr John Wright, DDS, MS, recommends topical Lidex gel applied about four times daily, just after meals and at bedtime for Geographic Tongue, but it is a steroid and I would stay away from it if at all possible. But one important thing he says is, "Some patients with Geographic Tongue have a Zinc deficiency and your doctor could run zinc blood levels for you. If you are deficient, zinc supplementation really helps."

Here is some recent research that you might find helpful. In Tokyo, 119 patients with "taste receptor disturbance" were tested to see if Zinc would help them. Hmm... "taste receptor disturbance"—could that be doctor speak for Geographic Tongue? Anyway, this "taste receptor disturbance" was the result of a Zinc deficiency in 36 of the 119. It was the result of drug side effects in 38 cases and "idiopathic" or cause unknown in 45 patients.²

Another study in Tokyo, showed that patients with salivary gland dysfunction also had abnormal morphology of the papillae of the tongue (Abnormal papillae? Could this also be Geographic Tongue?) These studies also showed that Zinc was helpful in these cases.³

ENDNOTES:

¹Zinc deficiency in the West of Scotland? A dietary intake study. Lyon TD, Smith H, Smith LB.

The intake of zinc in the West of Scotland was determined by atomic absorption spectrometry, in ninety-six items of food which make up the local standard diet for 1 week. 2. The diet contained less Zn than the recommended daily allowance ((US) National Academy of Sciences, 1974). This finding either indicates the need for a revision of the suggested allowances or suggests that a change of diet is necessary. 3. The change could be made simply by the substitution of wholemeal flour for white flour. Other changes in diet were considered but they were unlikely to be acceptable. Even with changes the requirement of pregnant or lactating women would not be met. If the recommended allowances are valid these women must be deficient in Zn.

²Course of recovery from taste receptor disturbance. Kitagoh H, Tomita H, Ikui A, Ikeda M. Department of Otolaryngology, Nihon University School of Medicine, Tokyo, Japan. [Link to Tokyo Study](#)

The course of recovery from taste receptor disturbance was studied in 119 patients with moderate-to-severe taste receptor disturbance that was cured or improved with zinc therapy. Taste receptor disturbance was idiopathic in 45 patients, drug-induced in 38 and due to zinc deficiency in 36. Recovery of taste, evaluated by filter paper disk testing and electrogustometry, followed 1 of 3 patterns: (i) in 54 (45.4%) of the 119 cases, taste improved simultaneously in the anterior (innervated by the chorda tympani nerve) and posterior (innervated by the glossopharyngeal nerve) portions of the tongue; (ii) in 53 (44.5%) of the cases, taste improved in the posterior portion first; and (iii) in 12 (10.1%) of the cases, taste improved in the anterior portion first. Zinc therapy was more effective in patients with the "posterior" pattern of recovery, and these patients also recovered the ability to sense sweet and bitter tastes earlier than other tastes. These results indicate that recovery of taste begins on the posterior portion of the tongue, which has an abundance of taste buds. The results of electrogustometry were not helpful in assessing recovery from taste disturbance, but testing for taste using the filter paper disk method on the posterior portion of the tongue was useful for identifying the onset of recovery.

³Secretory function of the salivary gland in patients with taste disorders or xerostomia: correlation with zinc deficiency. Tanaka M. Department of Otolaryngology, Nihon University School of Medicine, Tokyo, Japan.

A notable proportion of patients with taste disorders complain of xerostomia and when zinc is prescribed the xerostomia is often improved in conjunction with the taste disorder. To study the relationship between taste disorders, zinc deficiency and xerostomia, we measured salivary gland function and zinc levels in 93 patients with hypogeusia and/or xerostomia and 60 patients with unilateral acute peripheral facial palsy who served as controls. We then prescribed zinc for patients with low serum zinc levels and evaluated xerostomia and taste sensation after 6 months of this treatment. The salivary gland secretory ratio (SGSR), determined by dynamic salivary ^{99m}Tc scintigraphy, was found to be an objective measure of salivary gland function and was reduced in patients with xerostomia. Patients with salivary gland dysfunction also had abnormal morphology of the papillae of the tongue. No significant relation was found between the severity of taste disorders and SGSR values, but low SGSR values were found in patients with zinc deficiency. Patients with taste disorders and/or xerostomia who were treated with zinc had relief of symptoms at 6 months, indicating that both taste disorders and xerostomia are among the symptoms of zinc deficiency.

CHAPTER 6

GEOGRAPHIC TONGUE: DETERMINING DEFICIENCIES



FINGERNAIL RIDGES

Rather than using blood tests to determine deficiencies, you can look for specific symptoms that generally correspond with deficiencies.

THE NATURAL WAY TO DETERMINE DEFICIENCIES

According to DrMyHill.co.uk, **Zinc deficiencies** are often indicated by:

- White spots or ridges on the nails
- Stretch marks on the skin
- Poor vision or night blindness
- Poor healing
- Persistent infections or frequent colds
- Hyperactivity in boys
- Hair loss
-
- PMS
- Infertility, miscarriages and premature labor
- Poor sense of smell and taste



WHITE SPOTS ON THE FINGERNAIL MAY INDICATE A ZINC DEFICIENCY

In addition, taking “the Pill” can result in Zinc deficiency, as can eating a vegan diet.

If some of the above applies to you, there is a good chance that your Geographic Tongue may be related to a Zinc deficiency. The following are other indicators related to tongue and mouth problems:

According to DrMyHill.co.uk, the following tongue and mouth problems are also related to the following deficiencies:

- pale fissured tongue = iron (Fe) deficiency
- sore painful fissured tongue = vitamin B3 deficiency
- sore burning tongue and lips and peeling of lips = vitamin B2 deficiency
- swollen tongue with lateral teeth indentations = food intolerance
- painful sore tongue with a smooth appearance = folic acid deficiency
- cheilosis (A disorder of the lips characterized by fissures, especially in the corners of the mouth) = vitamin B2 deficiency, thrush

For a complete list of Dr. MyHill's natural deficiency indicators see:

<http://www.drmyhill.co.uk/article.cfm?id=327>

MORE TONGUE AND MOUTH DEFICIENCY SYMPTOMS AND THEIR POSSIBLE CAUSES:

In this section, it is easy to locate a problem and then see the possible causes.

BAD BREATH

This can be caused by several deficiencies including Vitamin B₆, zinc, and magnesium. Other possible treatments include bee propolis, chlorophyll (for cleansing, or intestinal sanitation), mouth sanitation (Download the [Bad Breath Bible](#))

BEEFY, ENLARGED TONGUE

pantothenic acid, Iodine.

See Chapter on [Scalloped Tongue](#)

BURNING, SORE TONGUE

Possible deficiencies are Vitamins B₂, B₆, B₁₂, niacin (B3), Vitamin D, Copper.

See Chapter on [Burning Tongue](#)

CRACKED LIPS AND CORNERS OF THE MOUTH

Vitamins B₂, B₆ and folic acid deficiencies

DISTENDED, PURPLISH-BLUE VEINS UNDER THE TONGUE

vitamin B₂ (circulation poor, congested)

EDEMA OR TOOTH-MARKS ON TONGUE

This can be a Niacin (B₃)/nicotinamide or Iodine deficiency.

See Chapter on [Scalloped Tongue](#)

ENLARGED (BEEFY) TONGUE OR TONGUE TOO SMALL

Pantothenic acid, Niacin or Iodine deficiency.

See Chapter on [Scalloped Tongue](#)

FURROWED (CRACKED) TONGUE

Vitamin B₁, Pantothenic acid deficiency.

See Chapter on [Tongue Fissures](#)

RECEDING OR BLEEDING GUMS (GINGIVITIS)

Vitamin C, bioflavonoids, calcium and alkalizers

MOUTH ULCERS, CANKER SORES

Folic acid (B₉), vitamin B₆, zinc (alkalizers, test for allergies)

PAPILLAE PROMINENT OR ERASED

Can be a niacin (B₃) deficiency

PURPLISH OR MAGENTA TONGUE OR LIPS, OR PURPLISH-BLUE VEINS UNDER THE TONGUE

Vitamin B₂ deficiency

SCALLOPS AROUND EDGES OF TONGUE

Malabsorption; this can be a Niacin (B₃) or Iodine deficiency
See Chapter on [Scalloped Tongue](#)

TONGUE RED AT TIP OR EDGES; WHOLE TONGUE SCARLET RED, SORE

Severe Vitamin B₃ or B₆ deficiency

TONGUE SHINY, SMOOTH

Vitamin B₁₂, folic acid deficiency

TONGUE STRAWBERRY-RED TIP/SIDES, BEEFY

Vitamin B₁₂, folic acid deficiency

WHITE-COATED TONGUE

Intestinal putrefaction, colonic, Probiotics

WHITE PATCHES ON TONGUE

Vitamin B₂ and other B vitamins possible food allergy, or Yeast

YELLOWISH-BROWN-COATED TONGUE

Liver or gall bladder problems

The above table was found at http://www.testsymptomsathome.com/SYM_antioxidant.asp
They offer mineral tests from a hair sample that will test your Zinc levels along with ten other minerals.

There are more tables of vitamins and deficiency symptoms at the [end of this book](#).

CHAPTER 7

GEOGRAPHIC TONGUE: THE BIGGER PICTURE



I believe Geographic Tongue is a major indicator of a much bigger picture—and it isn't a pretty picture. It is a picture of a body barely getting by and a tongue screaming out for help. It is saying this body isn't healthy! I need something done! Perhaps it is having difficulty coping with all the additives, preservatives, a diet lacking in healthy fiber, or a lack of beneficial bacteria and/or vitamin deficiencies. Alternatively, other diseases or allergies could weaken it.

Think of it like this, if you are driving along in your car, you look down at your gas gauge, and it reads empty. Will you blame the gauge or will you fix the real problem, which is the level of gas in the tank?

THE TONGUE IS THE "GAS GAUGE" OF THE BODY

Your tongue is actually kind of like a health meter for the body. It seems obvious that a healthy body has a healthy tongue but a weakened body would have a sick tongue. For thousands of years, doctors have been asking patients to stick out their tongue and using the signs and conditions they observe to help determine the overall state of the body but...

One thing you may not have thought about is that the tongue is actually the first organ of the digestive system. The tongue moves the food around so the teeth can chop it up into more easily digested chunks and mixes it with saliva. The tongue also is the strongest muscle in the body. If that was all there was to it, it would be functional enough but there is much more to the tongue.

The tongue is also covered with bumps that many people mistakenly believe are "taste buds." They aren't actually the "taste buds" but are called "papillae." There are three types of "papillae" and they get their names from their shape. The first is called *Fungiform papillae* because they are shaped like mushrooms. There are also *Foliate papillae* which are shaped like leaves and the *Fungiform papillae* which are like little troughs. Each papilla has from one to 18 taste buds hidden inside it. A healthy tongue has approximately 1120 *fungiform* taste buds, 1280 *foliate* taste buds, and 2200 *circumvallate* taste buds.

Of course, as a Geographic Tongue loses its papillae and becomes smooth, the sense of taste in that area is also lessened.

The unhealthy tongue is indicating that there is a much more severe problem lurking in the body. Something must be causing it... it doesn't just happen! As I said, the tongue is sort of like the health meter of the body. When the body needs something, it starts a chain reaction that results in the tongue showing the symptoms. The symptoms could be a white coating, or cracks, or even bald patches with white rings (as in Geographic Tongue). Think of your tongue like a "Gas Gauge" indicating when your body is low on something.

When your car's gas gauge reads empty you don't get upset and say, why does this always happen to me—that gauge is always empty! Or, I must need a new gas gauge. No, you go to the station and get more gas. The same is true for your tongue. Once you can read it, you can know what you need to do to return your whole body to health and consequently your tongue will also return to normal. This is why treating the tongue as the disease rather than as the symptom will never work!

Unfortunately, the body is a bit more complex; imagine a car that runs on gasoline, propane, diesel and hydrogen. Next, imagine that there is only one gauge for all of them. So if one is empty, the gauge will read empty, but you will still have to determine which one is needed. That is why finding the right solution to your tongue problem is so difficult.

The key is realizing that it is a symptom and then working to track down what is missing or causing your tongue problem. Start by remembering that Geographic Tongue is a symptom not a disease. It is a symptom of a system that needs natural foods, healthy balance and perhaps less stress.

STRESS

According to the World English Dictionary

1. special emphasis or significance attached to something
2. mental, emotional, or physical strain or tension
3. emphasis placed upon a syllable by pronouncing it more loudly than those that surround it
4. such emphasis as part of a regular rhythmic beat in music or poetry
5. a syllable so emphasized

In physics:

1. force or a system of forces producing deformation or strain
2. the force acting per unit area

For our purposes here, the second definition would be the most appropriate, but if you think about the other definitions a bit, perhaps they will help you get a handle on what causes stress in your life: perhaps putting too much emphasis on the wrong things, or external forces pushing in on you.

STRESS INCREASES YOUR NEED FOR NUTRIENTS

Most doctors agree that stress is a factor in many diseases but they just don't know how. Stress causes whatever problems you have to be worse. Stress increases your body's need for nutrients. Think about it. If you are already deficient in certain nutrients and you increase the quantity of those nutrients needed, of course the existing problems are going to get worse!

Many doctors will give you advice like “try to avoid stress,” but that isn’t much help. That is like saying don’t think about a pink elephant. What happens? Your mind races to pink elephants! Therefore, you must know what stress is and find new ways to cope with it or eliminate it.

TRYING TO ELIMINATE STRESS CAN BE STRESSFUL

It seems somewhat silly and counter intuitive but...

- Change itself can be stressful
- Trying to eliminate stress is a change
- So trying to eliminate stress can be stressful

Trying to eliminate stress
can be stressful

Stress weakens an already weak system. It is the final straw on that already over-loaded camel. There are many forms of stress. When we first hear the word, we may think of an angry argument or of a feud with a neighbor that leaves a knot in the pit of our stomach. There are many other types of stress, both emotional and physical.

TYPES OF STRESS

There is job-related stress like deadlines. What about the stress of driving in traffic or worrying about a friend or family member?

Have you ever thought of happy stress? The words sound mutually exclusive. How could they be used in the same sentence? Researchers have found that things like an upcoming marriage are just as stressful as a death in the family. Almost any form of change causes stress. Job changing is stressful (even to a “better” job), marriage, going to college, changing schools; any type of change is stressful emotionally.

Physical stress can be caused by pollution, overwork, too little sleep, physical pain, injury, food additives and preservatives, etc. There is also mental stress, things like worry about finances, studying for a big test, preparing your taxes. Finally, there is spiritual stress. I’m sure you haven’t heard this one before, but I honestly think there is spiritual stress.

Most experts will agree that the four major sectors of our being are Physical, Mental, Emotional and Spiritual. Some will add three more Financial, Social and Family Life. A healthy individual will have all of these parts of their “self” in balance. Kind of like a wheel with each of these as spokes. What happens if you have one short or weak spoke? The wheel gets wobbly! The same is true of our lives.

Spiritual Stress

So what could cause spiritual stress? The death of a loved one or a realization of one’s own mortality often causes people to begin examining the spiritual side of their lives. I believe that there is a God-shaped hole inside every individual and until it is filled, you will not find peace. Without peace, there is stress.

People go to great lengths to fill this God-shaped hole trying “Sex, Drugs and Rock ‘n’ Roll” or alcohol, or a wide variety of other things. Before long, however, they find that although these things may bring temporary “gratification,” there is still something missing. Next, they may try money by becoming a workaholic but that like all other “-holics,” just adds more stress.

True peace can only be found when the piece that fits that “God shaped hole” is found. True peace goes a very long way toward eliminating stress (or at least the effects of stress) and not just spiritual stress. Imagine a peaceful person, someone like Mother Theresa who is truly at peace with the world; that person is calm, cool and at peace. Now imagine this person confronted by a potentially stressful situation. See how stress has no effect; it almost bounces off?

If you would like to find out more about how to have this type of peace, go to www.HealthyTongueSecrets.com/hts/supernatural_peace.htm

The best antidote to stress is spiritual peace but...

11 WAYS TO REDUCE STRESS:

1. To add variety to your daily routine, don't get stuck in a rut
2. Don't focus on the same issue (problem) for too long
3. Get some exercise
4. Try to help someone less fortunate than yourself (you will be amazed at how therapeutic helping others really is)
5. Get more sleep
6. Eat healthier, more natural whole foods with no preservatives and chemicals
7. Try homemade bread! Making and eating it are both therapeutic. (Fiber is healthy and there are no preservatives, etc. The one caveat is if you have yeast problems it might make them worse.)
8. Try a repetitive hobby like knitting, carving, playing solitaire, etc.
9. If your job requires a lot of thinking, find a hobby that is mindless.
10. If your job is physical, find a hobby that requires you to think (like crossword puzzles).
11. Gardening is relaxing, strenuous and rewarding.

OTHER STRESS RELIEVERS

Some minerals are good at relieving stress as we will see in the next chapter and “coincidentally” they are good at relieving some cases of Geographic Tongue. Good examples are calcium, magnesium, zinc, lithium and many others.

Herbs have been used for thousands of years for the treatment of various conditions. Some herbs are also great stress relievers. A nice hot cup of chamomile tea often does wonders for frazzled nerves.

Rhodiola has been tested against many types of physical stress and has been found to lower cortisol levels. Other stress relievers are ginseng which seems to be great for just about everything (an adaptogen), and has been found to be useful in relieving long-term stress.

For short-term stress like anxiety, Gingko Biloba has been found helpful. Another helpful herb is Astragalus, which is also an adaptogen that helps boost immunity.

Read more: <http://www.livestrong.com/article/295087-herbal-stress-relievers/#ixzz1dLhkRZv>

CHAPTER 8

MINERALS AND GEOGRAPHIC TONGUE



We have already covered vitamins, and mentioned one of the most important minerals in dealing with Geographic Tongue, i.e., Zinc, but let's look at minerals a little closer.

MINERALS:

ZINC

One mineral commonly associated with skin issues is zinc. It is essential to much of the body's functions. It works closely with calcium. A common indicator of extreme zinc deficiency is white spots in the fingernails and eczema. Where have we heard that before? Oh, yeah, anyone who has done any research on Geographic Tongue has heard doctors say something about several skin problems (including eczema) being somehow related to Geographic Tongue! Isn't that amazing! Zinc deficiencies cause skin problems and eczema and they are all found in people with Geographic Tongue! Zinc deficiency is also known to cause decreased salivation and bad breath. Decreased salivation can also increase the tendency toward Candida.

If you have Geographic Tongue, you want to look for signs of a Zinc deficiency. An excellent book that talks about the relationship between Eczema and Zinc deficiency is [Dr. Wright's Book of Nutritional Therapy: Real-Life Lessons in Medicine Without Drugs](#) it is currently out of print but Dr. Wright has several other books that are in print. Dr. Wright is a medical columnist for Prevention® magazine. He has a very natural approach to health. Another of his books along the same line is [The Patient's Book of Natural Healing : Includes Information on: Arthritis, Asthma, Heart Disease, Memory Loss, Migraines, PMS, Prostate Health, Ulcers](#) by Jonathan Wright, M.D., and Alan Gaby.

There is a great deal of evidence that if you have a Zinc deficiency correcting it will help your Geographic Tongue. Obviously, if Zinc isn't your problem then taking it won't help. But many, many people are deficient in Zinc (perhaps as many as 90% of the population) so there is a good chance taking it will help. In addition, Zinc deficiency is related to prostate problems and many conditions classified as "old age" are really just the result of long-term deficiencies.

MAGNESIUM

Magnesium is essential for more than 300 different functions in your body, and it is absolutely critical for heart health. Adequate magnesium levels lower blood pressure, prevent hardening and clotting of the arteries, regulate heart rhythm, improve exercise duration and **actually calm your nerves. Magnesium is a great way to reduce stress.** Since about 70% of the U.S. population is deficient in magnesium there is a

good chance that it will help calm you and improve your overall health. As a bonus, according to the Centers for Disease Control, the higher your magnesium levels the less likely you are to suffer death from all causes. Wow! Higher magnesium levels improve your life expectancy.

Studies also show that the lower your level of magnesium the higher your risk of heart attacks. A University of Virginia School of Medicine study, for example, showed that those with the lowest levels of magnesium have twice the risk.

In *The Miracle of Magnesium*, Carolyn Dean, MD, ND, states that most people require about 900 mg per day - three times what the government says you need. The best food sources of magnesium are dark green leafy vegetables (Iceberg lettuce doesn't count as a dark green leafy vegetable), pumpkin seeds, Brazil nuts, almonds and avocados. Unfortunately, most people in the US don't eat much of these. If you don't eat many of these foods, you could benefit by supplementing with magnesium.

LITHIUM

The next mineral I am going to mention is going to surprise you and may cause you to think I have gone a little crazy. Dr. Wright strongly recommends it and actually uses it himself! I have tried it and recommend it.

I'll bet you thought lithium was a drug, right? Well it isn't! It is a mineral closely related to sodium and potassium. It occurs naturally in certain plants and is present in many water supplies naturally. Interestingly, it has a calming effect and reduces stress.

In the 1930s and 40s, lithium chloride was sold in stores as a salt substitute, unfortunately that type of usage resulted in overdoses. In the 70's it began to be used heavily in mega-doses to treat mental health problems. Because of the super high levels of the doses, it gained a bad reputation and became associated with mental illness. The doses used were 150-2100 mg per day.

According to NAMI "The Nation's Voice on Mental Illness," lithium is helpful in 70 to 80 percent of people with bipolar disorder, making it one of the most effective psychiatric medications available. It takes about two to three weeks for it to reach its maximum effectiveness. Common side effects of large doses of lithium are nausea, loss of appetite, and mild diarrhea. Those are considered mild compared to the side effects of many medications. Even aspirin is known to cause bleeding in the stomach and other serious side effects.

Dr. Wright recommends dosages for healthy people of 5 - 10 mg per day. (Miniscule compared to 150-2100mg!) At those levels rarely (read never) causes side effects. He also has evidence that even at those small levels it will actually promote healing of brain cells!

According to Dr. Wright, "protecting against glutamate-induced nerve cell damage is also one of the well-known actions of lithium." This means that it is helpful in cases of Alzheimer's disease! Interestingly, zinc deficiency has also been associated with Alzheimer's disease. Some also link mercury poisoning to Alzheimer's disease and Chronic Fatigue Syndrome.

A list of some articles can be found at: <http://www.cfspages.com/hglinks.html>

Dr. Wright also says Lithium is helpful in treating addictions like alcoholism, and other mysterious diseases like fibromyalgia, gout, cluster headaches, herpes simplex viruses, Epstein-Barr virus, measles, and Graves' disease (Hyperthyroidism). For more information, you can read his articles on Lithium at:

[The Misunderstood Mineral Part 1](#)

[The Misunderstood Mineral Part 2](#)

The reason I mention it here is because stress is closely related to Geographic Tongue and if lithium reduces stress, perhaps it will help with Geographic Tongue.

Since many people with Geographic Tongue also suffer from fibromyalgia, I am including a couple of resources here: [What Your Doctor May Not Tell You About Fibromyalgia : The Revolutionary Treatment That Can Reverse The Disease](#) by R. Paul St. Amand and Claudia Craig Marek and [Treating and Beating Fibromyalgia and Chronic Fatigue Syndrome: A Patient's Self-Help Manual](#) by Dr. Rodger Murphree.

MOLYBDENUM

Another essential mineral is molybdenum. Many people believe it can help break down yeast by-products into forms that the body can handle. They say, *"Molybdenum is chemically responsible for breaking down acetaldehyde into acetic acid. Acetaldehyde cannot be excreted from the body; it accumulates. Acetic acid can be excreted, though, and the body naturally removes it or changes it into acetyl coenzyme A, a major player in the body's energy system."* The recommended dosage is 100 mcg of molybdenum three times a day (total 300mcg).

One user claimed, *"Within the first 24 hours of taking the Molybdenum, the geographic sites were at least 75% better (definitely in remission) and the furry coating on my tongue entirely disappeared, along with most of the tenderness and pain. The bad taste in my mouth also cleared within a couple of hours of the first dose."*

CALCIUM

Calcium also has nerve-calming effects. One symptom of calcium deficiency is "restless legs." If you suffer from this in addition to Geographic Tongue, you definitely want to look into calcium supplementation. Supplementing several of the other Minerals mentioned in this chapter will also help with this condition.

IODINE

Iodine has been found to help in cases of hypothyroidism. (See chapter on [scalloped tongue](#)).

IRON

Iron is a key factor in anemia that has been correlated to Geographic Tongue. For more on Iron see [Ferroglobin-B12](#) in the next chapter.

AMINO ACIDS

One final supplement that is neither a Vitamin nor a Mineral but an Amino Acid is L-Lysine. Vitamin stores sell it as a dietary supplement. Some Geographic Tongue sufferers have said that "taken regularly, Geographic Tongue outbreaks occur less often." I take L-Lysine regularly, as it also seems to calm my nerves.

CHAPTER 9

GEOGRAPHIC TONGUE IN BABIES, TODDLERS AND CHILDREN



One of the most common questions I get is from worried mothers about their son or daughter's tongues. Here are a few of the letters:

"My 2 year old son has a geo tongue the Dr. says not to worry....He does not complain of any pains with his tongue but...it looks awful. I have never seen anything like it...It also seems worse when he gets sick....Please help...."

"I have an 8 year old daughter who has had this condition from a very early age. It doesn't seem to affect her except she won't eat food that is even mildly spicy as she says that it burns. I'm interested if you know of any people who have other conditions e.g. eczema, psoriasis etc. that they may think have been linked to their tongue condition?"

"I have a two year old son whom started with this white patch on his tongue last October that looked like a burn had scalded his tongue. I was told by a pediatrician that it was Geographic Tongue. Don't worry about it.

"Well it's now April and it appears to be getting worse He's running high fevers every so often and sticks his tongue out stating that it hurts and points at it. He is also not eating and when he drinks he states it burns."

"I am left not knowing what to do because the Doctor tells me it's nothing."

"My three year old, has Geographic Tongue, I have only realized what it is by searching on the internet. I took him to the doctor, he said it would go away, and it very common in children and I mustn't worry. What can I do to cure it?"

"My 3 year old daughter has Geographic tongue. She has had it for about a year now. I was wondering what you thought about giving her the vitamins you suggested. What milligrams should I give her?"

IT'S HARD TO HEAR OF ONE SO YOUNG HAVING IT

Dealing with this as a parent is difficult because we don't want to see our children suffering and yet the doctors are telling us that it is nothing and don't worry about it.

I usually tell these parents that I have good news and bad news for you. The good news is that often Geographic Tongue goes away as children get older. Unfortunately, the bad news is that sometimes it doesn't. Because I believe that Geographic Tongue is often related to a vitamin deficiency and there are several possible vitamins that could be the cause (this is one reason that it is tricky to track down).

THEY MIGHT OUTGROW IT

One reason that it seems to occur at around two years old so often is because that is when the children are at their pickiest. They are starting to say "no" and throw food that they don't like. This makes giving them a balanced diet especially difficult. They are also growing so their needs for vitamins are higher.

This is the same reason that they often "outgrow" it but not always. If they get over their pickiness and start eating a balanced diet, they might get over it. If not, well...

Most doctors tell you there is nothing you can do. Some doctors say it is genetic... Some doctors will tell you that there is a chance that your son or daughter will "outgrow it." And, that is true. But, that doesn't make sense.

If they can outgrow it... then obviously it isn't a genetic disease with no cure.

Something must be causing it and when those conditions change, it goes away. Right?

When I was a kid, there was a family down the street that had three children: two girls and a boy. Even though they all lived under the same conditions in the same house and ate the same food and had the same genetic makeup... the girls were fine and the boy who was the youngest had Geographic Tongue.

At the time, I didn't know (or care) since I was just a kid myself and was happy to play with my friends. Many years later, after I had written my first book on Geographic Tongue, I was talking with their mom and she told me about it. She said her son had gotten Geographic Tongue at around the age of two and then it had mysteriously gone away a few years later.

That is typical. It seems that when children start eating on their own they occasionally develop Geographic Tongue.

THERE'S ONE IN EVERY CLASS

Typically, about 3% of the worldwide population has Geographic Tongue. You can expect about one in 33 kids to have it. That is quite surprising when you think about it. Since many school classes have 20 to 30 kids in them. That means that in almost every class there will be one kid with Geographic Tongue. Of course, since there is only one if he or she is discovered... he might be singled out for ridicule or harassment and made to feel alienated, weird, or deformed or inferior because it is just rare enough.

In reality, it isn't very rare. On the playground with a couple of other classes, there might be a couple of other kids with the same problem. Of course, once they realize that the other kid is being teased for their

nasty tongue, they certainly aren't going to jump up and say, "I've got one too" and open themselves up to the same childhood torture.

They will probably keep their mouth shut... literally... or maybe even participate in the torture.

1246 CASES OF CHILDHOOD GEOGRAPHIC TONGUE

Interestingly, there was a study done in Jaffa, Israel from June 1949 – June 1954 by doctor Rahaminoff, M.D. and doctor Muhsam. During this five-year study, they examined the tongues of 8305 children. Five thousand, four hundred twenty-five of them were infants below the age of two and 775 of those had Geographic Tongue. That is an astounding 14.29% compared to the typical 2 or 3%. Of the remaining 2880 children over the age of two, another 471 cases of Geographic Tongue were observed, which was over 16%! So what made these particular children more susceptible to Geographic Tongue?

Well, the vast majority of these children were refugees from Central and Eastern Europe. They were malnourished, had suffered extreme stress and had been relocated to the newly formed Israel.

There is another clue to the cause of Geographic Tongue.

GEOGRAPHIC TONGUE IN COAL COUNTRY



On my [website](#), I have mentioned the story of Ethan and his mother Christi. Ethan, his mother and sister live in a small rural town of just over 11,000 people, deep in the poverty-stricken Appalachian coal mining country at the intersection of the Coal and Kanawha Rivers.

As a single mom, living in the mountains of West Virginia, life was rough for Christie and her two children. It's hard enough to get by on two incomes these days, but as a single mom in a state with one of the highest unemployment rates and one of the lowest standards of living it was especially tough. So let's just say that Christie was barely scraping by when she contacted me.

In her letter, she said she was really worried about her son Ethan. It turns out that Ethan had a really bad case of Geographic Tongue. Here's how Christie put it, ***"His tongue was getting so bad he wouldn't eat for days and would hardly drink... He's 3 years old and eats less than an 80 year old with cancer!! It bothers him so bad!!"*** In Ethan's case, it was a simple matter of nutrition. There are a few key vitamins that when provided cleared his tongue right up. Ethan's case was very similar to that of the children in Israel: Nutrition!

In fact, I would say nutrition is a major factor in almost every case of Geographic Tongue. However, it may not be the only factor.

Often children are "picky eaters" and so they aren't getting all the nutrition they need. Conventional wisdom has it that if children are given a wide variety of foods to choose from they will eventually balance their own diets.

Perhaps at one time this was true when all the foods were healthy and full of vitamins, but somehow I don't think it works that way anymore. Given the choice these days, most kids will live on candy and ice cream, the more sugar the better, the emptier the calories the more they like them. Therefore, the first problem is getting the nutrition into their little bodies in the first place.

In fact, a recent study on rats showed that rats actually preferred the empty calories of sugar to cocaine. Sugar showed the same addictive characteristics as cocaine. Once your kids get started on sugar they are headed down an addictive path.

According to David Ludwig, a Harvard researcher and director of the New Balance Foundation Obesity Prevention Center at Children's Hospital Boston, "Addiction is a loaded term, but there are aspects of the modern diet that can elicit behavior that resembles addiction." See [Is Junk Food as Addictive as Cocaine?](#) for the full story.

PROPER NUTRITION

The key, of course, is proper nutrition. Just as in adults, the key vitamins are B-12, Folic Acid and other B-vitamins; another key factor would be Iron and Zinc. I usually recommend a good start would be to give them a multivitamin and see if it helps (maybe a liquid one for better taste and absorption).

If the problem isn't picky eating, sometimes it is an absorption issue. If that is the case, the key would be to work on digestive health like proper intestinal bacteria. Antibiotics kill off the good bacteria and let the yeast proliferate which causes all kinds of problems. See if you can get them to eat yogurt and give them some probiotics. I started my kids on plain yogurt (not the kind mixed with sugar and fruit) at about six months and they have been healthy ever since. You should have seen the face my son made the first time he had some! Neither one has ever needed any antibiotics and they are teenagers now. My son especially has only been "sick" about three or four times and each one was extremely mild usually lasting about 24 hours.

Some say Geographic Tongue is hereditary; I think it might appear to run in families because:

- 1) The family eats the same poor diet.
- 2) They have a hereditary absorption issue.

Stress (or being sick) makes it worse probably because nutritional needs are higher at that point.

SYLVIA AND LITTLE CHRISTINE

Hi Tim,

My daughter is 98 % back to normal... It took 3 weeks for her tongue to improve. At first, it kept getting worse and I felt like giving up. Thank you very much. Your book and advice was the answer to my prayers. Thank you! Her geographic tongue is no longer!

Love,

Sylvia



GUMMY VITAMINS- YES OR NO?

Many kids' cases of Geographic Tongue have been resolved with a simple vitamin supplement. Often parents will try the simple gummy vitamins first since kids love them and so there is no problem getting

them to take them. There is no pill swallowing issues and it is easy to increase the dosage with no complaints. The typical children’s gummy vitamin like Lil’ Critters below considers two gummies a serving.

THE INGREDIENTS ARE:

Glucose Syrup, Sucrose (Sugar), Gelatin, D Alpha Tocopherol Acetate (Vitamin E), Natural Flavors, Ascorbic Acid (Vitamin C), Citric Acid, Zinc Gluconate, Lactic Acid, Retinyl Acetate (Vitamin A), Natural Colors, Annatto Extract, Black Carrot Juice Extract, Turmeric (Cucuma Longa), Biotin (Vitamin H), Calcium D-Pantothenate, Cholecalciferol (Vitamin D3), Folic Acid (Folate) Vitamin B12, Pyridoxine HCl, Potassium Iodide, Cyanocobalamin, Choline Bitartrate, Fractionated Coconut Oil, Beeswax (Apis Mellifera), Inositol.

There may be better (more natural) vitamins than the Lil’ Critters. I simply chose this one because it is readily available and well known.

The key vitamins that usually help with Geographic tongue are B-12, Folic Acid (or Folacin or Folate), other B vitamins and Zinc. So if the problem is B-12, Folic Acid, or Zinc these vitamins might help. (Possibly others as we’ll see later.)

Note that it uses natural colors since artificial colors are a possible irritant for kids with Geographic Tongue. Also note that the sugar contained in Lil’ Critters Gummy Vites is a combination of Glucose and Sucrose not “Sucralose” and contains no high fructose corn syrup both of which should be avoided. A simple search of the words Sucralose dangers will give you a plethora of information on how toxic the stuff really is. It is actually a synthetic combination of sugars and chlorine, not natural at all. Who wants to eat chlorine? It also is known to kill the probiotics we are trying to foster thus making the digestive system more lactose intolerant and less resistant to outside stresses. Sucralose can actually make you crave carbs. Great diet food, right? If you’re in the processed food industry that is.

VITAMIN DOSAGES

Children’s doses really depend more on weight than age. (Most medicine labels go by age, which is incorrect.) Obviously, two children who are both age nine, but one weighs 120 pounds and the other weighs 60 pounds, need different dosages. It’s not their age that matters—it’s the weight!

That being said, it is almost impossible to overdose on water-soluble vitamins (B, C, etc.) if you are drinking enough water! The key is drinking enough water! Most kids eat too much sugar, caffeine, artificial sweeteners, etc. (My kids think a Coke is a rare treat and even they don’t drink enough water!) Of course, drinking too much water will flush the soluble vitamins out so they shouldn’t be drinking gallons either. Drinking too much water can be a sign of diabetes.

Supplement Facts			
Serving Size: 2 Gummy Bears		For 4 & Up 2 Gummy Bears	
Servings Per Container: 95			
Amount per Serving			
Calories Total	15		
Amount per Serving			
		% Daily Value*	
Total	4 g	1%	
Carbohydrate			
Sugars	2 g		
		% Daily Value	% Daily Value for 4 & Up
Vitamin A	2100 IU	84%	42%
Vitamin C	20 mg	50%	33%
Vitamin D	400 IU	100%	100%
Vitamin E	16.5 IU	165%	55%
Vitamin B6	2 mg	286%	100%
Folate, Folic Acid, Folacin	260 mcg	130%	65%
Vitamin B12	6 mcg	200%	100%
Biotin	60 mcg	40%	20%
Pantothenic acid	5.2 mg	104%	52%
Iodine	42 mcg	60%	28%
Zinc	2.7 mg	34%	18%
Choline			40 mcg*
Inositol			40 mcg*

* Daily Value not established.
+ Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

GRANDMA'S "MIRACULOUS" VITAMIN

Even though it took Sylvia several weeks to rid her daughter of Geographic Tongue, a grandmother from the UK found a simple solution to her granddaughter's Geographic Tongue that worked much quicker! The vitamins available in the UK are often quite different from the ones available here in the U.S. but here is what Grandma Christine had to say:

Hi Tim,

I have meant to email you for ages to let you know the success we have had in curing my 5 year old grand-daughter's geographical tongue. She had it for 2 years, and last February she simply could not eat her dinner one night, as her tongue was so sore. I tried the internet to help my daughter a few years ago as she had it too, but with no success. However this time when I looked I found your advert and immediately downloaded the book, although I must admit I had reservations about it helping, but I was desperate because a child had it... and it worked in 2 days.

Thank you very much for your help.

Christine

Note: Two days is not typical. It usually takes at least a week and often longer to see results, but this was a case where the child was not ill or having difficulty absorbing the vitamins. She simply wasn't getting what she needed. Once she was given the proper building blocks, her body went to town resolving the issue. Her grandmother wanted me to be sure to share with you that she simply went to the local "Morrison's" grocery store and purchased an over the counter vitamin mixture. She said, "I want you to tell anyone who contacts you from the UK that I bought Feroglobin from Morrison's. It is such a horrible painful condition that I really want this passed on."

WHAT'S IN IT?

So that begs the question, what's in the magic "Feroglobin"? Perhaps the rest of us who are not from the UK can benefit as well.

The full name is Feroglobin-B12 and it is available in a liquid form making it very easy for toddlers to take. The dosage is one teaspoonful (five milliliters) twice a day. The primary ingredients are Iron and B-12. This is interesting because some studies have shown Geographic Tongue to be related to anemia, which is primarily a deficiency of iron but also of B-12. Up until this point, I haven't mentioned Iron much but it is another key mineral to eliminate anemia. Since the daily dosage is two teaspoons we can compare the middle column with the Lil' Critters gummy vitamins.

FEROGLOBIN-B12® LIQUID VS. GUMMY VITES

Feroglobin B12 1-tsp	Feroglobin-B12 2-tsp (Recommended Daily Dose)	2 Lil' Critters Gummy Vites (Recommended Daily Dosage)
		Vitamin A 2100 IU
Vitamin B1 4 mg	Vitamin B1 8 mg	
Vitamin B2 1 mg	Vitamin B2 2 mg	
Vitamin B6 2 mg	Vitamin B6 4 mg	Vitamin B6 2 mg
Vitamin B12 5 mcg	Vitamin B12 10 mcg	Vitamin B12 6 mcg
Vitamin C 10 mg	Vitamin C 20 mg	Vitamin C 20 mg
		Vitamin D 400IU
		Vitamin E 16.5 IU
Folic Acid 150 mcg	Folic Acid 300 mcg	Folic Acid 260 mcg
		Biotin 60 mcg
Pantothenic Acid 2 mg	Pantothenic Acid 4 mg	Pantothenic Acid 5.2 mg
Calcium 10 mg	Calcium 20 mg	
Niacin 8 mg	Niacin 16 mg	
Iron 7 mg	Iron 14 mg	
Zinc 5 mg	Zinc 10 mg	Zinc 2.7 mg
Copper 250 mcg	Copper 500 mcg	
Manganese 250 mcg	Manganese 500 mcg	
Lysine 40 mg	Lysine 80 mg	
Iodine 40 mcg	Iodine 80 mcg	Iodine 42 mcg
Honey 100 mg	Honey 200 mg	
Malt 500 mg	Malt 1000 mg	

If we assume that Feroglobin-B12® liquid is the perfect supplement for treating Geographic Tongue in children (and it might well be) then we see that the Gummy Vites lack much of what is necessary to produce the desired results. I think the critical factors in Feroglobin-B12® liquid is Iron, B-12 and Zinc. The Lil' Critters has zero Iron, 60% as much B-12 and only 27% as much Zinc. Although Lil' Critters does have other excellent vitamins that Feroglobin-B12® liquid doesn't have like A, D and E they are probably not going to help in most cases of toddler Geographic Tongue.

FLORADIX IRON + HERBS LIQUID SUPPLEMENT

There are adult gummy vitamins that do contain Iron and may closer

correlate with the Feroglobin-B12® liquid and thus actually be more appropriate for treating Geographic Tongue in toddlers.

Unfortunately, I have not been able to locate a source of Feroglobin-B12® liquid in the U.S. Although as a kid I remember my mother was taking care of a foster child who was anemic and the Doctor prescribed something similar way back then. I think if you look there are websites that will ship it to the U.S. from the UK.

Supplement Facts		
Serving Size: 1/2 measuring capful (10 mL/2 tsp)		
Servings Per Container: About 50		
	Amount Per Serving	% Daily Value*
Calories	20	
Carbohydrates	5g	
Sugars	5g	-
Vitamin B1	2.5mg	167%
Vitamin B12	7.5mcg	125%
Vitamin B2	4mg	235%
Vitamin C ⓘ	10mg	17%
Vitamin B6 ⓘ	2mg	100%
Iron (elemental) (from Ferrous Gluconate)	10mg	56%
* Based on a 2,000 calorie diet		
** Daily Values not established		

Other Ingredients: Aqueous extract from Carrot, Nettle Wort, Spinach, Quitch Roots, Angelica Roots, Fennel, Ocean Kelp, African Mallow Blossom, Orange Peel, Juice Concentrates (Pear, Red Grape, Black Currant, Orange, Blackberry, Cherry, Beetroot), Yeast (Saccharomyces Cerevisiae) Extract, Honey, Rosehip Extract, Wheat Germ Extract, Natural Flavor.

After a lot of searching, I did find a couple of close products in the U.S:

- 1) PERQUE [Hematin Anemia Guard](#), which is in pill form.
- 2) [Floradix Iron + Herbs](#), which is a liquid, that is very similar to the Feroglobin.

Here are the ingredients of Floradix. Note that one dose is 2 tsp. (the same as two doses of the Feroglobin). Although they recommend taking two doses a day you would be taking twice as much (4 tsp.) in order to get almost the same as 2 teaspoons of Feroglobin.

RECOMMENDED USE: ADULTS AND CHILDREN 4 OR MORE YEARS OF AGE: TAKE TWO TEASPOONFULS TWICE DAILY BEFORE MORNING AND EVENING MEALS.

In the following table, we will compare the Floradix to the Feroglobin.

We see that the Floradix liquid does have many of the key ingredients of Feroglobin. It is also supposed to taste good although I haven't tried it. Floradix does contain Honey but doesn't list the amount.

My major concern with the Floradix would be the lack of Folic acid, Zinc and Iodine but these could be made up with a couple of Gummy vitamins.

Therefore, for those children unable to get Feroglobin a combination of [Floradix Iron + Herbs](#) and gummy vitamins might be the best solution.

Feroglobin-B12 2-tsp	Floradix Iron & Herbs Liquid 2-tsp
Vitamin B1 8 mg	Vitamin B1 2.5 mg
Vitamin B2 2 mg	Vitamin B2 4 mg
Vitamin B6 4 mg	Vitamin B6 2 mg
Vitamin B12 10 mcg	Vitamin B12 7.5 mcg
Vitamin C 20 mg	Vitamin C 10 mg
Folic Acid 300 mcg	
Pantothenic Acid 4 mg	Pantothenic Acid 5.2 mg
Calcium 20 mg	
Niacin 16 mg	
Iron 14 mg	Iron 10 mg
Zinc 10 mg	
Copper 500 mcg	
Manganese 500 mcg	
Lysine 80 mg	
Iodine 80 mcg	
Honey 200 mg	Honey ? mg
Malt 1000 mg	

IRON PHOBIA

People in the U.S. fear getting too much iron. I think this fear is excessive as Feroglobin is used extensively on young children in the UK without any harm done. Of course, you don't want your kids to drink the whole bottle.

Feroglobin-B12 does carry this warning:

Feroglobin-B12 has no known side effects when taken as directed. This product contains iron, which if taken in excess may be harmful to very young children. Keep out of sight and reach of children. Do not exceed the recommended intake. In case of overdose, seek medical advice immediately.

For this reason, many children's vitamins in the U.S. do not contain any Iron at all. This may be a reason that even children that are taking vitamins may still have deficiencies that result in Geographic Tongue. Vegetarians are especially susceptible to anemia because the major sources of B-12 are beef, eggs, crab, fish, mackerel, milk and milk products, oysters, pork and salmon. The major sources of Iron are eggs (especially egg yolks), liver, lean red meat (especially beef), oysters, poultry, dark red meat, salmon and tuna.

That leaves the following major sources of Iron for vegetarians: dried beans, dried fruits, whole grains and iron-fortified cereals. Unfortunately, Iron from vegetables, fruits, grains, and supplements is harder for the body to absorb. Moreover, leafy green vegetables like spinach have seen drastic

reductions in Iron levels. Due to modern agriculture, the food you eat doesn't have the nutritional value your grandparents got from eating the same food. For instance, incredible as it seems... today you would have to eat 60 servings of spinach to get the same amount of iron as in one serving of spinach in 1948!

THE KEY VITAMINS FOR TREATING TODDLER GEOGRAPHIC TONGUE:

Toddlers with Geographic Tongue should benefit from a daily dose of:

- B-12 10mcg to 1000+ mcg
- Folic Acid 300 to 400 mcg
- Plus B1, B2, B6
- Iron around 14 mg
- Zinc around 10 mg

It is possible to overdose on Zinc. As an adult, I've done it by taking a 75 mg Zinc tablet along with a multi that also had Zinc in it. I was probably taking around 100 mg of Zinc for several days in a row. Basically, it made me extremely, irresistibly, sleepy. It was not a normal sleep. After sleeping an hour or more, I was fine. You do want to be careful with overdosing on minerals like Iron and Zinc. Water-soluble vitamins like all the B vitamins are almost impossible to overdose on as long as you drink enough water.

SO HOW DO YOU KNOW HOW MUCH WATER IS ENOUGH?

Dry skin? Not enough water! Acne? Too much greasy food and toxins like preservatives, food color, etc. and not enough water! Just look at the signals your body is giving you!

OIL-SOLUBLE VITAMINS

Oil-soluble vitamins (E and A), on the other hand, need a bit more care. Oil-soluble vitamins are the ones that come in gel and are oily if popped. They require oil to be absorbed and can in very rare cases become toxic if the person doesn't eat enough oil (like that's going to happen in our fast food age) but you do need to be aware of the possibility.

THE RIGHT DOSAGE

All that being said, the easiest way to find the right dosage for your child is to assume that the adult dosage is for someone who weighs 150 pounds and divide it by your child's weight. So if your child weighs 50 pounds divide the adult dosages by 3. If you are dealing with an infant, use infant vitamins, preferably liquid.

ECZEMA AND PSORIASIS

Some children seem to be very susceptible to eczema and/or psoriasis. There seems to be a correlation between eczema or psoriasis and Geographic Tongue. I think it might be that they both stem from the same nutritional needs. (By the way applying Vitamin E directly on eczema will generally clear it up in a couple of days. Just pierce a gel cap, squeeze out the liquid and rub it on. It is a bit greasy but it works wonders!) In addition you may want to increase the oil based vitamins in their diet as well as calcium, magnesium and zinc.

CONCLUSION

Geographic Tongue in Children and Infants is very similar to that of adults. It is probably more common because children tend to be fussy eaters more often and haven't learned to eat a varied diet.

Children are often treated with antibiotics for every sniffle and may not get probiotics to reestablish the healthy intestinal flora needed to get their systems back on track. In addition, they eat too much junk food, sugar and preservatives and don't drink enough water to flush all those toxins out of their systems.

Children with Geographic Tongue probably are deficient in the same vitamins as adults and they should take vitamins based on their weight not their age. Often they will "outgrow" it when they start eating a healthier more balanced diet, rich in B-12, Iron and zinc.

CHAPTER 10

GEOGRAPHIC TONGUE AND FILLINGS



Although Leona had several bad patches of Geographic Tongue, her problem wasn't nutrition, or even acidic foods. Solving Geographic tongue is not a "one-size fits all" proposition.

One problem with Geographic Tongue is that every case is different. It almost seems that every case has a different cause, but if you really try you can find the key. Fortunately, Leona is very detail oriented. She tracked her Geographic Tongue's progress in pictures and when we are done today, you will see what we believe to be undeniable proof that she did indeed find and eliminate the cause of her Geographic Tongue.

Here is what Leona had to say in her own words:

Tim, when I awoke this morning, I thought about your HealthyTongueSecrets and how thorough you are and how wonderful and helpful you are.

I ... had a great feeling of improvement... I thought... Tim is my best friend!

Even though we are strangers, you helped me...you helped my life... you feel my pain...you understand completely.

Thank you.

The picture at the beginning of this chapter is Leona's tongue. By now, I'm sure you know that the medical term for Geographic Tongue is benign migratory glossitis. Of course, the "migratory" part refers to the fact that it tends to move around on your tongue.

In Leona's case, it was always in the same spot on the tip of her tongue and she also had smaller spots on the edges of her tongue. Doctors told her the same thing we've all heard. It's nothing to worry about, etc., etc.

Here is her story in her own words:

In 1977, I chipped my upper left front tooth eating a shelled sunflower seed. The tooth slowly became dead and discolored slightly. In 1984, a dentist performed dental work and he stuffed a compound into the back of my tooth to maintain its proper coloring. The two front teeth matched, but my repaired tooth was not strong.

In 1993, the tooth crumbled while eating a dried Apricot and another dentist repaired it. The dentist provided a temporary tooth implant into my gum line. About a week later, a permanent implant was rooted into my gum line. I noticed that the gum line was darkened as it was metal and I had no idea that it was the beginning of my mouth problems.

Here is a picture of the roof of Leona's Mouth. See how the front tooth has a filling on the inside and a white enamel front?



Notice where the filling is?

Back to Leona:

Shortly afterward, on a trip to France, I remember my tongue feeling as though I had burned it on hot chocolate, but I did not have hot chocolate.

I did schedule with an Ears, Nose Throat Doctor, but there was no success and no answers from the discussion in that appointment. I continued to suffer with Geographic Tongue.

When my tongue would get sore, I did not understand it. I thought it was the pollution. Later, as I researched, I thought it was from nutrition. From 1993-2011, I suffered with Geographic Tongue.

No one helped me. All this time, I never stuck my tongue out. Sadly, I did not even show my husband my tongue until late Feb 2011. He may have wondered why I do not read a book to my child often. It hurts to talk sometimes. My "never-getting-better" Geographic Tongue also changed my social life.

But in Feb and March 2011, I had my husband take photos of my tongue and teeth. He had to finally know my daily grief.

Often when treating Geographic Tongue the person who has it eventually puts enough pieces of the puzzle together and finally has an "AHA" moment. Here is Leona's AHA moment:

I was absolutely fine until that 1993 dental work. Since then, I have continued to suffer with Geographic Tongue. When I ordered your book, Healthy Tongue Secrets, and read it fully and painfully one evening... Your book was the answer!

When I read the Root canal sentence... BINGO! ... a root canal problem! It had to be my teeth! All this time, my tongue rested on amalgam/metal. My tongue was surrounded by amalgam/metal.

On March 3rd 2011, I saw my dentist and he told me he thought a person was born with Geographic Tongue. (My dentist is still learning about Geographic Tongue.)

On March 17th, 2011, a new root canal and temporary new implant was put in by a specialist. This time, there is only needle-width metal inside the implant.

Already my tongue is much better! On a scale of 1-10 with 10 being terrible, the sight of it used to be 8/10 and now is a 3.

As far as pain... it used to range from a 5 to 10 out of 10 and now it is a 3 out of 10.

You can see the difference of my Geographic Tongue from when the new temporary 2011 implant was put in. (just a few weeks)

I still have other amalgam fillings from the 1980's. So my tongue is not perfect yet but that one spot is much better. In the last few weeks, I show my tongue to my husband every day...he is my proof that my tongue starts its discoloring under my amalgam/metal fillings. I plan to have them removed soon to continue healing my tongue. Tim, I thank you with all my heart! Thank you for being patient with me ...and my random e-mails and updates.

Leona



Before



A Couple of weeks after tooth replacement

Although her tongue isn't perfect yet, notice that the one spot that was constantly resting on the mercury based filling healed up almost instantly once the mercury was removed. This is a case where the heavy metal toxins were resting right on her tongue. Her body is probably overflowing with heavy metals. So just removing the one contact point helped that one spot immensely, but it will take a while for her body to eliminate the metals stored in her liver and the rest of her body. Nevertheless, it is a major start.

MERCURY POISONING

See chapter on [Burning Mouth Syndrome](#) for more information on mercury poisoning

WORKING WITH CHEMICALS

I recently got a letter from a woman who works with chemicals who is having a very hard time getting rid of her Geographic Tongue. I hadn't thought about it before, but that would make sense that the additional stress of the chemical toxicity on the body would show up in the tongue. Then a few days ago, I spent several hours using a chemical jewelry cleaner without wearing gloves and the next day my tongue had a white coating and several new patches of Geographic Tongue. Chemical exposure can be a problem that you will want to eliminate.

In the next chapter, we will cover some chemicals that most of us actually put in our mouths to our great detriment.

CHAPTER 11

GEOGRAPHIC TONGUE AND TOOTHPASTE

THE PROBLEM WITH TOOTHPASTE

Unfortunately, most ordinary Fluoride toothpastes contain something called Sodium Lauryl (or Laureth) Sulfate which happens to be a very harsh soap (used in shampoo and garage floor cleaner, among other places). It is what makes the toothpaste “foam up” like soap. This Sodium Lauryl Sulfate has been known to irritate tongues and create microscopic damage to the oral tissue that lines the inside of your mouth, which then can lead to Canker Sores or Geographic Tongue.

According to Dr. Harold Katz of TheraBreath Clinics,

“SLS (sodium lauryl sulfate) acts just like a detergent. It is used in the laboratory as a membrane destabilizer and solubilizer of proteins and lipids. SLS is used in toothpaste to emulsify (mix) oil and water based ingredients together. In your toothpaste, it creates the foam you get when brushing. Since it is classified as a soap, you will easily understand, why this ingredient can cause drying inside the mouth for many individuals. “

The dryness is one of several factors that can cause other tongue and mouth problems.

JASMINE’S STORY



Jasmine lives in New Zealand surrounded by beautiful green pastures and thousands of sheep. She lives a natural life... healthy food... but sometimes a natural life has its trials too.

At the age of two, Jasmine caught a case of hand, foot and mouth disease. Although Jasmine lives in sheep country, doctors are convinced that hand, foot and mouth disease (which primarily affects toddlers like Jasmine younger than five) is caused by an entirely different virus than hoof and mouth disease that affects sheep and cattle.

That is little consolation if it’s your beautiful two-year-old daughter that is affected by the virus. Just ask Sam, Jasmine’s dad. Imagine how Sam felt when he learned that his beautiful little daughter had a terrible virus.

This virus belongs to the “Enterovirus group” and is therefore a near cousin to the poliovirus and the coxsackie virus. With this virus, poor little Jasmine would start with a fever and after a couple of days, painful sores would develop in her mouth. They begin as a small blister that often becomes an ulcerated blob of pus. Imagine her tears and Sam’s agony as over the next few days Jasmine’s poor little body is covered in a rash of raised spots, sometimes with more blisters. The rash may begin on her hands and feet but then it spread to other places... even knees, elbows and even more sensitive areas of the body. Often even drinking water is painful because the sores in her mouth were so bad.

This nasty virus tore up this sweet little girl's system and required lots of medicine and literally trashed her immune system. With all these stresses it's no wonder her poor little two year old system couldn't handle one more stress. By the time, she was 3 ½ years old, her tongue was so sore that she hated to have her teeth brushed. She would literally throw a tantrum every time.

SAM LOOKS FOR A SOLUTION

Jasmine's dad Sam was concerned enough to start searching the web. When he came to me, he discovered that SLS in toothpaste irritates some tongues. Here is what he had to say,

"within a week her tongue is completely healed. I am amazed and wish I'd had a diagnosis sooner... the initial results are out of this world, I just wish I had photographed it to show the change. She's a very different little girl now, there are no tears or arguments when it comes to teeth brushing now!!"

Unlike hand, foot and mouth disease, Geographic Tongue is more subtle, and can't be eradicated simply by locating the single virus and eliminating it. Doctors will tell you that it is "nothing to worry about." It isn't life threatening and often isn't painful... although in both Ethan's and Jasmine's case it was painful...

So painful in fact that it caused them to avoid eating and brushing. Doctors will also tell you that "Children will often outgrow it" which they might... but then again they might not. Another key in eliminating Geographic Tongue in both children and adults is to eliminate chemical irritants including SLS, fluoride, sucralose, artificial sweeteners, artificial colors, etc.

OTHER IRRITANTS

In addition to chemical irritants there are also "natural irritants" like orange juice, grapefruit, tomato and pineapple.

THREABREATH HELPS GEOGRAPHIC TONGUE

I personally have found Dr. Katz' [TheraBreath Oxygenating Toothpaste with Fluoride and Aloe Vera](#) to be very soothing for my tongue when combined with the Oral rinse. It also seems to help eliminate the Geographic Tongue Rings. It uses Sodium Lauroyl Sarcosinate instead of Sodium Lauryl Sulfate, which seems to make it milder and much more soothing than ordinary toothpaste. (It also foams a lot less and is a soothing clear gel). It has other benefits as well including using a sweetener called Xylitol, which is known to reduce cavities. I highly recommend [TheraBreath Oxygenating Toothpaste](#).

I tried TheraBreath's TheraBrite Plus toothpaste because it contains Zinc and I thought it might be helpful. It lacks Fluoride but actually seemed more irritating to my tongue. I couldn't wait to go back to the regular TheraBreath Oxygenating Toothpaste.

You can also get a TheraBreath Starter Kit that includes the toothpaste, mouth rinse and a very gentle easy to use tongue scraper. I use mine all the time. The toothpaste is a bit expensive but worth it! The [TheraBreath Starter Kit](#) will probably save you a few dollars over buying each item separately. When using a tongue scraper be gentle. Some tongue scrapers are much too sharp and should not be used. All it takes is a gentle scraping to remove the liquid coating you are not trying to remove the papillae.

XYLITOL

By the way, you can get Xylitol to use in place of Sugar and other artificial sweeteners. [Xylitol](#) is probably much healthier with fewer calories and doesn't have an aftertaste. It has also been found to fight cavities and yeast.

Speaking of sweeteners, some people have suggested that,

"If you rub honey on your tongue and let it sit there for about 10-15 minutes, the Geographic Tongue will go away. It may come back but not near as fast as before. Now it's about every 2-3 months as opposed to almost every day."

My guess is that the antibacterial nature of honey might have something to do with it. Honey is also a major ingredient in Feroglobin-B12.

CHAPTER 12

OTHER FACTORS IN GEOGRAPHIC TONGUE

IN ADDITION TO VITAMINS AND REDUCING STRESS WHAT ELSE CAN WE DO?

In this chapter, we will look at a variety of things that have been recommended by Geographic Tongue sufferers.

Our modern society is so brainwashed that we are always looking for “magic bullets” to solve our problems. The pharmaceutical industry is happy to let us believe it. We must be careful to guard against thinking that vitamins are the magic substitute for drugs. Although they go a long way toward helping, vitamins aren’t magic. Vitamin C does wonders in eliminating the byproducts of stress and other vitamins like A and E do help.

Since I believe Geographic Tongue is a systemic problem, meaning that it is an indicator of a major problem with your system, you have to take a systemic approach.

Anything that you can do to improve the overall health of your system will reduce the severity of your tongue problem. Give your body a fighting chance and it will repair itself. All it needs are the proper conditions and the necessary building blocks. **Vitamins are only one of the building blocks.**

Therefore, we need to look at things that build up our bodies and things that tear it down. Obviously, we want to add more of the things that build it up and remove as many of the things that tear it down as possible.

THINGS THAT BUILD UP YOUR BODY

We’ve already mentioned several things that build up our bodies like vitamins and minerals, adaptogens like Ginseng, certain herbal teas, probiotics, and getting enough sleep, etc.

THINGS THAT TEAR DOWN YOUR BODY

Some of the things we have mentioned that tear down your body are stress: mental, emotional and spiritual. In addition, many of the other things we’ve mentioned fit under the category of physical stress like heavy metals, chemicals, allergens, etc.

The one time I am in favor of using chemical drugs is when they help knock down serious predatory viruses. Knocking down predatory viruses and bacteria is a way to give your body a fighting chance to rebuild itself when it is losing the battle, but the real long term key is to eliminate the cause of the original weakness—the harmful weakening activities that made you susceptible in the first place.

IRRITANTS

In addition to food allergies, there are also irritants like hot peppers and acidic foods like orange juice. If your tongue is already tender, these irritants should be avoided simply because they can cause pain. After all, even if you get them on healthy skin they are irritating, let alone on already irritated skin!

WHAT ABOUT TOPICAL STEROIDS?

Some doctors and dentists have recommended topical steroids. That is a steroid in cream form sometimes called Kenalog in Orabase. Steroids work by simulating the products of your adrenal glands but can actually cause your adrenals to shrivel up and stop producing. Some other steroids are cortisone and hydrocortisone. Another method of application is a low-dose steroid spray as used to treat asthma, called beclomethasone 50µg. You spray it on three times a day, trying to leave as much as possible on the tongue.

I like to think of steroids like running your car on jet fuel. Yes, you will go faster for a while but you will probably burn it up in the process. Steroids are wonderful but extremely dangerous things. They also seem to help Candida grow stronger so the long-term effect is worse than the start. They do nothing to help your system return to the balance it needs.

Steroids are like kicking your body into overdrive. If you are healthy and in good shape, you can run that way for a little while, but if you are suffering because your system is run down and you kick it into overdrive what happens? You end up using up your reserves faster! In the short run, you get better because instead of running in super-efficient conserve-all-your-resources mode, you are running “pedal to the metal.” Unless you find some new reserves quickly, your tank is going to be empty and then you will be in even bigger trouble. Unfortunately, when your resources are depleted instead of coasting to a stop as a car would, it is more like hitting a brick wall! Steroids are serious business and not to be taken lightly.

ANTIHISTAMINES AND ALLERGIES

Another treatment I have heard about is a mixture of Benadryl®, 12.5 mg per 5 mL, and Kaopectate or Maalox. Basically, you mix equal parts and swish one teaspoonful around in your mouth every two hours and then spit it out. This has been used for mouth sores or ulcers in general. The official name of Benadryl® is diphenhydramine syrup (Benylin®). Diphenhydramine is an antihistamine. Histamines are produced by the body in reaction to certain attacks and cause itching, sneezing and other reactions to help your body fight off the attack. Benadryl® has been used to relieve the itching due to insect bites, mild cases of sunburn, poison ivy or oak, and other minor skin irritations.

Why would this help? It is used either as a salve or in allergy medicine. Obviously, the Kaopectate is added to the mix to help it to stick to your tongue. If your problem is being caused by an allergic reaction to something, the histamine blockers may calm some of the reactions of the tongue.

It might be helpful in an acute situation if your tongue was swelling or something, but long term I doubt it will be of much help and actually might cause additional problems.

If an allergy is what is sapping your resources, it would be much better to find the source of your allergy and eliminate it. Perhaps it is a food allergy or an irritant like dust. In [The Yeast Connection: A Medical Breakthrough](#) Dr. William G. Crook covers some easy ways of detecting food allergies. In addition to just yeast related allergies, some people have claimed that yeast allergies were closely related to their Geographic Tongue problems.

In an article from Reuters News service, published on May 26, 2004, entitled “*Allergies May All Be in the Gut,*” they report that a recent meeting of the American Society for Microbiology in New Orleans, Dr. Gary Hufnagle, an associate professor of internal medicine and of microbiology and immunology at the

University of Michigan, found that Antibiotics kill bacteria, but they can kill beneficial bacteria living in the intestines and colon. Once these helpful bacteria are killed off, patients may be more susceptible to allergies and asthma. The solution? Restore a healthy digestive system by reintroducing the “Probiotics” of Lactobacillus Acidophilus.

Interestingly, another report given at the same meeting by Dr. Lin Tao of the University Illinois at Chicago College of Dentistry stated that Lactobacillus Acidophilus helps prevent infections such as diarrhea in children and could become a weapon in the war on AIDS. Yes, there is now scientific evidence that the use of helpful bacteria “Probiotics” may actually bind with the AIDS virus and render it harmless.

More than 100 healthy volunteers gave the researchers saliva samples from which they isolated 170 different strains of Lactobacillus! Testing showed that nine of these strains were probably capable of binding to HIV.

The investigators found one in particular—L. fermentum OLB-19a—stopped HIV from infecting immune cells!

CANDIDA AND GEOGRAPHIC TONGUE

In addition to probiotics, many people have found that after taking Nystatin® the symptoms of their Geographic Tongue have improved. Throughout this chapter, I have said that I think the cause of Geographic tongue is the “terrain” or overall system weakness. This is one reason why Geographic Tongue is common in people with AIDS. It is possible that Candida takes hold in weakened immune systems and those systems are showing their weakness by also having Geographic Tongue. In other words, anything you can do to improve your overall health will improve the condition of your tongue.

Even though Candida isn't causing the Geographic Tongue, by reducing the stress caused by the Candida we can improve the chances of improving the terrain and providing an opportunity for the deficiencies that are causing the Geographic Tongue to subside.

Candida's presence in the body also inhibits the body's ability to absorb B vitamins. Taking 50-100 mg Vitamin B complex might be helpful. In addition, 3 mg of Biotin per day is said to help break the transformation cycle from the yeast to the fungus form.

Molybdenum has also been found to be helpful in some cases of Geographic Tongue and candida. According to modernherbalist.com,

“Molybdenum is a trace mineral... it can make a dramatic difference in the health of individuals coping with candida infection, multiple chemical sensitivities or certain types of food or chemically induced migraine headache, as well as the adverse effects of alcohol over consumption.”

Your body uses Molybdenum to manufacture the enzymes, (aldehyde-dehydrogenase and aldehyde-oxidase) which allow the liver to eliminate a neurotoxin called acetaldehyde. Acetaldehyde is a waste product produced by yeast and fungal organisms. This waste accumulates in unhealthy intestinal environments, circulating blood, liver and other tissues and organs of individuals with candida albicans overgrowth and is a major reason yeast overgrowth saps your strength reduces your immunity and lowers your resistance to allergens like mold, etc.

See the chapter on [Candida](#) for more information on Thrush.

PHYSICAL TREATMENT METHODS TO HELP BUILD YOU UP

Other physical treatments include colon cleansing and/or detoxifying the body. Basically, the idea is that things like gluten build up on your intestinal walls and block them from absorbing the necessary nutrients. The idea is to scrub the walls clean so they can absorb nutrients again.

I've just been reading a book called [The Fat Burning Diet](#) by Jay Robb (an excellent book and diet by the way) and it talks about wheat gluten (page 28-29). He also covers gas, bloating and yeast infections, lactose intolerance, cholesterol, slow metabolism, good fats etc.

He says that the main reason wheat is so bad for most people is because most people are actually allergic to the gluten in it. The more gluten the worse it is for you. It is one of the main reasons for weight gain in the US. He includes a test for how to determine if that is your problem. I think Gluten is also one of the main reasons that our intestines get clogged up. Gluten is almost glue so it sticks to the sides of the intestines and makes absorption more difficult.

In nature, whole grains at least have a lot of fiber to help scrape the intestines clean but processed flour takes all that out so all that is left is the glue. Cleaning the glue off the walls of your intestines is a good idea for many reasons especially improving absorption.

BRUSHING OR SCRAPING

Many people try to attack the Geographic Tongue problem directly by brushing their tongue to clean off the surface. Brushing your tongue with a 50/50 mix of hydrogen peroxide and water is often helpful. Hydrogen Peroxide (followed by gently using a [tongue scraper](#); avoid swallowing). I have done this and find it helpful.

ANTI-BACTERIAL TREATMENTS

FLAGYL

If you are suffering from bacteria or parasites that are tearing you down, Flagyl can be very effective. Killing off the parasites on a regular basis (every six to twelve months) so you can get a fresh start is a common practice in many parts of the world. In fact, unlike the U.S., in most of the world there is no prescription necessary for Flagyl. It has very few side effects other than a nasty reaction with alcohol. (It is used in aversion therapy for alcoholics.) Do not drink any alcohol while taking it. The typical dosage is one tablet (250mg) three times a day for ten days.

Many have found the following things helpful:

- Baking Soda
- Toothpaste containing fluoride, peroxide, and/or baking soda
- Tea Tree oil
- Salt (or rinsing with warm salt water)
- Black Walnut Hulls tincture
- Cinnamon
- Grapefruit Seed Extract
- Yogurt
- Fluoride (avoid swallowing)

The common thread between all of these is that they are all “antibacterial” in nature except the yogurt which doesn’t exactly kill the bacteria but it does replace it with “friendly” bacteria. It is possible that

Geographic Tongue is actually a rampant strain of unfriendly bacteria running around on your tongue. If it were related to "Candida," that could be one reason Doctors can't seem to find the responsible bacteria because they already "know" that candid is present in everyone. I think it is more likely that the Candida is just weakening your system and/or preventing you from absorbing the proper vitamins.

BLACK WALNUT HULL TINCTURE

Some people insist that Black Walnut Hulls tincture causes the white rings to vanish on contact, leaving only the sore behind, which then diminishes in size and clears up within four or five days. Apply six to eight drops and massage into the tongue with a toothbrush morning and evening. It is said to taste quite pleasant and there is no need to rinse. It is very soothing to the lesions and probably kills bacteria too.

[Black Walnut Hull Tincture](#)

CINNAMON

Another unusual treatment is cinnamon added to coffee. The recommended dosage was a quarter teaspoon per cup.

GRAPEFRUIT SEED EXTRACT

You could also try Grapefruit Seed Extract (GSE) at a dosage of five to ten drops in a glass of water. Swish the first mouthful around for fifteen seconds or so and then swallow the rest as fast as you can. It is said to kill off the Candida within two to three hours. [Grapefruit Seed Extract \(GSE\)](#)

TEA TREE OIL

A half drop of Tea Tree Oil on a toothbrush and brush your tongue and mouth. I have used this to help keep candida in check. It helps eliminate white coating on your tongue. I just rub an eyedropper with Tea Tree Oil in it on the toothbrush not really even squeezing it. [Tea Tree Oil](#)

FLUORIDE

One article I read recommended a stronger prescription version of fluoride called Gel-Kam, a Colgate prescription-only fluoride gel used for cavity prevention and treatment of sensitive teeth. An alternative product is "Ortho + Perio Treatment." Both are 0.4% fluoride treatments that you can obtain through your dentist. It is quite possible that by brushing your tongue the fluoride kills some form of bacteria that is growing on the tongue. Regular toothpaste is usually .24% fluoride. My major concern is that Fluoride is actually toxic. In the long run it may be more of a "tear you down than "build you up" item. Fluoride is so toxic they have even begun creating "training toothpaste" without it for kids who might accidentally swallow it. So using a high dose directly on your tongue would not be my first choice (or even my second choice).

BE CAREFUL WITH FLUORIDE

The above items are generally non-toxic (except to bacteria) Fluoride on the other hand is toxic. The FDA requires makers of toothpaste to place the following warnings on toothpaste:

"DO NOT SWALLOW. AS WITH ALL MEDICATIONS, KEEP OUT OF THE REACH OF INFANTS AND CHILDREN."

"USE ONLY A PEA SIZED AMOUNT AND SUPERVISE CHILD'S BRUSHING AND RINSING TO MINIMIZE SWALLOWING."

"KEEP OUT OF THE REACH OF CHILDREN UNDER 6 YEARS OF AGE. IF MORE THAN USED FOR BRUSHING IS ACCIDENTALLY SWALLOWED, GET MEDICAL HELP OR CONTACT A POISON CONTROL CENTER RIGHT AWAY."

This sounds more like chemicals to be locked up in the garage than something to put in your mouth.

Europe has actually banned fluoride in the water because of its toxicity.

Here is what some reputable scientists have said:

"More people have died in the last 30 years from cancer connected with fluoridation than all the military deaths in the entire history of the United States"

(Dean Burk, PhD, National Cancer Institute).

"Fluoridation is the greatest fraud that has ever been perpetrated..."

(Albert Schatz, PhD, Nobel Laureate).

"Fluoridation is the greatest case of scientific fraud of this century, if not all time"

(Robert Carton, EPA scientist).

Finally, it may be related to a host of diseases linked with aging, including arthritis (and other immune-related diseases), osteoporosis, and even Alzheimer's.

Therefore, I would try to stay away from the prescription strength version if possible.

It is very possible that the Fluoride in ordinary toothpaste is enough to kill off the bacteria. This may be the reason that it also prevents cavities, simply because it kills the bacteria that cause decay (not the fact that it hardens the enamel as the toothpaste commercials claim). This is another reason to take probiotics; they introduce good bacteria that help to keep the levels of bad bacteria down.

MORE THINGS THAT TEAR YOU DOWN

FOOD ALLERGIES

Some people have food allergies that seem to trigger their Geographic Tongue episodes. I know pineapple really tears up my tongue as does drinking a lot of orange juice. Acid in general may cause problems including Acid Reflux. One person recommended a prescription drug for allergy-related Geographic Tongue called Mycele; it is an anti-fungal medication. She said, *"You just suck on one of these and it stops Geographic Tongue dead in its tracks and will leave you alone for quite some time."*

Any of the treatments that work because they are killing "bad" bacteria will return unless you can establish "good" bacteria in the interim. This is why combining an antibacterial treatment with a "probiotics" treatment is a very good idea. Kill off the bad bacteria whether they are living on your tongue or in your intestines and then establish good bacteria with probiotics and yogurt. This will cover both the systemic problem and the bacterial possibility. It may also help with the absorption and digestion issues. So rather than thinking of it as taking a pill to cure your problem think of it like tilling up a garden and planting a new crop to replace the weeds.

OTHER TRIGGERS

Alcohol seem to make Geographic Tongue worse. It probably reacts badly with yeast and causes it to multiply. (Remember many mouthwashes contain alcohol.)

Some things that might trigger allergic reactions and Geographic Tongue include:

- MSG
- Wheat (or gluten)
- Pineapple
- Tomatoes (or Tomato Juice)
- Eggplant
- Spicy Foods
- Mold
- Acids (sour things)
- Acid Reflux
- Oranges (or Orange Juice)
- Grapefruit
- Sugar
- Yeast
- Alcohol
- Stress
- Chemical exposure

SIDE ISSUES- ECZEMA

Since there is a high correlation with eczema, in addition to the vitamin treatments and efforts to heal the terrain (your digestive system), you might want to try a healing oil like vitamin E oil to directly attack the worst symptom. Often Vitamin E oil applied directly to the skin will clear up Eczema in a few days. In addition other vitamins and mineral deficiencies may be related including magnesium and/ or Calcium.

CONCLUSION

There are about as many suggested treatments as there are people with Geographic Tongue.

VITAMINS

The key is to do whatever is necessary to improve the overall health and replace any depleted vitamins or minerals. Several vitamins are considered helpful including all B vitamins but especially B₂, B₆, B₁₂, Folic Acid, "Topical Retin-A" or Vitamin A and Biotin. Key minerals are zinc, calcium, lithium, molybdenum and magnesium. Also key are probiotics like various forms of lactobacillus and the Amino Acid L-Lysine.

REDUCE STRESS

In addition, reduce all types of stress to give the body more resources to put toward healing the tongue. Stress includes Physical, Mental, Emotional and Spiritual factors.

ELIMINATE CANDIDA

Reducing the stress might include eliminating Candida (yeast) or Mercury and using one of several tinctures and/or herbs, including Black Walnut Hulls tincture, Grapefruit Seed Extract and Tea Tree Oil to help fight bacteria.

FIGHT BACTERIA

Other methods of fighting the bacteria are Honey, Fluoride (avoid swallowing), Hydrogen Peroxide, using a [tongue scraper](#), Baking Soda, Toothpaste containing fluoride but no SLS, rubbing salt into the tongue (or rinsing with warm salt water), cinnamon or yogurt.

AVOID TRIGGERS

In addition to improving the positive factors, reducing the negative “triggers” is a step in the right direction. Mouth sanitation (brushing) is important but mouthwash could be a trigger because of the alcohol. Consider using an alternative to toothpaste and mouthwash such as hydrogen peroxide, tea tree oil or even [Xylitol](#).

PROPER OUTLOOK

An important factor to keep in mind is that your tongue is like a health meter, if you have tongue problems your body is trying to tell you that you are not healthy! You are susceptible to every disease that comes along, your body is living on its reserves and is crying for help!

IMPORTANT:

***When you see your Geographic Tongue problems getting worse
or reappearing...***

Stop- thinking of it as a disease

Start- thinking of it as a symptom

Your body is crying for help!

***This simple change of perspective will allow you to address the
problem in a healthier way.***

CHAPTER 13

TONGUE FISSURES



A CASE OF “CRACKED TONGUE”

The front of my tongue is covered in deep “cracks”. There are also hairline cracks all around the tip. I have been to several doctors who do not seem to know what causes it or what to do about it. It feels like I'm caught up in a nightmare! I really want my tongue to get better, maybe I'm over-reacting, but... I really need help!

Fissured tongue is considered another “benign” condition by the medical establishment, meaning that it won't kill you, but many who suffer with it, like the person above, think that doctors don't take it seriously enough! It is sometimes referred to as plicated, furrowed, grooved or even scrotal tongue. Doctors who want to get really fancy call it *lingua fissurata* and *lingua plicata*. All these words really mean the same thing “tongue with cracks”—really creative right? Throughout this book, you will notice that many of the tongue problems have simple descriptive names almost as if it was too much trouble to come up with a real name for the problem. Just say it in Latin and it sounds impressive.

Fissured Tongue is described as having many shallow or deep cracks, furrows or fissures on the top surface of the tongue. Different people have different sizes and depths of furrows. They may be the length of the tongue or radiate outward. It sometimes causes the tongue to look wrinkled. There can be many furrows or a single groove down the middle of the tongue with smaller grooves branching off from it. Doctors say the grooves can be between 2 and 6 millimeters deep! That seems awful deep to me! Six mm is about a quarter of an inch. I think that would be most of the way through my tongue!

Some newborn babies are born with furrowed tongues while other people get it at later stages of life. The fissures seem to increase in frequency and get worse with age. Some doctors have associated it with infection or malnutrition. Other doctors have associated furrowed tongue with an underlying condition (certain syndromes) or genetics.

Fissured tongue affects between one and five percent of the people in the United States, and as many as 21% of people in some other countries.

THE TOXIC TRIO: ARSENIC, MERCURY AND POTASSIUM IODIDE

Before penicillin was discovered in 1943, many diseases were treated with extremely primitive methods. Believe it or not, some treatments actually involved doses of lethal toxins like arsenic. If the disease didn't kill you, the "cure" might!

What does this have to do with fissured tongues you might ask? Well, in the early 1900's many patients were given massive doses of mercury and potassium iodide. These doses are recorded to have caused hair loss, tooth loss, **tongue fissures** and hemorrhaging in the bowels. Isn't it interesting to note that one of the side effects of mercury poisoning was tongue fissures?



Did you know:

- A standard silver filling is **50% mercury**, 30% copper, 14% tin, 14% silver and 1% zinc when it is new?
- After five years, those same fillings have only **27% mercury!**
- Worse than that, after 20 years that same filling is only **5% mercury!**

Source: Dr. Jaro Pleva, Ph.D., of Sweden, a corrosion scientist who specializes in mercury toxicity. He found only 27 percent mercury remaining in five-year-old amalgam fillings (remember new fillings have about 50% mercury). He found 20-year-old fillings to have less than 5% mercury.

WHERE DID ALL THAT MERCURY GO? IT CAN'T JUST DISAPPEAR!

According to Dr. Patrick Stortebecker, M.D., Ph.D.:

Dental mercury amalgams are not stable...they undergo CORROSION, and dangerous amounts of MERCURY VAPOR are daily released....that may be inhaled by the lungs and in that way enter the general blood circulation and pass into the whole body.

So in other words, the mercury actually evaporates (vaporizes) out of the filling and is breathed into our lungs!

The problem of mercury fillings is covered in depth in a following chapter although it could very easily belong here as well. For more information on how this toxic chemical can cause problems ranging from Burning Tongue to Alzheimer's, Chronic Fatigue, Malnutrition, and Depression see the chapter on [Burning Tongue](#).

CHRONIC FATIGUE SYNDROME, DOWN'S SYNDROME AND TONGUE FISSURES

An interesting correlation has been noted between various syndromes and tongue fissures. Both Down's Syndrome and Chronic Fatigue Syndrome sufferers seem to have a higher incidence of tongue fissures than normal. I do not think there is a cause and effect relationship between the two but possibly tongue problems and other problems are a result of a third problem such as some sort of malnutrition or even mercury poisoning.

PROTEIN MALNUTRITION

Some doctors have suggested that tongue fissures are a result of “protein malnutrition.”

Low stomach acid can cause problems digesting protein. Dr. Jonathan Wright, MD, medical columnist for *Prevention Magazine*, says, “If you lack sufficient stomach acid, heavy protein meals may not digest properly.” In addition, “most minerals are suboptimally absorbed.” He usually recommends taking Betaine Hydrochloride or Glutamic Acid Hydrochloride tablets (available at health food stores).

Many people need acid supplementation even though the media is always talking about too much acid. It is actually possible that many people who are taking antacids actually have the opposite problem and are just aggravating the situation. You should not take acid supplementation if you have ulcers, or are taking anti-inflammatory drugs like Indocin or cortisone, but many people with poor absorption, “acid reflux” or hiatal hernia can be improved by increasing the level of stomach acid through supplementation.

In the words of Dr. Wright,

Suboptimal nutrient absorption is a much more frequent problem than is generally realized; its frequency increases with age... by far the most frequent cause of poor absorption is a lack of sufficient stomach acid production.

Note: In other places in this book, I talk about our bodies not being alkaline enough. Our digestive system should be acidic while our bodies need to maintain their alkalinity.

MINERAL DEFICIENCIES

In my experience, it seems that tongue fissures are more closely related to mineral deficiencies than vitamin deficiencies. This may be because as we get older our stomachs produce less acid and as Dr. Wright said, we are less able to absorb the minerals, even if we take mineral supplements! We need more acid to dissolve them.

OTHER SIGNS OF MALABSORPTION

Indentations of teeth along the edges of your tongue are sometimes considered signs of malabsorption. Therefore, although you may be eating healthily, your body is not able to fully utilize those nutrients. Indentations can also be the result of Iodine deficiency or a weak thyroid.

SIDE EFFECTS OF FISSURED TONGUE

One of the unusual side effects of a fissured tongue is that the cracks tend to collect debris and Candida. It is therefore suggested that people with deep tongue fissures brush their tongue to keep it clean. You might also consider brushing with an oxygenating toothpaste like “[TheraBreath Toothpaste](#)” or with Hydrogen Peroxide diluted 50/50 with water.

Note: Candida is often called “Yeast infection,” or when in the mouth “Thrush.” It is a very common but difficult problem and is covered in depth in the chapter on [Candida](#).

Sometimes, if the fissures are deep enough, eating acidic or spicy foods, like vinegar or salt, can cause a burning sensation, but this is fairly rare. In addition, if the fissures are deep, they may collect colonies of bacteria or debris from food, leading to bad breath or fungal infections of the tongue.

Doctors and dentists consider a fissured tongue a “chronic, lifelong condition.” In other words, they don’t know how to prevent or cure it! However, there are things we can do.

Doctors say, “There is no treatment for a fissured tongue. If you are experiencing burning or infection, you should avoid the foods that bother you, and make sure you follow good tongue hygiene, including cleaning your tongue daily with a tongue scraper.”

OK, keep it clean... that makes sense... but what else can we do?

TRADITIONAL CHINESE MEDICINE

Traditional Chinese Medicine (TCM) uses the tongue’s appearance in order to make a diagnosis of the entire body’s health. TCM Practitioners believe that the tongue is the beginning of the digestive system and a good indicator of things further along in the digestive system. According to Traditional Chinese Medicine, the tongue is the “health meter” for the entire body and is a good indicator of what is either lacking or in excess.

The Chinese have been using this for thousands of years with some amazing success. (Because of this strong relationship between TCM and the Tongue, I will be referring to TCM quite frequently throughout the book). Other areas we will look at in this book include vitamin deficiencies. A great many tongue problems are straight from the list of symptoms of certain vitamin deficiencies.

According to Traditional Chinese Medicine Practitioner Roger Wicke, PhD:

Tongue fissures correspond to various types of “Yin-Deficiency” problems. Systemic dehydration is often one sign. The tongue tissue fissures are analogous to a desert mud flat when it becomes dried out .

In other words, if you don’t drink enough pure clean water your tongue may show signs that your body is drying out by cracking. According to Traditional Chinese Medicine, other symptoms are anemia or “weak blood.” Anemia is mentioned in the chapters on [Geographic Tongue](#). Primary treatments are Iron and B-12. See also Feroglobin-B12.

OTHER INDICATORS

If dehydration is the problem, you can have dry stools that are difficult to pass. This makes sense if you think about it. One time I heard a story of an African king who was having difficulty every day with constipation. He offered a huge reward if anyone could discover the source of his problem because he was very uncomfortable. A doctor knowledgeable in natural health finally told him his problem was that he wasn’t drinking enough water. Once he began drinking eight glasses a day his constipation problems disappeared!

Sometimes the problem is also a lack of fiber to absorb the water. Since we are on the topic of water, I would like to mention that not drinking enough water is a common problem in developed and undeveloped countries. Undeveloped countries have an excuse. They have to haul the water from miles away and perhaps boil it before it is safe to drink. However, in developed countries we don’t have such excuses. The water is readily available, although I prefer to drink filtered water.

WATER: ACCEPT NO SUBSTITUTES

Most people think they are getting enough water because they drink soft drinks, coffee, tea, juice, etc. The truth is that none of these is an acceptable substitute for pure clean water! Coffee, tea and apple juice are all diuretics that actually cause the body to lose more water than it absorbs!

There are no acceptable substitutes for water. Notice that many of the “water alternatives” that we drink all the time are also loaded with sugar. Then we wonder why diabetes is running rampant in the developed countries. Water is necessary to metabolize the sugar and without it, we are really taxing our systems. Drink more water and eat more fiber and you will be amazed at the benefits!

One herbal formula is mentioned as a tonic if you have dry stool constipation. It is called “Wu Ren Tang.” “Wu Ren Tang” means “Five Seed Tea.” The herbs in this formula are all seeds. Seeds help in lubricating the intestines. One reason is that seeds contain oil. Obviously oil is a lubricant. Seeds are believed to have the ability to assist the body's creation of more blood and body fluids. It might be possible to get this “Five Seed Tea” in a Chinatown near you.

Or you might try [Yinherb Tea Extract](#) (K230): [Qi Bao Mei Xu Dan](#) Chinese herbal medicine **OR** [Bu Nao Pian - Cerebral Tonic Pills](#) (K34): [Bu Nao Wan](#) Chinese herbal medicine.

In addition to dehydration, we mentioned anemic blood. There are a many herbs that are considered helpful in the creation of body fluid. The category of herbs that are called “Yin tonics” work in the kidneys to slow the fluids escaping as urine (the opposite of a diuretic). This helps the kidneys reabsorb more water for those who are thirsty all the time or those who have one of many symptoms of dehydration including constipation, dry lips, dry mouth, constant thirst, hot flashes, night sweats, irritability, or hot palms and soles.

Other signs of fluid deficiency are insomnia, dry eyes, hair loss, brittle nails, dry skin in addition to the fatigue and dizziness that Western doctors consider anemia.

If either of these scenarios sounds familiar, you'd probably benefit from either an herbal formula for increasing your body fluid or your blood. In the meantime, a little [flaxseed oil](#) in your diet might help to move things out that are slow to make their exits.

Interestingly, “Yin deficiency” is also associated with “a busy, Yin-depleting lifestyle.” To nourish Yin, TCM practitioners recommend that you spend “an adequate amount of restful and rejuvenating time at home.” In other words, stress, emotional problems including worry and anxiety, dry you out. (See chapter on [Geographic Tongue](#) for more information on the relationship between stress and tongue problems and for realistic suggestions on reducing stress).

Obvious indicators of dehydration are dry mouth and a tickly throat. This can be caused by a long illness that depletes the fluids of the lungs, such as a cold or flu treated with antibiotics, or antihistamines, which have an extreme drying effect.

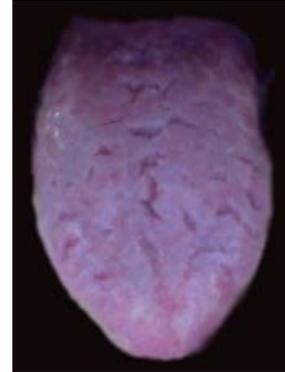
Many TCM practitioners believe that “the most common cause is eating late at night. If it becomes chronic the tongue may develop numerous cracks as the body tissues begin to dry up.” They also believe that “body fluids lubricate all of our organs and supply cooling energy to our bodies.”

This is an entirely different way of thinking about things than in the west. We believe that when people don't get enough fluids they suffer from a variety of dehydration symptoms. However, Chinese thought also adds that we will feel hot inside and this heat can cause dehydration.

Other symptoms are retaining sodium and expelling potassium—in addition to irritability, thirst and constipation.

DIABETES AND TONGUE FISSURES

In Diabetes, the concentration of sugar in the blood begins to increase. When the level reaches 180 mg/dL, the sugar begins to spill over into the urine. This causes the person to make more urine and then to get thirstier, and if they drink sweetened drinks it creates an accelerating cycle. This increased thirst is not helping to rehydrate the body but simply produces more urine, helping to flush the excess sugar from the body. In other words, diabetics could have difficulty drinking enough to remain hydrated and if they don't drink water but drink anything sweet they create a never ending cycle. This dehydration could result in the tongue cracking. Therefore, tongue fissures could possibly be an early indicator of diabetes.



OTHER SIGNS OF DEHYDRATION

Thick, dry, sticky saliva is another sign that you are not getting enough water. A good way to “cut” the thickness is to add a few drops of lemon juice or apple cider vinegar to the water. The acidity does a great job of cutting the saliva and eliminating the stickiness. It also provides natural vitamins and micronutrients.

Note: **Micronutrients** are substances that are needed by the body in very small amounts because they cannot be synthesized (created) in the body

MEDICINE SIDE EFFECTS

Another major cause of dry-mouth is the side effect of medicines. If you have severe dry mouth look at the medicines you are taking. You can get a side effect sheet from your pharmacist or find it online. You'd be surprised at how many medicines have dry mouth as one of their side effects.

VITAMIN AND MINERAL DEFICIENCIES

As you will see in the chapter on [Vitamins and related tongue problems](#), many vitamin deficiency symptoms correlate exactly with tongue problems and Fissured Tongue is no exception. Most experts agree that both a Vitamin B₁ deficiency and a Pantothenic Acid deficiency will result in tongue cracks. So if you have tongue cracks you might want to be sure that you are absorbing adequate amounts of these vitamins. (Remember taking vitamins and absorbing them are often two different things!)

Mineral deficiencies might also have an effect. Both Copper and Zinc deficiencies are known to cause skin lesions (cracks). Zinc deficiency is known to cause malabsorption and Copper deficiency causes a sore tongue so in my opinion that makes them good possibilities to consider. Other likely minerals are potassium, iron and iodine.

THE UNDERLYING CAUSE OF ALL HEALTH PROBLEMS

Some people believe that the one major underlying cause of all health problems is improper elimination of toxins, pollutants and foreign substances from the body. The 20th century has increased the level of chemicals, additives, pollutants, solvents, dyes and unnatural substances in our bodies, food supply, medicines, dental ware, clothing and cleaning products. It is our body's job to eliminate them. Often it becomes overwhelmed.

Without two to three healthy bowel movements a day, the body becomes poisoned with rotting, decaying, fermented, parasite-infested fecal matter. It is possible for someone to lose between ten and thirty-five pounds upon elimination of all the impacted wastes in their bowels!

It has been said that with proper cleansing, appetite diminishes and obesity ends! When the digestive/elimination system works properly, nutrients nourish the body and it feels satisfied. Cravings for junk food disappear and you are actually repulsed by processed, chemical, supermarket food.

If your intestines are impacted with trash, mucus and hardened decaying matter, of course you won't be able to absorb the proper nutrients. Good nutrition is the result of eating good healthy food not preservative-laden sludge. Did you know that preservatives actually prevent digestion? Think about it for a second, what is digestion but the breaking down of food into its basic components so that it can be absorbed by the body. What do preservatives prevent? The breaking down of food into its components, so that it will stay nice and "fresh looking" while on the shelf.

OTHER WAYS TO ELIMINATE TOXINS

There are a wide variety of [heavy metal detox products](#) from colonics (colon cleansing), toxin reducing patches that you apply to your feet, detox diets, sweat sauna, clay baths, massage therapy, fasting and exercise. Your liver and kidneys work together to eliminate toxins from your body. If your liver and kidneys are overwhelmed, other organs kick in to try to eliminate the toxins and reduce the overload so the liver and kidneys can be caught up. Some ways the body uses to eliminate toxins are through the skin via rashes and pimples. Also through mucous, i.e., a runny nose, through sweating and dark smelly urine, also through the lungs resulting in bad breath. For more information see:

<http://www.abundanthealth.ws/htryboct.htm>

OXYGEN

Some experts believe that much of all ill health is the result of insufficient oxygen. Oxygen is a key factor that we can't live without for more than a few minutes. What if we just got a "reduced dose" of oxygen? What if we got just enough so we wouldn't die, but not enough oxygen to keep us really healthy? Oxygen levels on earth have been steadily falling for thousands of years. Add carbon monoxide, which binds to our hemoglobin so it isn't available to transport the oxygen and you can see how we could easily become oxygen deficient.

Altitude sickness is primarily an oxygen deficiency and having suffered it, I can tell you it is no fun! The basic symptoms are a severe headache and extreme tiredness. When I had it, I had a splitting headache, took two Tylenol and lay down, passed out and slept extremely deeply for seven hours straight. When I woke up, it was midnight and I felt like I had stayed up until midnight, so I went straight to bed and slept another seven hours!

Exhaustion, chronic fatigue, etc.—is it possible they are related to a lack of oxygen?

For a more in depth discussion of the effects of oxygen depletion and some solutions see [Flood Your Body with Oxygen](#) by Ed McCabe

THE “FRANKENLOUPE”

Have you seen the new genetically engineered fruit on the store shelves? You might not even know that is what it is, but I recently bought a beautiful looking cantaloupe, took it home, put it in the refrigerator and promptly forgot about it. I went away for a few weeks. When I returned, I looked in the fruit drawer and saw this month-old, beautiful-looking cantaloupe. I couldn't believe how beautiful it still looked. I cut it open and inside was the nastiest looking fruit you have ever seen! It was engineered to look nice and not rot. It didn't rot but it certainly was no longer any good to eat. (Actually, I don't think it was any good for you to start with!)

PROPER ELIMINATION OF NATURAL FOOD

Most of the nutrients in our body are absorbed through our intestinal walls. If the bowels aren't working properly, the body works to push everything out in an attempt to start over fresh. Unfortunately, the walls of the intestine may be covered with a residue sort of like glue. This glue results in a toxic residue that eventually gets into the bloodstream and slowly poisons us. These poisons result in many of the health problems associated with modern life.

According to David Darbro, MD *“A clean colon is necessary for the health of the whole human. When the colon is plugged up, the rest of the body, including the brain, cannot function well.”*

It's important that we eat natural food with plenty of fiber both soluble and insoluble and that our elimination system is clean and healthy.

SUMMARY

Doctors consider Tongue Fissures untreatable since they do not know the cause. You do not need to know the cause in order to try to solve your problem. Depending on your personal situation, there are several possible areas to look at that could yield results for you.

Look for the following:

1. **Mercury poisoning:** Did your problem start after getting a root canal or a new filling or other dental work? Perhaps mercury poisoning is your problem.
2. **Other Heavy Metals:** Do you have bad breath? Sweat a lot? Dark urine? Runny Nose?
3. **Protein malnutrition:** Are you a vegetarian? Do you have difficulty digesting meat? Do you have gas, bloating or other digestive disturbances? Perhaps you should look into protein malnutrition.
4. **Dehydration:** Do you drink enough water? Is your body drying out? Look for ways to rehydrate you system.
5. **Diabetes:** If you are always thirsty and have tongue cracks you might want to have your Doctor test for Diabetes.
6. **Vitamins:** Do you have an absorption problem with Vitamin B1 or Pantothenic Acid?
7. **Colon:** Is your colon impacted with putrid wastes? Do you have two to three healthy eliminations a day? Do you avoid healthy natural foods? You should look into cleansing your colon.
8. **Oxygen:** Are you getting enough to keep you healthy or just enough to keep you from dying?

There is an excellent article entitled:

HOW TO REMOVE MERCURY AND OTHER HEAVY METALS FROM YOUR BODY – SAFELY AND INEXPENSIVELY

Some of the key points are:

Glutathione (GSH): A glutathione deficiency can result in an inability to effectively excrete mercury, aluminum, and pesticides from the body. In addition, GSH is an antioxidant, immune booster and detoxifier. [Glutathione \(GSH\)](#)

Herbs for eliminating metals: Several herbs are useful in the elimination of heavy metals including cilantro, garlic, turmeric and chlorella.

Liver Health: When detoxifying make sure your liver is also cleansed and protected. Helpful herbs are Milk Thistle, taheebo (pau d'arco), barberry, dandelion root, chaparral, and red clover. [Liver Detox](#)

Oral and IV Chelation using EDTA, DMSA and DMPS: This is the fastest way to remove mercury and lead from the body but many people have found these treatments harsh on their bodies, having a tendency to also chelate beneficial minerals. [Oral Chelation](#)

Clay baths: can pull mercury, aluminum, radiation and other environmental pollutants from your body but may also remove beneficial minerals. [Clay Detox Bath](#)

Ionic Foot baths and Foot pads: The foot pad/bath method works on the same principle of pulling out metals/toxins through the feet; including mercury, isopropyl alcohol, benzene, nickel, asbestos, dimethylaminoazobenzene and PCBs. [Ionic Foot Baths](#) [Foot Detox Pads](#)

Read the full article at: <http://www.proliberty.com/observer/20070907.htm>

CHAPTER 14

BLACK TONGUE AND BLACK HAIRY TONGUE



Black Tongue is an interesting but nasty looking problem.

IN A PATIENT'S OWN WORDS:

On three occasions over the last two months or so, I've awakened to find a coal-black colored coating on my tongue that covered the entire area and easily came off with a toothbrush. The coating extended down my throat and turned the bristles on the toothbrush black.

I am 39 years old, in good health and do not know of any stomach disorders. I do smoke under a pack a day.

I'd like to know if the black coating might indicate a health problem.

Paradoxically, as we can see from the pictures above, Black Tongue can also be brown or even bluish so we need to consider them all together.

CHARACTERISTICS

According to the National Organization for Rare Disorders, Inc., Black Tongue is also known as Black Hairy Tongue or in "doctoresse" "*lingua nigra*." It is characterized by a blackish or brownish discoloration or staining of the filiform papillae and may include an elongation of the papillae. Such changes often begin at the back (posterior) of the tongue and work their way forward, but never involve the undersurface.

These changes often result in the growth and discoloration of the papillae and may begin with the circumvallate papillae at the back of the tongue.

Hairy tongue is thought to be the result of inadequate "shedding" of the outermost layer of the papillae. The color may be the result of pigment-producing bacteria or fungi normally present in the mouth and an

abnormal accumulation of pigment residues, keratin and other debris on the tongue. Keratin is a type of protein that makes up skin, nails and hair.

Doctors are not positive what causes black hairy tongue but they know that several factors contribute to you getting it. The easiest way to turn your tongue black is to chew a “Pepto-Bismol” tablet. It will almost always turn your tongue black!

OTHER FACTORS

Obviously, that will not make the papillae longer, however. Other contributing factors noted by doctors are smoking, antibiotic medications that allow other fungi to proliferate, certain mouthwashes, chewing tobacco, excessive alcohol use and poor oral hygiene.

In the case study above, the patient noted that she smoked “under a pack a day.” Smoking has a high correlation with Black Tongue so I would think that this would be the first thing a doctor would tell this particular patient. Think about all the smokers you know with brown teeth! Is it also possible it will turn your tongue and lungs brown? The brown tongue above almost looks like a smoker’s teeth. The black tongue, however, may be more likely caused by Pepto Bismol, or perhaps some other medication. Activated charcoal and iron supplements could possibly cause a black tongue or licorice candy, as could simple things like eating blueberries! Check all your prescription medications and see if any of them list Black Tongue as a possible side effect.

Tongue color is one of the primary indicators for [Traditional Chinese Medicine](#). If rather than black or brown, your tongue is more deep red or other color mentioned in the Chinese medicine diagnostic, you might want to look into the other systemic issues.

Purplish or magenta tongue or lips, also veins under the tongue can be caused by a Vitamin B₂ deficiency so you might want to consider looking into that. (See chapter on [Vitamin Deficiency and Tongue Health](#).)

In some cases of Black Hairy Tongue like this one, Candida or Thrush is a possibility. Note the white layer around the edges and the black in the center. This is possibly a case where the thrush grew on the tongue and then collected the tar from the cigarettes turning it from white to black. In another chapter, we will discuss [Yeast and Candida](#) a problem that may affect up to 80% of people, but first we will discuss Hairy Leukoplakia.



BLACK HAIRY TONGUE

CHAPTER 15

HAIRY LEUKOPLAKIA



Hairy Leukoplakia is entirely different from Black Hairy Tongue or Hairy Tongue. In Hairy Tongue the filiform papillae elongate and look like hairs on the tongue. However, in Leukoplakia there are white, raised, vertical ridges on the sides of the tongue, although in some cases it can occur under the tongue or inside the cheeks. It is thought by some to be caused by the Epstein-Barr virus.

THE VIRUS CONNECTION

The Epstein-Barr virus, or EBV, is related to herpes and is one of the most common human viruses. It occurs worldwide and almost everyone becomes infected with EBV sometime during his or her lifetime. About 95% of all adults in the U.S. have been infected by the time they reach 40 years of age. When infection with EBV occurs during adolescence or young adulthood, it often causes infectious mononucleosis.

Once acquired, EBV lies dormant in some cells of the body's immune system. If the immune system is compromised, it can flare up. It will often subside if antiviral treatment is taken.

Oral Hairy Leukoplakia (OHL) is a white coating that looks much like oral candidiasis (thrush). However, thrush can be scraped off. The white ridges of oral hairy leukoplakia do not scrape off. Because it is primarily associated with a compromised immune system, Oral Hairy Leukoplakia frequently occurs in people who have HIV and indicates that they have moderate to severe immune system damage.

In addition to HIV, it has also been noted in people with other forms of immune deficiencies including those associated with chemotherapy, organ transplant, and leukemia. OHL has also been noted with Behçet syndrome and ulcerative colitis. Smoking more than a pack of cigarettes a day increases the chances of developing OHL in men who are HIV positive, perhaps because of the added strain on the system. The risk of developing Leukoplakia doubles with each 300-unit decrease in CD4 count.

Acyclovir® (Zovirax®) is a common antiviral treatment used for things like shingles and herpes. I have taken it for shingles and it works very quickly to kill the virus. A natural antiviral is available as a healing oil from AMOils [Heal Shingles](#), [Heal herpes virus and Cold Sores](#).

TERRAIN AGAIN

Once again the “terrain” or digestive system appears to play a significant role in developing Leukoplakia. Since it is rarely found in people with healthy immune systems, the key then is to regain a healthy immune system and Leukoplakia will resolve itself. If Leukoplakia is contributing to the decline of the

immune system, it might be helpful to use something like Zovirax® to reduce the virus and allow the system a chance to heal itself.

Many of the recommendations in the [Geographic Tongue](#) chapter would apply here also. Reduced stress, better oral hygiene and improved overall health should help to eliminate hairy leukoplakia.

NATURAL TREATMENTS

There is some evidence that proteolytic enzymes may be helpful in healing viral infections like shingles and therefore might be helpful for Leukoplakia. Proteolytic enzymes are naturally produced by the pancreas and aid in the digestion of proteins. Some foods also contain these enzymes. Besides their use in digestion, these enzymes may be beneficial to the body as a whole when taken orally. Some proteolytic enzymes include papain (from papaya), bromelain (from pineapple), and trypsin and chymotrypsin (extracted from the pancreas of animals). Papain and bromelain have been used for hundreds of years to aid digestion and as tenderizers for meat (look at the ingredients in meat tenderizer). I have found them to be very helpful when eating a large meal like steak. Simply chew a papaya tablet or two and digestion is much easier. Proteolytic enzymes are thought to help by decreasing the body's inflammatory response and regulating immune response to the virus. [Proteolytic Enzymes](#)

A double-blind study of 190 people with shingles (which is normally very painful) compared proteolytic enzymes to Zovirax®. Patients were treated for fourteen days and their pain levels were recorded at intervals. Amazingly, both groups had similar pain relief, but the enzyme-treated group had fewer side effects.

Of course Vitamin C has historically been said to strengthen the cell walls and make it more difficult for viruses to penetrate and multiply. So rather than taking papaya and bromelain, it is possible that eating natural papaya and pineapple might be even more helpful because of the additional vitamins they contain. Pineapple, however, is very abrasive, acidic and can be a problem for people with mouth irritations. [Papaya Enzyme](#), [Bromelain](#)

Once again, in the case of Leukoplakia, I think that trying to improve the overall “terrain” would be a good approach. In addition, treatments designed to work for herpes or shingles might be beneficial.

AMOil has an organic essential oil that they claim is highly effective against the herpes virus and Cold Sores and another for shingles in addition to treatments for yeast. I do not have any experience with these products but they might be interesting to investigate.

CHAPTER 16

CANDIDA



People with Candida overgrowth like that pictured above will find it hard to believe, but in its yeast form, Candida is actually beneficial. To remain beneficial, however, the Candida population must stay low. If it is allowed to get out of control, it actually mutates into an infectious fungus.

Most people are born with the beneficial form of Candida already in their bodies. It aids our digestion and assimilation of B vitamins. A healthy immune system combined with “friendly” bacteria like Lactobacillus help prevent this yeast from becoming a fungus. The “friendly” bacteria are constantly fighting with the yeast, in order to keep their numbers in balance.

Candida (yeast) of the mouth is often called "thrush" because of its white spots that look like the breast of the Thrush bird. It can be extremely harmful and causes infection (candidiasis) when the number of yeast cells increases too much and invades the moist skin inside body openings.

Yeast or Candida Albicans is a very adaptive organism. It has the strange ability to convert, or mutate itself, into a disruptive “mycelial” form. This can happen for several reasons. The main one is the overuse of antibiotics. When this happens, it forms root-like tentacles that imbed themselves into the lining of the digestive system including the mouth and tongue. If you try to scrape them off the tongue or mouth, it will leave a raw, red patch. After its roots penetrate the mucosa (or lining) of the intestinal wall, it allows toxins from the intestines to enter the blood stream. From there, the fungi easily gain access to other parts of the body.

Once Candida becomes systemic you may experience symptoms like constipation, headaches, diarrhea, bad breath, memory loss, mood swings, night sweats, PMS, vaginitis, and even acne, and depression. This is just the beginning of your problems.

According to Roger Williams, a famous research scientist, a single yeast cell placed in a perfect environment, with all the necessary nutrients and the right temperature, could grow to one-hundred yeast cells within a single day. At this rate of growth, one cell could grow to a yeast colony weighing one billion tons within a single week!

I am certainly glad this doesn't happen! Fortunately, the environment is never perfect, at least not for very long, but you can see how this can rapidly become a systemic problem which affects the entire body.

When our body's immune systems become weakened or our intestinal pH gets away from its optimum level, Candida changes from the yeast form to the fungal parasitic form. When this happens and the roots eat into the lining of the intestines, partially digested dietary proteins are allowed to travel into the bloodstream. Once the proteins are there, the body produces antibodies to fight them. This results in immune system problems.

Lately, Candida has become closely associated with AIDS in many people's minds. Don't worry—it is not related to AIDS. It is, however, both a cause and a side effect of a weakened immune system. Often AIDS patients end up with Candida problems because of their weakened immune systems and their increased antibiotics usage.

Unbelievably, it has been estimated that as many as 80% of the population in the U.S. may have Candidiasis that is out of control! How could 80% of the population possibly be infected? The answer is quite simply: sugar, cortisone and antibiotics!

SUGAR, CORTISONE AND ANTIBIOTICS!

The widespread usage of antibiotics not only in people but also in our chicken, beef, milk, pork, etc. has increased this problem. In addition to all the unseen antibiotics we ingest, we also love sugar and recent studies have shown that our per capita sugar consumption has increased dramatically over the last 20 years. Currently, sugar accounts for a whopping 16% of all calories consumed by adults in the U.S. and 20% of the calories consumed by teenagers!

Mix yeast "starter" and sugar while making bread and watch the bread rise! The "starter" is present in everyone. Just add sugar and the same thing happens in your digestive tract. With the rate at which yeast multiplies, and how much we all love sugar, it isn't hard to see how yeast can infect so many people. What makes it even worse is adding antibiotics and/or cortisone into the mix.

Imagine something that has the potential to multiply by 100 times every day but is kept in check because friendly bacteria eat it at the same ferocious rate! Unfortunately, antibiotics and cortisone kill off the good bacteria that keep the yeast in check and soon you have yeast multiplying out of control! It almost sounds like something from a bad science fiction movie.

In addition, we even help the yeast side of the battle by eating breads or even taking yeast as a supplement to increase our B vitamins. Yeast in its good form helps with getting us enough Vitamin B. But unfortunately in the U.S., we rarely supplement the other side by eating beneficial things like yogurt or acidophilus milk or taking "ProBiotic" supplements.

XYLITOL

The one exception to sugar uses is Xylitol, which is a fantastic sugar that actually fights yeast and tooth decay. Dr. Ward Dean states that Xylitol is not metabolized by humans OR yeast: "Yeast gobble it up, thinking they're getting sugar, and die." He considers it one of the best anti-candida strategies! Dr. Mary Cloud Ammons, a microbiologist from the Montana State University, is using xylitol along with lactoferrin, an immune-boosting natural infection-fighter that is present in mothers' milk directly on diabetic ulcerations and seeing miraculous results. [Xylitol](#) [Lactoferrin](#)

I believe that if all the drinks, gums, candies, etc., that are currently using the toxic sucralose, which is sapping our nation's health, switched to using xylitol, the health industry would probably be cut in half. Because of their power, I doubt it will ever happen, but you can choose to make these changes for yourself.

IS YEAST SERIOUS?

Yes and No! Yes, yeast can be a serious condition, but No, it isn't life threatening and consequently most doctors don't take it very seriously. Personally, I think it is one of the underlying causes for a great many other problems that do become serious. Problems like intestinal malfunctions such as Crohn's Disease and even colon cancer. In addition, many other illnesses have responded favorably to treatment for Candida including multiple sclerosis, lupus, myasthenia gravis, multiple chemical sensitivity syndrome, chronic fatigue, fibromyalgia, interstitial cystitis and cystitis, and endometriosis.

Remember, everyone is born with yeast bacteria in their digestive system and it is necessary in order to properly digest your food and assimilate B vitamins. However, as it goes "rogue" and starts transforming into a harmful parasite through the use of antibiotics and eating too much sugar, it starts a chain reaction that can end with very serious consequences. These consequences are things like improper digestion, inability to absorb vitamins, gas and bloating. Secondary reactions include fungus infections like athletes' foot, jock itch, ring worm, scaly red patches, vaginal yeast infections, bladder infections and of course nasty looking tongue problems like those pictured above. Once the intestinal walls are perforated, watch out!

DYING YEAST CAN MAKE YOU SICK AS A DOG!

The good news is doctors have at their disposal several medications that can kill off yeast so the balance can be regained. The bad news is dying yeast can make you sick as a dog! This is called "die-off" or a "Herxheimer reaction" and the dead yeast accumulates in your intestines and become fairly toxic to your system. Many people who have a heavy parasite infection have a nasty die-off reaction. This might lead you to believe the cure is worse than the disease!

When I went through it, I nearly gave up on the treatments because I felt so sick. I thought I was allergic to the medicine. Fortunately, after a few days I started feeling better just as the doctor said I would.

You might feel extremely tired, have minor skin eruptions or feel slightly queasy or even really sick to your stomach. Some people noticed cramping and other reactions to the yeast die-off. The worse your infection is, the worse you will feel when you start killing off the little buggers.

Because of their parasitic nature, the yeast actually makes you feel good when you feed them and bad when you try to kill them. They make you crave sugar to feed them and make you sick to your stomach when they die off. This leads many people to give up trying to kill them and feed the nasty little critters instead. Feeding them, of course, makes them grow faster and makes you sicker in the long run. You need to kill them! Fortunately, there are some ways that can help reduce the side-effects of die-off which I will cover later.

Increasing your Molybdenum intake can help reduce this problem.

MOLYBDENUM

As I mentioned in the chapter on [Geographic Tongue](#), Molybdenum can make a major difference in treating the symptoms related to candida. Since it is so important, it bears repeating here:

According to modernherbalist.com, "Molybdenum is a trace mineral... it can make a dramatic difference in the health of individuals coping with candida infection, multiple chemical sensitivities or certain types of food or chemically induced migraine headache, as well as the adverse effects of alcohol over consumption."

Your body uses Molybdenum to manufacture the enzymes, (aldehyde-dehydrogenase and aldehyde-oxidase) which allow the liver to eliminate a neurotoxin called acetaldehyde. Acetaldehyde is a waste product produced by yeast and fungal organisms. This waste accumulates in unhealthy intestinal environments, circulating blood, liver and other tissues and organs of individuals with candida albicans overgrowth and is a major reason yeast overgrowth saps your strength reduces your immunity and lowers your resistance to allergens like mold, etc. [Molybdenum](#)

The toxins produced by candida (yeast) like ethanol, acetaldehyde and formaldehyde can actually damage organs, cause emotional disturbances, memory loss and mood swings, and may act as an immunosuppressant. This may mean not only that you are rendered susceptible to re-infection by Candida itself, but also that autoantibodies may form, and hormonal dysfunctions may follow together with a medley of seemingly unrelated health problems. (Witkin, Ph.D. Cornell Univ. Med. College 1985)

TREATING THRUSH (ORAL CANDIDA OR YEAST)

If you are having difficulty shaking Thrush, I am not entirely surprised. It is a very difficult thing to shake once it gets hold of you. I recently have been fighting a case myself that sprang up after a round of antibiotics.

I strongly believe that you need to "re-seed" the good bacteria after they have been killed off but I'm not sure that they help as much as the "three-lac" people would have you believe.

WHAT DO DOCTORS SAY?

Doctors classify Candida with a bunch of "doctorese" based primarily on how it looks or where it is located.

The first is called *Acute Pseudo-Membranous Candidiasis*. In this form there are white patches on gums, tongue and inside the mouth that can be peeled off leaving a raw area.

The next type is called *Acute Atrophic Candidiasis*. Here, there are smooth red shiny patches on the tongue. The mouth is very sore. Acute means that it comes for a brief time and then goes away.

The third type is called *Chronic Atrophic Candidiasis*. This is common in those with dentures. The underlying mucosa is red and swollen. Chronic means that it is long lasting and doesn't go away easily.

Yeast on the lips is called Angular Cheilitis. There are sore red splits at each side of the mouth. This is more likely if there is overhang of the upper lip over the lower lip causing a moist deep furrow. Angular Cheilitis due to *Candida* and/or *Staphylococcus aureus* is common in those taking the medication *isotretinoin*.

Chronic Mucocutaneous Candidiasis is another chronic infection, but in this case, the skin and nails are also affected.

The final and most serious form is called *Chronic Hyperplastic Candidiasis*. This is a white patch inside the cheeks or on the tongue with nodules or lumps that don't go away. It usually affects smokers and is pre-cancerous. Red patches in addition to the white patches may indicate malignant change.

All of these forms are related and are simply described differently by doctors. All of that means very little. The key is that the problem is being caused by yeast gone wild. It needs to be killed off and your body needs to regain a healthy balance.

WHAT DO DOCTORS PRESCRIBE?

Doctors normally prescribe antifungal drugs, like Diflucan® (fluconazole), an oral antifungal agent taken in tablet form, and Nystatin®, which is used to treat a variety of fungus infections, but it is exceptionally popular to treat skin and mucosal membrane infections caused by varieties of *Candida Albicans*.

Nystatin is available as a powder that is usually prescribed in a liquid suspension. In other words, the powder is mixed with a liquid like water or juice and swallowed as a drink or swished around the mouth before swallowing.

Dr. William Crook, MD, author of the bestselling book *The Yeast Connection* prefers to prescribe Nystatin as a powder applied directly to the tongue. In this method, you try to hold a teaspoon of the powder on your tongue as long as possible and then you drink some water to rinse it down. The advantage is that it stays in your mouth longer and is in direct contact with the yeast on your tongue for a longer time.

This can result in a strong die-off reaction so he recommends that you start with as little as the amount of powder you can hold on a flat toothpick. I have tried both the liquid and the powder and although the liquid tastes better, it did almost no good, while the powder killed the yeast fairly quickly. The powder should be fresh and kept refrigerated for full potency. Getting it fresh and potent can be difficult. You might have a better chance of getting it fresh if you find a pharmacy that doesn't have any in stock and then have them order it directly from their supplier for you.

The following is the only thing I have found that works guaranteed every time. It is not quick but it is sure for me.

Here is the treatment I use to fight Yeast:

1. Avoid sugar and limit carbohydrates
2. **This is really nasty but it is the only sure way!** Take **Nystatin powder** (the liquid runs away too fast to be much help). Place it directly on the tongue and don't swallow as long as you can stand it. Don't drink afterward if possible (or possibly just a small sip).

Do this three or four times a day (probably after eating is better because it makes the food taste bad if you do it before). Just before bed is the most important time (and the only time I do it).

Just before going to bed, I brush my teeth and tongue with Hydrogen Peroxide and rinse with water. I drink a big glass of water and then do the Nystatin treatment. Then go to bed. That way in the morning, my tongue is still covered with Nystatin and it has had a chance to kill Yeast all night!

See the (*note) on the following page for the research I showed my doctor to get him to prescribe the Nystatin powder for long periods. You need to do this for three months minimum to ensure it is gone.

I have been doing it (before bed only) for two months and the Thrush looks like it is gone. If I eat much sugar or stop taking it, the Thrush comes back, so I know I have to keep it up a while longer.

After a month of Nystatin treatment you can start introducing the probiotics (before that I think you are probably just wasting your money because the yeast just kills them off).

Three-lac is one of the best tasting probiotics but it also has a lot of sugar and is expensive, so I'm not sure it is the best program. I have tried many different ones. They come in several different forms. There is a chewable tablet form available over the counter in most drug stores. Three-Lac is a powder that you pour on your tongue. You can also get other forms like capsules or tablets to swallow. [Probiotics](#)

Another way to boost the good bacteria is yogurt (make sure it has active cultures) and/or acidophilus milk. The main thing is to be sure the cultures are active with any of them, including Three-Lac. If they aren't stored properly, the cultures can die and you wonder why the treatment isn't working.

Note to Show Doctor:

The following is some information I found at the following web site <http://askwaltstollmd.com>. This is a great explanation about the use of Nystatin to cure Yeast problems especially thrush.

Question:

I believe that considering the lack of side effects from Nystatin---MUCH less than aspirin, for example, Nystatin should not BE on "prescription only." At least if it were available over the counter, the instructions would be plainly printed on the label.

I have found that it takes 750,000 units 4 times a day, at least one hour before or 2 hours after eating or drinking anything except water, to resolve Candida most efficiently. That dose can be taken as just the dry powder (which is hard to measure because it packs in the spoon & the potency on the package is based on fluffed material) or previously mixed in water (considering that once hydrated it loses its potency faster and doesn't remain in the mouth as well).

My bottle of (powdered) Nystatin came with approximate equivalents printed on the bottle, and its own measuring spoon. It has a 1/8 measure on one side for 500,000 units and 1/4 on the other for a larger dose so I use a slightly heaping 1/8 measure and figure it's about 750,000 IU

I was given a prescription for Nystatin USP (NYSTAT), which is a powder. It says 150 Million Units on the bottle. I really want the Paddock Brand powder in the 150 mil IU's. Paddock is to my understanding the only company that is sugar free (why the others wouldn't be makes little sense). *[Paddock tastes worse but may work better, but they all taste bad- Tim]*

I have found a doctor who is willing to work with me. To his credit, he immediately honored my request for a new prescription for Nystatin powder, 750,000 units, 4x a day. He wrote the prescription for 10 days. From everything I've read, that's not anywhere close to being long enough. I'm not clear though on what IS long enough and how I will know when I can stop taking it. It seems to me that if Nystatin is successful, treatment typically lasts anywhere from 3 months to a year. I'm thinking of asking him to support my taking it for 6 months, but this is kind of an arbitrary number I chose. I appreciate all guidance that I can get on this.

Thanks,

Pam

Note: Nystatin should be kept refrigerated and be fresh when you buy it. Be sure your pharmacy has not given you an old bottle they had laying around.

Doctor's Answer:

Pam,

This is one reason why I strongly suggest the Candida Immune complexes test from Antibody Assay Labs.

There are VERY few Doctors that will go on prescribing anything ad infinitum (especially today when insurance companies are so closely monitoring what they prescribe and for how long -- BIG BROTHER IS WATCHING). Like you, they (your doc and your insurance company) will want to know if you have a real problem in the first place and second how (beyond how you feel) will you be sure that you've taken a long enough course?

The test I just mentioned touts a 95% correlation with symptoms -- in other words as the immune complexes drop, your symptoms drop. Once you get into the 'normal' range, it might be an opportunity to taper or stop taking the Nystatin.

The MINIMUM duration of treatment is 3 months and can last until you get well.

From what I've seen the blood work values tend to lag behind symptoms. In other words, you usually feel better BEFORE the immune complexes start to drop. Unfortunately, the converse is also true -- the immune complexes can start to rise (if you are relapsing) and you won't detect it until the candidiasis is already raging again.

Get the blood test -- it's a good road map and infinitely better than what we had one a year ago.

Dr. Bob

Answer:

Hi, Pam.

I agree with most of what Bob has to say. I hope both of you will take heed of the notes about the accuracy of Candida questionnaires as compared with ANY monitoring "test."

Three months of Nystatin is about what my experience says, too. Especially if the person is dealing with the LGS at the same time. Nystatin is not a perfect solution either but, in MY experience, it is the safest, least expensive thing to try first.

So far as the money is concerned, until the monopoly gets shattered, people may have to pay for what works rather than limiting themselves to what doesn't work just because "their insurance pays for it." If you are doing the right stuff, you will not have to do it long before you don't need ANY treatment at all.

Dr. Walt

SIDE EFFECTS OF CANDIDA INFECTION

Candida infection is systemic, meaning that when you see it in one place it can easily pop up as another problem somewhere else. If you are a man with Thrush you might also have Athlete's Foot, Ring Worm or Jock Itch. If you are a woman, you might have a vaginal Yeast infection, toe fungus, etc. Some natural oils have been used successfully to treat these maladies, but it is necessary to get the entire system back into a healthy state in order for the problem to stay gone. However, that is not to say that you shouldn't fight the local outbreak site in addition to trying to regain a healthy terrain. Some possible healing oils are [Candida](#), [Athlete's Foot](#).

YEAST AND DIAPER RASH

We have spoken about some of the many problems caused by Yeast but did you know that Yeast is by far the most common type of organism found in a diaper rash?

The organism is quite prevalent and thrives in warm, moist skin. Yeast involvement should be suspected in any diaper rash that has not improved dramatically with 72 hours of appropriate therapy. Current or recent antibiotic use makes a yeast infection even more likely, since this reduces the amount of the skin's "good" bacteria that fight infection. Classically, a yeast rash is beefy red with sharp raised borders and white scales. Small satellite lesions surround the main rash. Even without the classic pattern, yeast is often present.

FIBROMYALGIA AND YEAST

Yeast (Candida) is common in people with fibromyalgia and should be looked at as a contributing factor.

In addition to eliminating yeast, anyone suffering from Fibromyalgia should consider a Malic Acid deficiency. Many people have found “Malic Acid” to be helpful in dealing with fibromyalgia. Dosage: 600 - 1200Mg a day combined with 150-300 mg Magnesium per day. [Malic Acid](#)

The following is the doctor-ese version: In a double-blind, placebo-controlled crossover study, subjects with primary fibromyalgia syndrome were randomized to receive a combination of 200 milligrams of malic acid and 50 milligrams of magnesium per tablet (three tablets twice a day) or placebo for four weeks. This was followed by a six-month, open-label trial with dose escalating up to six tablets twice a day. Outcome variables were measures of pain and tenderness, as well as functional and psychological measures.

No clear benefit was observed for the malic acid/magnesium combination in the lower-dose blinded trial. However, in the open-label trial, [at higher doses, there were significant reductions](#) in the severity of all three primary pain/tenderness measures.

[Malic Acid listed in Amazon](#)

WHAT ARE TYPICAL “HOME REMEDIES” AND DO THEY WORK?

Home remedies abound and meet with varying degrees of success. Here are some of the ones I have found.

1. **Diet modification** - try to starve the little buggers to death. A typical diet might look like this: no sugar, or even sugar substitutes like NutraSweet or Equal[®]. Only one cup of starch a day, no fruit, molasses, corn syrup, honey, milk, or anything that ends in “ol” or “ose” (like malitol and fructose), maltidextrin, (very low carbs of all types). One exception might be whole grains. This is a slow and difficult process but it might prove effective if combined with other methods of killing the Candida. Note: Some recent research indicates that [Xylitol](#) might kill yeast and therefore would be an excellent natural sugar substitute that is actually good for you.
2. Believe it or not, one home remedy is to **eat whole grain bread!** Although it might have some abrasive action that might help clean very mild white patches off the tongue, I would think the sugar and yeast in the bread would counteract any benefits you might get. (Not recommended.)
3. Another home remedy I have heard of is to hold a **tea-bag on your tongue**. The tannic acid might have some mild effect and the tea might discolor the yeast so it doesn’t look so bad but I don’t know how helpful this one would be either.
4. **Eat Yogurt** - This has some merit. You definitely need to supplement the good bacteria. Lactobacillus Acidophilus is one of the many beneficial bacteria and it is used to make yogurt. Unfortunately, it is very difficult to determine whether the Acidophilus is still alive when the yogurt reaches you even if the label says “made with live yogurt cultures” or “live yogurt cultures.” Generally, the premixed yogurt has very little live bacteria left by the time it gets to you. Some yogurt is even pasteurized to kill the live yogurt cultures. The “fruit on the bottom” or plain yogurt tends to have more live bacteria. You might try making homemade yogurt that is higher in active yogurt cultures and therefore better for you. [Food Dehydrator and Yogurt Maker](#), [The Book Of Yogurt](#), [Yogurt and Cheese: Make Your Own \(VHS\)](#)

5. **Drink Acidophilus Milk** - Like the yogurt, you never know how alive the bacteria are, but I think acidophilus milk tends to have quite a bit of good bacteria left alive in it. Interestingly, even many people who are “lactose intolerant” can drink acidophilus milk because the lactose is already broken down by the bacteria. Even better, after reintroducing the good bacteria to their systems, after a while many are no longer intolerant. (Is it possible that the intolerance is actually due to a lack of the bacteria necessary to break down the lactose?)
6. Another excellent method for reintroducing the good bacteria into your system is taking it in a pill, capsule or powder form. This is generically called “**probiotics.**” The opposite of “antibiotics” this works wonders. In mild cases, this may be all that is necessary. In more severe cases, this should definitely be a component part of the treatment combined with some method of killing the yeast fungus. Many drug stores carry these products. Some are [Primal Defense 90 Caps](#), [Primal Defense, 180 caplets](#) these carry several strains of yeast fighters. You can also get just acidophilus tablets in chewable form. [Nature's Bounty Chewable Acidophilus with bifidus, Natural Strawberry Flavor 100 ea](#)
7. Some people have tried brushing and gargling with hydrogen peroxide. You take a small amount into your mouth, swish it around and then slip the toothbrush in and brush your teeth, spit and brush your tongue. Because hydrogen peroxide is simply water (H₂O) with an extra Oxygen molecule (H₂O₂), it introduces oxygen into your mouth and seems to kill the yeast in the mouth. Of course, it does nothing for the yeast in the rest of your system but it could be a helpful additional measure. Do not swallow it, because it contains chemical binders that hold the extra Oxygen in the liquid. Also swallowing it may be too much of a good thing and actually cause yeast to die off in your system, making you feel sick. A nice side benefit is that it is supposed to help kill the bacteria that cause gum disease.
8. Natural Herbs- Oregano is said to kill yeast but not the cooking kind! Wild Oregano (Origanum Vulgare) is also said to have a great many other medicinal properties. It is available in oil or capsule form in products like Oregamax. [Oregamax, 90 capsules](#), [Oregano Oil-60Caps](#) Another natural anti-Candida herb is olive leaf which is said to be quite effective against bacteria, viruses and yeasts. It has been used as a cure for thousands of years—it contains a phenolic compound known as Oleuropein, which comes from the leaves of olive trees. It strengthens the body's immune system, and much more. [Olive Leaf Extract book](#), [Olivenol Liquid 2 oz.](#), [Olive Leaf d-Lenolate Caps 90](#)
9. Cinnamon- One German study showed cinnamon effective in reducing the fungus responsible for vaginal yeast infections. See [Cinnamon](#)
10. Natural Oils are often effective against Candida. A company called AMOils produces a healing oil that is used against Candida.
11. Grapefruit Seed Extract is another in this type of product. One user said, “my oral thrush is gone after only one week of use with grapefruit seed extract.” [The Authoritative Guide to Grapefruit Seed Extract](#), [Nutribiotic - GSE Liquid Concentrate, 4 fl oz](#), [Olive Leaf & Grapefruit Seed, 30 capsules](#), [Solaray - Grapefruit Seed Extract, 125 mg, 60 capsules](#)

12. Caproyl oil is a natural product made from coconut oil and olive oil that has proven effective in killing yeast. Unfortunately, it is also easily digested. So rather than passing through the digestive system it got absorbed much too quickly to come in contact with the yeast. After much testing researchers found a way to keep it from being digested and found that it was a nice gentle way of killing off the yeast. This same process also has the benefit of minimizing the “die off” reaction. Remember that earlier I said that Yeast “die-off” can make you feel very sick, (almost like sea-sickness without the sea), I also promised to tell you how to minimize that reaction.

Interestingly, the answer is a simple natural product that is amazingly lacking in the modern diet. In a word, it is fiber. I am convinced that we would all be much healthier if we just increased our fiber intake. Fiber helps to provide bulk, which helps the waste move faster through our systems trapping toxins and carrying them out. When transit time slows, toxins have more opportunity to gain a foothold in our digestive system.

What does all this have to do with Caproyl? Well, it seems that when Caproyl is mixed with fiber it isn't digested but passes through the system and in the process kills the yeast as it passes by. In addition, the fiber is abrasive enough to gently scrape the yeast of the intestine walls and carry it out before the dying yeast can make you sick. Here's the recipe:

- 8 oz. of purified water
- ½ teaspoon (tsp.) – 1 Tablespoon (Tbsp.) of Caproyl
- 1 heaping tsp. of Psyllium (not just the husk but the whole seed ground up) for fiber and abrasiveness
- 1-2 Tbsp. of Bentonite which is actually a clay product that helps in trapping toxins

Shake it all up in a jar and drink it down, followed by plenty of water. It is pretty tasteless but kind of like trying to drink really thin cream of wheat. It is a lot less obnoxious than Nystatin® and all natural with the added benefit of increased fiber. All-in-all not a bad treatment plan. I have used it myself. [Caproyl](#)

This treatment should be combined with additional beneficial bacteria supplementation, like [Primal Defense](#) or [Probiotics](#)

WHAT SHOULD I EAT?

As mentioned above, what you eat will feed either the good guys or the bad guys! Make sure what you eat is feeding the right ones! Eat more acidophilus in any and all forms, like Acidophilus milk, yogurt, and supplements. Increase your fiber intake and eat more natural foods, like eating brown rice rather than white rice and whole grain cereals with acidophilus milk.

WHAT SHOULD I AVOID?

Eliminate the yeast, cheese, and sugar products, along with preservatives, chemicals and yes, alcohol. You might think that alcohol would “kill germs and fight bad breath” but actually it only kills certain germs (very few) and yeast isn't one of them. Actually, yeast is what produces alcohol. Remember wine, beer, etc. are fermented. They are created by taking a form of sugar (from grain or fruit) and adding yeast and letting the yeast make alcohol.

Actually, alcohol is a waste product of yeast, so yeast is used to having it around. Yeast is resistant to its effects, but if there is enough alcohol, it will eventually die in its own waste. Unfortunately, you would die first, and have to pickle yourself in order to get enough alcohol to hurt the yeast.

OTHER RESOURCES FOR DEALING WITH CANDIDA

You also might want to check out the following books:

COOKBOOKS:

[The Candida Control Cookbook: What You Should Know and What You Should Eat to Manage Yeast Infections](#) by Gail Burton, Michael E., MD Rosenbaum - 4 stars

[Erica White's Beat Candida Cookbook: Over 300 Recipes With a 4-Point Plan for Attacking Candidiasis](#)

[Candida Albican Yeast-Free Cookbook, The : How Good Nutrition Can Help Fight the Epidemic of Yeast-Related Diseases](#) by Pat Connolly

[Coping With Candida Cookbook](#) by Sally Rockwell

FOR MORE INFORMATION:

The classic expert on Yeast is Dr. Crook: [The Yeast Connection: A Medical Breakthrough](#) by William G. Crook (Author)

[How to Stop Candida & Other Yeast Conditions in Their Tracks](#) by Valerie Saxion

[Complete Candida Yeast Guidebook, Revised 2nd Edition : Everything You Need to Know About Prevention, Treatment & Diet](#) by Jeanne Marie Martin, M.D. Zoltan P. Rona

[Candida Albicans: Could Yeast Be Your Problem?](#) by Leon Chaitow

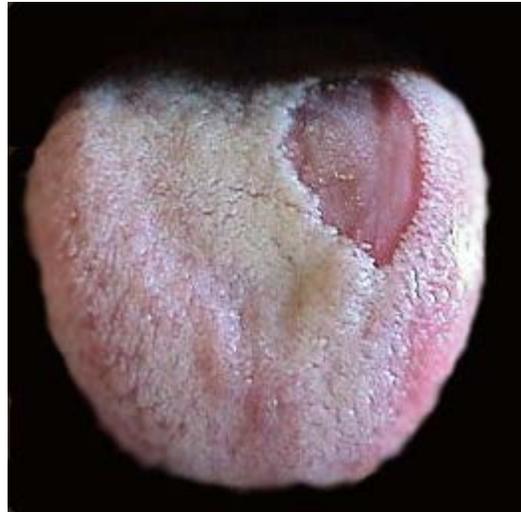
PRODUCTS:

[Primal Defense 90 Caps](#)

[AZO Yeast, Natural Symptom Prevention & Relief, 400mg, Tablets - 60 ea](#)

[Oregamax, 90 capsules](#)

[Candistroy Kit 60+60](#)



A BAD CASE OF THRUSH TONGUE

HERE IS A GREAT VIDEO

In [this video](#), Ryan Shea explains all the problems he had because of Systemic Candida. It is amazing what all it can cause. His case is very similar to mine and he had some amazing success in treating it naturally.

WILL I EVER BE TOTALLY FREE OF IT?

No one is ever totally free of yeast but it can be kept in check for years at a time. The key is to eat healthy natural foods and replenish the good bacteria if they get killed off by antibiotics etc. Some people take regular doses of [Oregamax](#) or a [Probiotic](#).

HOW DOES YEAST RELATE TO OTHER TONGUE PROBLEMS?

A white tongue is not always a yeast indicator. Although oral thrush has creamy-looking white patches on the tongue and mucous membranes of the mouth, a coated tongue, on the other hand, is also white looking but not patchy and not on mucous membranes (cheeks, etc.) This can be an indication of the body trying to detox; some say it indicates problems with liver function. Possibly, it is the result of a digestive problem, or drug use.

Hairy Leukoplakia is also white-looking. The only way to tell for sure is to have your doctor or dentist do tests. Often dentists have studied Thrush more extensively than doctors, since they spend much more time working with mouth disorders.

CHAPTER 17

BURNING TONGUE AND BURNING MOUTH SYNDROME

Burning Tongue Syndrome and Burning Mouth Syndrome are basically synonymous so in this chapter I will primarily use the more generic term Burning Mouth Syndrome but the terms can be used interchangeably.

“Burning Mouth Syndrome (BMS) is characterized by the sudden onset of pain and burning of the mucosa, lips and or tongue, in the absence of visible mucosal lesions.” In other words it starts quickly, affects all the mucus membranes of the mouth (not just the tongue), and doesn't need cracks or other visible injury in order to happen!

This is not good! What could be worse than an invisible source of pain that affects more than one million Americans? Both males and females are affected and for some strange reason it is more common in the Western U.S. than the East. As you get older, it also becomes more likely. In addition, many more women than men are affected. Although one wise guy said that is only because men complain to their wives and women complain to their doctors!

ALL IN YOUR HEAD?

The following is an excerpt from a statement made by someone with BMS who was so frustrated and depressed that she went to a psychiatrist to treat her BMS.

Sometimes I think can't take it much more and I almost wish I had something like cancer, because there is sometimes a cure for it! I can't imagine living like this until I'm in my seventies. Sometimes I think if I didn't have my kids...I'd take an overdose of something because it is really depressing.

There is not a day that I don't have this pain....sometimes the pain is so excruciating that I just go to bed at eight o' clock just to be out of pain. I mean, that is no way to live, It's absolutely no way to live. Nobody seems to be able to help. The doctors think because it is not life threatening, they just sweep it under the carpet; they don't realize how life threatening it really is, because you can actually attempt suicide with this...

Of course, the psychiatrist set out to treat her depression by prescribing various antidepressant drugs! Instead of trying to find the cause of the problem, he is willing to treat the symptoms. Obviously if you are in constant pain, you are going to be depressed! Duh! As I have said before, pain is one of many stresses that just add to the negative forces working on your body.

Your body is a system that needs to be in balance. It needs certain nutrients and sources of energy in order to combat the negative forces of stress. There are all types of stress, physical, mental, emotional and spiritual.

HERE IS WHAT CAROLE TOLD ME:

Hi Tim,

Off and on for several years, I have suffered from burning mouth.

I attribute it to the stresses of my life. Last December, just before Christmas, my mouth started burning, my tongue was a coated mess, I got painful white patches all over the inside of my mouth and the roof of my mouth became a painful washboard. My gums were sore and swollen in spots, which would move around, but did not bleed as with gingivitis. I figured herpes or candida was to blame so I took acyclovir and oil of oreganol.

[Two months Later...]

February came and I was still in pain so I went to the doctor who assured me it wasn't candida or herpes. He said it was the coxsackie virus and there was nothing I could do but wait for it to go away in about two weeks... imagine that (after I had been suffering since Dec.!)

He gave me the lidocaine mixture and said to wait. Meanwhile I continued research on the web. I did have a bout of cold sores too. There was no relief and my tongue started to get worse. It became so sore. First, it was just on one side, then spread to the tip. The inside of my lips felt full of little blisters. I finally found your website and just a week ago downloaded your e-book. I bought everything you mentioned and immediately started the treatment on the 12th of March. Within 3 days, my mouth stopped burning and the coating on my tongue started to go away. Today, March 18th, my tongue is not sore, my mouth doesn't burn and the little blisters in my lips are gone. I don't know which vitamins or minerals I was lacking, but I am a true believer now and will continue taking this cocktail for the rest of my life.

Thank you for your e-book, it was worth every penny.

Sincerely,

Carole Christensen

So in Carol's case... BMS was caused by a vitamin deficiency!

OTHER CAUSES

Burning Tongue or Mouth can have a variety of causes including everything from Candida to a Galvanic response to your fillings. This is what makes it so hard to pin down. There are also a variety of nutritional deficiencies that can cause mouth pain, burning tongue or mouth and numerous other tongue problems.

Tongue pain can also be related to Tongue Fissures. Obviously a tongue with deep cracks or lesions can cause pain if spicy or acidic food gets in the cracks or the cracks are deep enough to hit tender flesh.

CANDIDA

In a recent study done by the Department of Oral Surgery, Osaka Medical College, Osaka, Japan, they divided the participants into three groups: those with manageable pain, those with high pain and those with mixed pain. They found that of those with manageable pain, 73.0% tested positive for Candida when they did a culture even though only 59.5% appeared to have Candida by direct examination of the doctor. In other words, 13.5% of the time even though the Candida was there the doctor couldn't see it! But when they did the culture they found it and in this group when they were treated for Candida their pain subsided. So looking at Candida as a possible cause of BMS is definitely warranted.

STRESS

- In the case of BMS we have physical stress caused by the pain.
- This is compounded by the mental stress of worrying about “What could possibly be wrong with me?” “Is it serious?”
- Finally, there is the emotional stress of being told by doctors and family members that it is “all in your head,” “Snap out of it” etc. (See the chapter on [Geographic Tongue for more on Stress](#)).

For those who have skipped over previous chapters to get straight to the heart of their problem, which is BMS, I would highly recommend that you read the previous chapters because many of the points will apply here. One of the main points is that “terrain” is the key.

What we mean by terrain is that your body is a system and if it is healthy, germs bounce off and have very little effect. We all know people who never get sick no matter how many germs they are exposed to. My son is one of them. He is basically very healthy with a low amount of Candida in his system and even if he is exposed to the flu all that seems to happen is that he may feel bad for a day and he bounces right back!

I am convinced that we can cultivate our “terrain” so that it becomes so healthy that our bodies can handle anything that comes up, just like my son. The interesting thing about that is we don't have to know the “cause” of the illness.

Worrying about the cause of the illness is a little like worrying about whether it was a nail or a piece of glass that punctured our tire! Does it really matter? If our tires were puncture proof, what difference would it make?

MAGIC BULLET OBSESSION

Modern medicine is obsessed with finding the cause because they need to know what the cause is before they can create a “magic bullet” tailored just for that specific disease.

If we work on developing our overall health, we will begin to repel all diseases so it doesn't really matter which one is causing BMS.

Many people have multiple problems in addition to BMS like Chronic Fatigue Syndrome (CFS), herpes, and psoriasis, so in these cases especially, I would think that working on improving the “terrain” would be especially helpful. Magnesium has been noted to be helpful for a variety of problems perhaps because so many people are deficient in it. It helps heart problems, constipation, CFS and may also be helpful with Burning Mouth Syndrome.

THE BODY'S COMMUNICATION SYSTEM

Personally, I don't think BMS is actually a disease. It could be a deterioration of the terrain or the nervous system. One thing that I have not touched upon yet is the relationship of the nervous system to overall health. Your nervous system is like the communication system of the body, Chiropractors believe that these nerve signals are not only carriers of pain signals but also carry energy throughout the body. Therefore, in addition to being the telephone system of the body they are also the electrical system.

Many people with BMS seem to be having other aches and pains, like neck, shoulder, leg and back problems. If the nerve signals are not flowing properly, especially because of neck problems, perhaps this could be a link with this burning. If this is true, perhaps a good chiropractor would help. There are two ways this is possible. The first is that a chiropractor might correct the signal impairments that are reducing the energy flow to the body and reducing the health of the overall terrain. The other way would be if a specific pinched nerve were causing the pain. I personally have seen great improvements in both overall health and in specific pinched nerves by people visiting chiropractors.

THE SECRET TO TROUBLESHOOTING- GOOD DETECTIVE SKILLS

I have spent some time as a computer network administrator and one of the key skills necessary for that job is called "troubleshooting." Troubleshooting is nothing more than being able to logically look at a problem and find an organized way to solve it. I have always been quite good at this (if I do say so myself).

One of the reasons for my success is because I found out early on that if you are looking at the big problem and a smaller problem is evident, you need to fix the smaller problem. Many technicians would ignore the small problems and continue to look for a solution to big problem. They didn't think the smaller problem could possibly have anything to do with the overall big problem. For some strange reason, however, the big problem will resolve or at least lessen when the smaller problem is resolved. Therefore, by slowly picking at all the small problems eventually the big problem will be resolved.

What does this have to do with BMS? Well, it is possible that your system is being overwhelmed by the abundance of smaller problems. By removing a few straws from the camel's back perhaps he will be able to get back up again and start handling the load. If you continue removing straws, perhaps he will begin to step a bit livelier and before long, perhaps he will be running and skipping down the road.

In other words, start small and remove one stress at a time: preservatives, fluoride, SLS, alcohol, candida, drugs (prescription and otherwise), indoor air pollution, allergens, anger, tension, disagreements, etc.

COMMON THREADS

Another common thread in BMS is dentistry. It is common for people to have the feeling that it is somehow related to a specific filling or root canal that they have had.

- One woman said that her problems started the day after she had a root canal!
- A 79-year-old man went so far as to have all his teeth pulled because he had been suffering for 10 years.

Dental problems have been known to cause all sorts of things. See the chapter on [Leona's fillings](#) and how they related to Geographic Tongue for more information.

"You wouldn't take a leaky thermometer, put it in your mouth, and leave it there 24 hours a day, 365 days a year. Yet that's exactly what happens when an amalgam filling is installed in your mouth." ----Dr Michael Ziff

"Dental mercury amalgams are not stable...they undergo CORROSION, and dangerous amounts of MERCURY VAPOR are daily released....that may be inhaled by the lungs and in that way enter the general blood circulation and pass into the whole body. However far more dangerous are similarly released mercurial FUMES, which instead settle down on the mucous membranes in the upper region of the NASAL CAVITY, from where the mercury is transported directly to the brain! These pathways are either by the OLFACTORY NERVES or by the valve-less cranial VENOUS system that presents an open venous communication between the oronasal cavity and the brain." —Patrick Stortebecker, M.D., Ph.D. (emphasis mine)

Tom Warren has written a book on how mercury is related to Alzheimer's disease (and many other problems including cancer, etc.). Primarily the focus is how to safely remove the problems caused by dental work. So even though the title is [Beating Alzheimer's: A Step Towards Unlocking the Mysteries of Brain Diseases](#) by Tom Warren, I would highly recommend that people suffering from BMS look into this as an area of possibility. See also the Chapter on [Tongue Fissures](#) and how they relate to heavy metals and what can be done about them.

15 COMMON COMPLAINTS

(related to mercury poisoning)

Mercury poisoning and toxic chemicals cause many common medical and mental problems. Here are some common ones:

1. Irritability, emotional instability and explosive behavior
2. Chronic fatigue
3. Depression
4. Low stomach acid
5. Malnutrition
6. Candida overgrowth
7. Excessive belching and flatulence
8. Putrefaction, parasites, flukes, fungus, etc.
9. H-pylori (Helicobacter pylori)
10. Leaky gut syndrome
11. Food allergies and chemical sensitivities
12. Loss of the ability to control weight
13. Poisoning of the liver
14. Dry flakey skin
15. Abnormal white cell blood count ranging from 10,000 to 22,000 mm³

A strange but logical result of mercury poisoning is a grey discoloration of the genitals and arm pits. The proper color for genitals is light pink but if mercury is present they may become grey like mercury. During mercury detoxification, all of the above areas eventually become light pink again.

OTHER SIGNS TO WATCH FOR ARE:

- White spots on finger nails indicating a zinc or calcium deficiency
- Hangnails which might indicate a Folic Acid deficiency
- Unable to remember dreams caused by a B₆ deficiency
- Geographic tongue (see [Geographic Tongue](#) chapters for more information)
- White growth on the tongue (see [Candida](#) chapter)
- Frequent urination could be mercury toxicity or diabetes
- Poor digestion from insufficient stomach acid

Caution:

Rapid and random removal of mercury fillings can actually make matters worse by temporarily increasing the levels of mercury in the body. Patients who are seriously ill are strongly advised against removing more than one or two fillings at a time. Waiting four to six weeks (multiple sclerosis, eight weeks) between amalgam removal sessions is highly recommended.

GALVANIC RESPONSE

One of the other possibilities causing BMS is related to metal fillings but not directly caused by mercury poisoning. This is called galvanic response. Basically the elements of a battery are acid and two types of metal. Did you know that you can actually make a battery using a lemon, a penny and a paperclip? There's a chemical reaction between the steel in the paper clip and the acid in the lemon juice. There's also a chemical reaction between the copper in the penny and the lemon juice. These two chemicals cause the electrons to migrate from one metal to the other creating electricity (all common batteries are based on this principle).

Now think about this for a moment, saliva is acidic as are many foods we eat, fillings are 50% mercury, 30% copper, 14% each of tin and silver, and 1% zinc so by combining metals and acid it is easy to see how fillings could actually be producing minute amounts of electricity. By placing these miniature batteries in very close proximity to the nerves in your teeth it is quite possible that the nerves are constantly being triggered... which is resulting in the pain.

Unfortunately just removing the fillings or even the teeth may not solve the problem. Often after removing a tooth, the socket (hole) heals over but inside the hole is a "cavern" that is lined with bacteria, dead cells, and polymorphonuclear leucocytes (PMNs). All this dead and decaying matter provides a ripe location for disease to form.

In addition, if you pull a tooth that has been filled down into the root, it will have a small sac of infected tissue attached. To prevent this, the bone around the cavity must be thoroughly cleaned out to allow healing with normal bone tissue. If root canals and cavitations are removed, there can be dramatic improvements. In one case, a doctor recovered from Alzheimer's disease in only two hours by removing 13 root canals! The dentists who specialize in the proper removal and replacement of mercury-silver amalgam fillings are called dental detoxicologists. They say mercury-silver amalgam fillings, cavitations and root canal infections are connected to more than 200 specific diseases.

THE OPPOSITE OF GALVANIC RESPONSE

As strange as it may seem after talking about the possibility of having too much electricity, i.e., a galvanic response, it is also possible that there is also too little electricity. BMS is most common in older people and it is possible that a mineral deficiency is causing a lack of nerve energy that is being registered as pain.

PH IMBALANCE

I recently received the following from a woman who suffered with BMS for 18 months before finding a solution.

"I finally was treated for a PH imbalance and it resolved about 98% of my symptoms... The treatment is very simple and there are many different books on the subject. I found immediate relief by drinking apple cider vinegar and lemon juice. There is a list of food sources that once metabolized in the body will become alkaline in your stomach and help your tongue if you are extremely acidic and that is the cause." [Books on PH imbalance](#)

CAVITATIONS

Most cavitations (jawbone infections) are caused by root canals or sloppy dental housekeeping. Often the dentist does not clean up infection enough, relying on antibiotics to do the job or misses part of the periodontal ligament that attaches the tooth to the jawbone.

All "dry sockets" will become infected. A "dry socket" happens when the blood clot is lost from the socket before it is fully healed. It is kind of like "picking off the scab" too soon. When the blood clot is lost before the underlying structures have time to heal, the bone is exposed to the air and saliva in the mouth. This triggers the small nerve endings in the socket and is extremely painful. Blood causes the solid bone to regrow. By introducing streptococcus bacteria and closing off the oxygen, the "good" aerobic bacteria will become "bad" anaerobic bacteria. This will cause cavitations within ninety days.

A machine called a "Cavitat" has been invented. The Cavitat uses acoustic sound-waves to find cavitations by providing 3-D images of the interior of the jawbone.

Interestingly, after detection by the Cavitat, a significant number of these patients have had surgery to remove these lesions. Often these patients have begun to recover from long-standing systemic illnesses.

The relationships between mercury-silver fillings, oral electrical galvanism, root canals, cavitations, heavy metal toxicity and chemical sensitivities are complex and not totally understood by the dental community.

Another possibility is the build up of bacteria along (or below) the gumline. Some research indicates that using an irrigation device like a "Water Pik ®" can clean out around the teeth and even below the gum line. There is a device called a "Via-Jet Pro ®" that has a reservoir and a pump that allows you to use other liquids other than just tap water so it can introduce antibacterial solutions like Biotene or Hydrogen Peroxide to the source of the inflammation.

According to OraMedia the supplier of the Via Jet Pro

"The entire purpose of irrigating is to clean the affected area so that bacteria cannot feed on the foods left behind. Of course, in many cases, this may already be happening where you see red, inflamed gums, loose, bleeding or painful teeth, pockets with a terrible odor emanating, etc. These symptoms are indicative of stages of periodontal disease(s), to put it simply."

More information on [OraMedia and ViaJet Pro](#)

FINDING THE RIGHT DENTIST

Most dentists believe in trying to save a tooth at all costs. However, no tooth is worth saving if it damages your immune system. If you are seriously ill, there is a very narrow margin for error in removing and replacing mercury-silver amalgam fillings. Dental detoxicologists and many mercury free dentists have specialized training to reduce the chances of permanent disability. Do not just go to your normal dentist who put in the fillings in the first place!

Dr. Hal Huggins, the dentist who rediscovered that silver-amalgam fillings leach mercury, is now waging an all-out war against mercury. He has switched his practice from filling teeth to diagnosing and treating mercury toxicity in dental patients. He says that everyone has a weak link, but that everyone has a different weak link, which is why the mercury-mental-health connection was not made until recently. If your weak link happens to be neurological, he says, then-bang! - your neurological system gets zapped.

Dr. Jaro Pleva, Ph.D., of Sweden, is a corrosion scientist and specializes in mercury toxicity. He has found approximately 27 percent mercury remaining in five-year-old amalgam fillings (remember new fillings have about 50 percent mercury). He found twenty-year-old fillings to have less than five percent mercury.

The average person cannot stand doses of more than 100 micrograms of mercury a day. A recent study found 150 micrograms of mercury leaching off fillings daily. What happens to this mercury? Part of it actually vaporizes off the surface of a filling. As we inhale, this vapor enters our lungs and can be absorbed into our bloodstream. As we eat, it is absorbed into our food, swallowed, digested and absorbed into our bloodstream.

Although Mercury is toxic in its liquid and vapor forms, there is another form that is considered even more toxic, especially to the nervous system. It is a chemical form called methyl mercury. According to Thomas Ely, M.D., "*Methyl mercury is one of the most potent and insidious poisons in existence*".

Another good book on this subject is [It's All in Your Head: The Link Between Mercury Amalgams and Illness](#) by Dr. Hal Huggins [Uninformed Consent: The Hidden Dangers in Dental Care](#) also by Dr. Huggins and [Amalgam Illness, Diagnosis and Treatment: What You Can Do to Get Better, How Your Doctor Can Help](#) by Andrew Hall Cutler.

If you are looking for a dentist to check on this, you can call Dr. Hal Huggins in Colorado (719) 548-1600 or the Well Mind Association (206)-547-6167 in Seattle, WA.

There are many problems other than BMS that have been said to be related to amalgam fillings and mercury poisoning—even things like Alzheimer's and breast cancer. Obviously, this is not the place to discuss them but you might check out the two books mentioned above. Simply click on the title and you will be able to read the reviews and decide if they might be helpful to you.

OTHER RECOMMENDATIONS FOR BURNING MOUTH OR TONGUE

One of the chemical drugs often prescribed by the medical profession is "Klonopin." It is a pain killer designed to mask the symptoms without addressing the cause. Unfortunately, Klonopin and many other strong painkillers have severe side effects including depression. As many as fifty percent of the patients

taking Klonopin end up suffering from depression. Other pain medications prescribed have been Neurontin and Elavil.

Here is what Tammy had to say about these:

Hi Tim,

Hey, I just had to pass on the good news to you! I went to the University Wed. and the oral pathologist that I saw says that he sees about 2-3 cases of burning mouth in his office a week. He says that it is a neuropathy nerve pain and they prescribe Neurontin. I'm on 300mg which is the lowest dose he gives. PRAISE GOD..... I'm already feeling a difference. Even the first day I felt a difference. It's amazing, I can't believe it. I've been in pain for so long and it feels odd to not have the pain, but believe me, I'll take it! He says that eventually I'll be able to wean off of it some then maybe off for good, but it will be awhile though. One side effect is sleepiness. I take a pill in the a.m. and 2 at night. The night time isn't bad but it's hard to get up out of bed and take a pill that makes you sleepy all over again. Anyway, I just thought that you'd like to know what the outcome was. Thanks for everything, and I'll keep in touch, you do the same, ok?

Thanks,

Tammy

Tammy was able to get some relief using *Neurontin* but it has side effects, sleepiness, and doesn't resolve the underlying problem and has strange bioavailability issues. The more you take the less absorbable it is.

On the plus side, pain is also a stressor so eliminating the pain and simultaneously building your system up could result in your body being able to handle the problem and thus allow you to "wean" off the painkillers. Worst-case scenario, it could also result in clinical depression (often due to the drugs depleting critical vitamins or minerals) and that can result in endless rounds of other drugs to "fix" the side effects of the first drugs.

A STRANGE NATURAL PAIN KILLER

One of the most effective and interesting non-prescription painkillers is ordinary table grade Tabasco Sauce. I find it a bit ironic that they would treat burning mouth with something that burns my mouth! Sort of like fighting fire with fire, I suppose! Actually, this has been one of the best-received treatments. Capsaicin, the primary ingredient in chili peppers (and the part that causes the burning sensation), is used to treat many other types of pain.

There are all sorts of capsaicin creams on the market to fight the pain of arthritis, shingles, psoriasis, and other skin disorders. One problem with these creams is they burn your fingers when you try to put it on! You also have to be careful or you may get some in your eyes. In addition, you also have to be careful not to breathe it in because it can burn your lungs.

Capsaicin is found only in chili peppers and in no other plant, animal, or mineral. Detectable to the human taste buds to one part in one million, this powerful alkaloid is extracted from hot chilies as an oleoresin (thick oil) used in super-hot sauces and pepper sprays. The oleoresin is refined into a white crystalline

powder that is so toxic that technicians can work with it only in clean rooms while clothed in protective suits with filtered air. Many experts believe that capsaicin's use as a medicine has a great future that scientists are just beginning to discover.

Capsaicin is an incredibly powerful and stable alkaloid seemingly unaffected by cold or heat, which retains its original potency despite time, cooking, or freezing. It is slightly soluble in water, but very soluble in alcohols, fats and oils. It is thought that it kills pain by actually overloading the nerve receptors so that they can't fire anymore.

Capsaicin is also used in "Pepper Spray" which is used to scare off attackers and even has been used against bears!

The procedure for treating Burning Mouth Syndrome is to mix Tabasco sauce with water and swish it around in your mouth. There are some other hot sauces that add the chemical oleoresin capsicum to their sauces, each trying to be the hottest.

Caution: According to Dave Dewitt author of "*The Healing Power of Peppers*"

Most people react very negatively to the super-hot sauces, experiencing severe burning and sometimes blistering of the mouth and tongue. Other immediate responses have included shortness of breath, fainting, nausea, and spontaneous vomiting. People should be very careful of commercial hot sauces that list oleoresin capsicum as an ingredient.

Aside from the above adverse effects, the super-hot sauce will not hurt you... even if you do overindulge in capsaicinoids, do not worry, for they are quickly metabolized in the liver and excreted in urine within a few hours.

For more information on capsaicin, you might try finding a book called [The Healing Powers of Peppers](#) by Melissa Stock, Kellye Hunter, and Dave Dewitt. Unfortunately, it is out of print and has limited availability, but perhaps a library near you has a copy. A book on peppers that is in print is [The Chile Pepper Encyclopedia](#) also by Dave (the king of Peppers) Dewitt.

BURNING MOUTH SYNDROME RESEARCH

A recent study in Napoli, Italy found a link between Alpha-lipoic acid (ALA) deficiency and burning mouth syndrome. About 1.3 million adults, mostly postmenopausal women, are afflicted with Burning Mouth Syndrome in the United States alone.

The double-blind study divided the group of 42 subjects into two groups matched for age and sex. The test group was given ALA (thioctic acid; Tiobec) for 30 days, as 600 mg per day orally for 20 days followed by 200 mg per day for 10 days. The Control group was given cellulose starch 100 mg per day as placebo for 30 days. All BMS patients were reviewed at 10- day intervals.

The results were amazing. Two-thirds of the patients receiving the Alpha-Lipoic Acid showed "significant improvement" compared to only 15% of those receiving the placebo. Later the placebo group was given the ALA and two-thirds of them also showed significant improvement and the majority showed at least some improvement after 2 months and maintained it over the following year. Prior to the study, there was no laboratory evidence of deficiencies in iron, vitamins or thyroid function in any of these patients.

Alpha-lipoic acid is a powerful fat and water-soluble antioxidant. It directly recycles Vitamin C and indirectly recycles Vitamin E, providing additional antioxidant protection. It is also an important component in the glucose metabolism process within cells. It is available in from a variety of sources as seen by this list from Amazon. [Alpha-Lipoic Acid](#)

BMS AND YEAST

According to a recent study done by the Department of Oral Surgery, Osaka Medical College, Osaka, Japan on BMS: participants were divided into three groups: those with manageable pain, those with high pain and those with mixed pain. They found that of those with manageable pain, 73.0% tested positive for Candida when they did a culture even though only 59.5% appeared to have Candida by direct examination of the doctor.

In other words, 13.5% of the time even though the Candida was there the doctor couldn't see it! But when they did the culture they found it and in this group when they were treated for Candida their pain subsided. So looking at Candida as a possible cause of BMS is definitely warranted.

BMS AND DRY MOUTH

Burning Mouth Syndrome (BMS) is often accompanied by dry mouth and/or a bitter or metallic taste in the mouth. In some cases, this condition may be associated with Vitamin B12 deficiency, oral yeast infection (Candida Albicans), or even irritation from dentures.

Some other Causes are:

- Endocrine disturbances
- Vitamin deficiency
- Medications (side effects)
- Diabetes mellitus
- Erosive Candida infections
- Galvanism (electrical current created by metals and acid in the mouth)
- Hypersensitivity to methyl-methacrylate
- Antiseptic sprays

Vegetarians and others who go light on meat may be depriving themselves of iron. Another type of anemia, called megaloblastic, results from a vitamin B deficiency. Vegetarians, especially vegans who consume no animal products, often suffer from Vitamin B₂, Vitamin B₆, niacin, biotin, folic acid, or Vitamin B₁₂ deficiency, all of which can cause an irritation of the mouth or tongue. (see chapter on [Vitamins](#)).

[Sublingual B-Complex](#)

One of the specific vitamin deficiency symptoms for Vitamin B₂ (Riboflavin) is “a red sore tongue.” One of the symptoms of a B₆ deficiency is sore lips and tongue. One symptom of a Vitamin D deficiency is “burning mouth and throat” so these are all good places to start when looking for a deficiency cause of burning mouth syndrome.

BMS AND ENZYMES

As I mentioned in the chapter on [Hairy Leukoplakia](#) both bromelain and papain are plant-derived proteolytic enzymes. Bromelain, also known as bromelin, is a protein-digesting enzyme derived from the flesh and stem of the pineapple plant. Bromelain is known to reduce inflammation, decrease swelling and new uses are being discovered almost daily. Bromelain has been used as a natural anti-inflammatory enzyme. Arthritis patients use it to reduce the swelling that causes joint pain.

Bromelain has been used in:

- Reducing the pain from carpal tunnel syndrome (CTS).
- Prevention of the adhesiveness of platelets to endothelial cell walls
- Reducing the risk to thrombotic heart attack or stroke.

Papain is an enzyme from the papaya plant. Papain has been shown to be effective in preventing burn wound infection and helping remove dead cells.

Papain is also used for the following:

- Remove fibrin from wounds in hospitals
- Preventing cornea scar deformation
- Used in treatments of jellyfish and insect stings
- To treat edemas, inflammatory processes, and in the acceleration of wound healing
- In low doses as an indigestion medicine
- Papain has been used to treat ulcers, dissolve membranes in diphtheria and reduce swelling, fever and adhesions after surgery.
- As a meat tenderizer since it helps break down protein.

Although I wasn't able to find any evidence of its use in BMS, the tablets taste good and seem to have a great many other benefits including digestion and improved virus resistance so they might be worth a try in reducing the pain of BMS. [Papaya Enzyme](#), [Bromelain Plus](#),

BMS AND MINERALS

Minerals like calcium and magnesium have been known to calm stressful nerves and provide many benefits. As I mentioned earlier, magnesium may be helpful for those with Chronic Fatigue Syndrome and for BMS. All that I have said previously about minerals also applies here (see [Geographic Tongue](#) chapter for more information on Minerals). Copper deficiency symptoms include listlessness, fatigue, memory deficits and **Sore Tongue**.

BMS AND HERBS

Tea tree oil has been recommended in other areas of this book for other tongue issues. I haven't heard of anyone using it for BMS but it does have a strange numbing effect. I brush with it regularly—just a half drop on my toothbrush. You could try a drop on your tongue and let me know if it helps.

RECOMMENDED TREATMENTS FROM FELLOW SUFFERERS

- Try cutting down on caffeine (coffee and cola drinks) and drink plenty of pure filtered water
- Try relaxation methods. Breathing exercises and mild workouts (if you don't have much exercise)
- Lots of fresh fruits and vegetables
- Cut down smoking and drinking
- Oral/dental hygiene. Mouth wash and gargle with a mild salt solution or 2% baking soda-- whichever seems to be giving good relief
- Vitamin supplements containing all the B-complex vitamins
- Alpha-Lipoic Acid (ALA) to help heal damaged nerves.

- An oral pathologist is the best to go to figure this out—not an oral surgeon but an oral pathologist
- Try biotene toothpaste and mouthwash. Avoid Toothpastes with Sodium Lauryl Sulfate (see the chapter on Geographic Tongue for more information- editor)
- Brush with Baking Soda
- Check for food allergies
- Gargling with “cured” sesame oil saying that it strengthens the gum tissue. See [Oil Pulling. Sesame Oil Organic, 8.5 fl oz.](#)
- Another unusual strategy was wheatgrass juice... being a whole healthy cooling type food it is possible it might help not only with BMS but with improving your overall health. [Organic Kamut Wheat for Wheatgrass 16 oz](#)
- Take a multi mineral, have iron, potassium, zinc and other mineral levels checked.
- Eat almost anything. Just having something in your mouth to taste helps cancel the pain.
- Hold a tablespoon of sour cream on your tongue as long as you can.

RECOMMENDED TREATMENTS FROM THE BAD BREATH BIBLE

1. Stop using oral products containing Alcohol and/or Sodium Lauryl Sulfate
2. Stop drinking citrus juices (tomato, orange, grapefruit, etc)
3. Avoid coffee
4. Avoid Alcohol
5. Do not smoke
6. See your physician regarding the possibility of diabetes or thyroid problems

Recommended daily regimen for those with Burning Tongue Syndrome

- Coat tongue twice daily with TheraBreath [PerioTherapy Toothpaste](#) and let sit on tongue for 90 seconds
- Rinse with 1-2 capfuls of [Oral Rinse](#) for 90 seconds
- Drink 8 glasses of water per day
- Take Vitamin C daily as recommended on label

OTHER RESOURCES

NIH/National Institute of Diabetes, Digestive and Kidney Disorders
 Building 31 Rm 9A04
 31 Center Drive
 Bethesda, MD 20892-2560
 (301) 496-3583

NIH/National Oral Health Information Clearinghouse
 1 NOHIC Way
 Bethesda, MD 20892-2560
 (301) 402-7364
 TDD: (301) 656-7581
 nohic@nidcr.nih.gov
 website: www.nohic.nidcr.nih.gov

CHAPTER 18

PIGMENTED TONGUE AND REDUCED ADRENAL FUNCTION



Pigmented tongue is primarily due to a disease called Addison's disease that results in the edges of the tongue getting black spots. This is an extremely serious disease that can result in death. If you suspect Addison's disease talk to your doctor. He will probably be unfamiliar with it because it is extremely rare with only 1 in 100,000 people getting it. However, many people suffer from a milder problem of reduced adrenal function. In other words, instead of your adrenal glands completely quitting, they just slow down! Some doctors do not recognize this as possible and so refuse to look at the possibility.

Other doctors like Jonathan Wright (medical columnist for *Prevention* magazine) argue strongly that there are definitely levels of function and many problems like chronic fatigue might be explained by this problem. It always seemed obvious to me that if a complete failure of something causes certain symptoms, a partial failure or reduced function would cause the same thing in a milder form.

In other words, if a complete failure of the adrenals caused extreme fatigue, a slowing down of the system might cause mild fatigue. Doesn't that seem rather obvious? What are the symptoms resulting from complete adrenal failure?

SYMPTOMS

The major symptoms of adrenal failure come on slowly and they are:

- Chronic worsening fatigue (tiredness)
- Muscle weakness
- Loss of appetite
- Weight loss
- Nausea
- Vomiting
- Diarrhea
- Low blood pressure (causing dizziness and fainting)
- A sort of "tanning" or darkening of skin even though it is not exposed to sunlight.
- Irritability
- Depression
- Salt craving

The adrenal glands are located just above the kidneys and they produce a whole group of hormones called glucocorticoids, which play a key role in many of the body's functions but especially in responding to stress.

Other key roles are:

- Regulate metabolism
- Maintain blood pressure (through regulating potassium and sodium levels)
- Balance insulin activity
- Regulate the system's inflammatory response

INFLAMMATORY RESPONSE

The main reason for the use of synthetic cortisol (the series of cortisone drugs like hydrocortisone called steroids) is for fighting all types of inflammation. Unfortunately, too much cortisol is just as bad as not enough. It must be precisely balanced. If you take synthetic cortisone treatments, you are told you cannot immediately stop taking them. You must slowly wean yourself from them. They actually cause your adrenal gland to shrivel up and stop producing because its sensors tell it there is plenty so it doesn't need to produce anything.

I was on Prednisone for a long time fighting the inflammation in my intestines from Crohn's Disease. I was technically suffering from "hypocortisolism." In other words, my body wasn't producing any cortisol because I was taking such large doses of synthetic cortisone. I remember one time being away from home for longer than I had expected and not having my medicine with me and feeling a very strange sensation in my back just above my kidneys! It felt sort of like squeezing the last drop out of a lemon or something. You have to be very careful in that type of situation because that could have done serious damage to my adrenals perhaps resulting in me having ended up with Addison's disease.

Fortunately, that did not happen and eventually I was able to get off steroids completely. It is an extremely dangerous drug because of the need to wean yourself and that is why it is so dangerous for athletes to be using them simply to build muscle mass. They are flirting with Addison's disease for the sake of winning games.

Although the adrenal gland produces hormones to regulate other activities, the pituitary gland produces a hormone called ACTH that regulates the adrenal gland.

Addison's disease is the result of the adrenal glands completely stopping their production of essential hormones (cortisol and aldosterone). It doesn't discriminate and attacks both men and women equally. It results in weight loss and darkened skin on all parts of the body (including the tongue). Another name for the disease is hypocortisolism—meaning not enough cortisol.

PRIMARY ADRENAL INSUFFICIENCY

If your adrenal gland doesn't produce enough cortisol because of a problem with the adrenal glands themselves; this is called primary adrenal insufficiency. If the problem is because the pituitary gland isn't telling it to produce enough then it is called secondary adrenal insufficiency. Most of Addison's disease cases are the result of the body's own immune system attacking the outer layer of the adrenal glands, slowly destroying them so they can't produce.

Because the symptoms come on gradually, many people suffering from Addison's disease don't seek treatment until a stressful event (like an accident or illness) triggers a crisis.

SYMPTOMS OF AN ADDISONIAN CRISIS

- Severe vomiting and diarrhea
- Sudden pain in the lower back, abdomen, or legs
- Dehydration
- Low blood pressure
- Loss of consciousness

Left untreated, an Addisonian crisis can be fatal.

DIFFICULT DIAGNOSIS

In the early stages, Addison's disease can be difficult to diagnose. Because it is so rare, most doctors have never seen a case of it. By reviewing the patient's medical history, especially the dark tanning of the skin, the doctor should suspect Addison's disease. The final diagnosis of Addison's disease is made by doing lab tests. They test to see if there is enough cortisol. The next step is to determine the cause. X-rays are often used to help determine the cause.

ACTH STIMULATION TEST

In this test, they first test the blood or urine to see how much cortisol is there then they give you ACTH and see how you respond. If the amount of cortisol doesn't rise as it is supposed to, you aren't producing enough cortisol.

CRISIS TREATMENT

It is important that treatment is begun as soon as it is determined that the patient is having an Addisonian crisis. Normal treatment includes injection of salts, fluids and hormones. Potassium deficiency can result in leg cramps, extreme thirst, extreme chills and heart stoppage rapidly thereafter. Potassium deficiency can result also from diarrhea or vomiting and can be mistaken for a bad case of the flu. I had an Uncle that died from what he thought was the flu but turned out to be potassium deficiency. My daughter recently had a bad case of diarrhea followed by leg cramps, queasy stomach, etc. A simple glass of lemonade with extra potassium chloride added solved her problem in less than an hour.

NORMAL TREATMENT

Normal treatment of Addison's disease involves replacing, or substituting, the hormones that the adrenal glands are not making. Cortisol is replaced by taking pills like Prednisone and if aldosterone is also deficient, it is replaced with pills of fludrocortisone acetate (Florinef). If you are taking aldosterone replacement therapy, you will probably be told to increase your salt intake. Some patients do not need aldosterone replacement therapy. That will need to be determined by a doctor.

EMERGENCY PREPARATION

When traveling, it is very important for someone with Addison's to have an injectable dose of cortisol ready for emergencies. A person with Addison's disease also should know how to increase medication during periods of stress or mild upper respiratory infections. While I was dependent on synthetic cortisone, I was out mowing the lawn one day and ran over a nest of extremely aggressive very large ground bees that had made a nest in our lawn. Within seconds, a dozen bees stung me and more were coming. I ran to the house and slammed the door but not before three more got in and attempted to sting me. Immediately I began to swell up all over so I took a full day's dose of prednisone, which promptly stopped the inflammation and probably saved my life.

Immediate medical attention is needed when in times of extreme stress. If severe infections, vomiting or diarrhea happens, it can start an Addisonian crisis. Someone with adrenal insufficiency should always carry notification for emergency personnel. It should state the need to inject 100 mg of cortisol if its bearer is found severely injured or unable to answer questions. The card should also include the doctor's name and telephone number and the name and telephone number of the nearest relative to be notified. If you cannot swallow your normal medication because of vomiting, you may require injections of hydrocortisone. Many people with medical problems wear a special warning bracelet or neck chain to alert emergency personnel.

Bracelets and neck chains can be obtained from:

Medic Alert Foundation International
2323 Colorado
Turlock, California 95381
(209) 668-3333

ALL OR NONE

Some doctors believe that either your adrenal glands work or they don't. Other doctors like Jonathan Wright, medical columnist for *Prevention* magazine, believe that there are levels of production. In other words, it is possible that your adrenal gland is just a little weak. Therefore, your levels of cortisol will just be slightly lower than normal rather than nonexistent. This is consistent with my experience as I tapered off the Prednisone my adrenals began producing enough to make up for that which I wasn't taking.

SIDE EFFECTS

Unfortunately, taking synthetic hormones can cause a range of side effects. Including:

- Suppression of the immune system
- Delayed wound healing
- Ulcers
- Osteoporosis
- High blood pressure
- Diabetes

NATURAL SUPPLEMENTS

Those with weak adrenal glands might consider taking natural [Adrenal Cortical Extract](#) (ACE). This is a much milder and better-balanced approach than synthetic cortisone. Actually, the body produces from 30 to 50 hormones so only taking one and expecting it to do the whole job is short sighted.

In addition to ACE, there is an even milder approach that is available from health food stores: [Whole Animal Adrenal Substance](#). Dr. Wright seems to think that it can help in people with mild cases of weak adrenals. For full-fledged cases of Addison's disease, you would need to take the much stronger cortisone treatments.

FATIGUE AND ADRENAL FUNCTION

If your adrenals are over stimulated, they can become exhausted. This generally results in fatigue. This can often be seen in coffee addicts: people who need more and more coffee just to get up and going in the morning. The caffeine in coffee stimulates the adrenal glands to produce and "jumpstart" your

system. Unfortunately, like any drug, the effects get smaller and smaller so more and more caffeine is needed.

This caffeine is draining the reserves of the adrenal glands and making them less and less effective. Unfortunately, doctors see this so often that they don't even notice that it isn't the normal state of your body. Information about non-Addison's hypoadrenia has been documented in medical literature for over a hundred years but unfortunately, this form of hypoadrenia is missed or misdiagnosed by many modern doctors today.

Adrenal fatigue is often the cause of a patient's rundown feeling. Some people believe that fibromyalgia, chronic fatigue syndrome, hypoglycemia, adult onset diabetes, autoimmune disorders, more frequent respiratory infections, allergies and a number of other health problems are actually the result of a weakened adrenal gland.

Low adrenal function can also have an effect on your mental state producing anxiety and depression. People with adrenal fatigue can show a tendency toward increased fears and apprehensions, have intervals of confusion, increased difficulties in concentrating and less acute memory recall. Because of the lower reserves, they can have a lower tolerance for many different types of stress and may suffer from insomnia.

People suffering from adrenal fatigue may have some form of hypoglycemia. If doctors were to look for adrenal fatigue in the beginning, it is possible that many more serious conditions could be avoided. Adrenal fatigue syndrome is treatable with natural, safe substances. Unfortunately, in January 1978, the FDA sent regulatory letters to 78 drug firms in which it said that ACE products represented a substantial risk of under-treatment because of the drug's low potency and therefore posed a significant potential hazard to patients with adrenal insufficiency. In other words, because it wouldn't treat the absolute worst cases it shouldn't be used for anyone!

The FDA preferred the drugs of the pharmaceutical industry to the natural ones that had been used for ages. For those not suffering from Addison's disease it might be beneficial to try ACE or the weaker Whole Animal Adrenal Substance and see if it is of any help. Once again, this is a case where it is possible that improving the "terrain" or the whole system by improving the function of the adrenal glands should prove a great benefit to your entire overall health.

In addition, in order to improve your adrenal health it is absolutely imperative that you stop abusing your adrenal glands. This means eliminating caffeine! Just as someone who is taking artificial corticosteroids, you must wean yourself off of it slowly otherwise you will experience headaches and other signs of withdrawal.

They say that a healthy adrenal gland looks somewhat like a plum while a depleted one looks more like a wrinkled up prune. If you are experiencing fatigue symptoms, you should probably seriously consider looking at the health of your adrenal glands. In addition to ACE and adrenal substance, you might look at vitamins.

A person with depleted adrenal glands should consider:

- Vitamin C
- B complex
- Pantothenic acid
- Vitamins A and D
- Vitamin E
- PABA
- Multi-mineral
- Animal adrenal
- Animal pituitary
- Reduced stress
- Mild exercise (like walking)
- Fresh Air and Sunlight
- [Adrenal Cortical Extract](#)
- [Whole Animal Adrenal Substance](#)

Also, look at a possible connection with Yeast (candida), Molybdenum deficiency or Iodine deficiency.

You might think that getting angry would stimulate your adrenals and help them produce more but it actually strains them and makes things worse. So developing an even calm attitude can be helpful.

CHAPTER 19

TONGUE COATING

A coated tongue as mentioned in the chapter on Candida has historically been associated with some form of ill health. Of course, if you have a Candida overgrowth on your tongue, it is obviously a health issue. What if the coating is not Candida? There are actually several different types of tongue coatings caused by different factors. Obviously each has different methods of control. One type of coating is white and looks much like Candida, while another type is yellow and typically is located on the rear half of the tongue.

Many people believe that the white coating is caused by toxins and bacteria die-off lodging between the papillae and its proteins produce the white coating on the tongue. Generally, this type of white coating is whiter and not like the off-white fuzzy kind caused by Candida overgrowth.

Here is what a typical sufferer had to say:

I have a white coating on my tongue that just won't go away. I also have saliva that is stringy and is built up in my throat in the morning. It started about a year ago when I was under a lot of stress. I saw a doctor who said it might be thrush and then a dentist who said it was not. I have a few cavities that are going to be filled. Could bad oral hygiene be a cause?

Stringy Saliva is a sign of dehydration and could simply be a result of not drinking enough pure water. It could also be related to diabetes. Often drinking a bit of lemon juice in a glass of water will help to “cut” the saliva. Other possibilities include an [Oral Moistening Mouthwash the includes Xylitol](#) or [Biotene Mouthwash](#).

AS FAR AS THE WHITE COATING...

The papillary structure of the top of the tongue provides many crevices and a large surface area where microorganisms and food particles, etc. can accumulate. These microorganisms of the tongue can influence the make-up of the flora of the entire mouth. Normally the top of the tongue is either pinkish or has a thin white coating.

Many people believe that tongue coating and conditions like cavities are one of the major causes of bad breath. Bad breath is primarily caused by volatile sulfur compounds (VSC). A recent study in Korea found that by scraping the tongue, the amount of volatile sulfur in the mouth was greatly reduced. Another smaller reduction in sulfur came when the spaces between the teeth were cleaned. However, even in people with very poor dental health the major reduction came not from cleaning the teeth but from cleaning the tongue.

IS THERE A RELATIONSHIP BETWEEN A WHITE TONGUE AND TONSIL STONES?

Tonsilloliths or “tonsil stones” are usually small white, or whitish-yellow, irregularly-shaped lumps. The mucous membrane around the tonsils is fairly sensitive, so people usually feel an irritation in the back of their throat and are able to cough or work these stones out of their tonsils.

The surface of your tonsils is covered with deep pits, called "crypts" lined with oral mucosa. Normally this mucosa sheds (like all skin), and the dead cells leave the crypts and are swallowed. In some people, the dead cells collect and form hard little balls.

Many people who have tonsilloliths also complain about having a thick white coating on their tongue that won't come off. Of course, it is possible to have tonsil stones without having a white coating, but in many people, they seem to go together. This is probably because the same thing that causes a white tongue, also aids in producing tonsil stones.

Just as a white-coated tongue is caused by volatile sulfur compounds collecting on the back of your tongue, when they collect in the tonsil "crypts" you get tonsilloliths. These volatile sulfur compounds are created by the anaerobic bacteria (without Oxygen) that live between the papillae of your tongue. They are the same sulfur compounds that cause bad breath and the bad smell when you break open a tonsil stone.

Many people who have anaerobic bacteria growth in their mouth or on their tongue have found that brushing their tongue with an oxygenating toothpaste and scraping their tongue daily helps to return their tongue to its normal healthy pink color. As we have seen before, placing anaerobic bacteria in an oxygen rich environment kills the harmful bacteria and replaces it with healthier aerobic bacteria.

WHAT TO DO ABOUT YOUR TONGUE...

Start by paying extra special attention to your dental hygiene. Each morning be sure to do a very good job of brushing and flossing your teeth, and finish the job by cleaning your tongue. This is done with a plastic or metal tongue cleaner that is run down the length of the tongue to clean off any coating that has developed there over night. If you don't have a tongue cleaner, dental floss or a spoon will work but it is much easier to get a good tongue scraper.

In 1975 the US Army Institute of Dental Research did a study on "The Effects of Brushing on the Tongue Coating," it showed that brushing your tongue significantly reduced the amount of plaque on the teeth and micro-organisms on the tongue.

The [TheraBreath](#) web site includes [articles](#) about the bacteria that live on tongues and provides a good source for TheraBreath [oxygenating toothpaste](#), mouth rinse and a very good tongue scraper that I use. I highly recommend it.

THE TONGUE IS AN INDICATOR OF OVERALL HEALTH

Many people believe that the tongue is the body monitor. Since your tongue is the beginning of your digestive system, it signals what is happening there. A tongue coating may indicate that toxins are being produced in your digestive system because your food is not being digested properly. This coating provides a home to bacteria that can cause plaque to build up on your teeth and can contribute to bad breath. It can alert you to any eating habits that prevent you from fully using your foods' nutrient and the foods that are indigestible to your body.

A coated tongue is common in people with dry mouth as well as people who are under stress. In addition, people with dry mouth are often more likely to have cavities than other people. A white-coated tongue is

often believed to indicate intestinal putrefaction caused by a lack of sufficient fiber in the diet or because of intestinal impaction caused by improper emptying of the colon. As the fecal matter cakes the walls of the intestines bacteria increases and absorption decreases, this can be treated with “colonics.”

In addition to working on the symptoms (coated tongue), you probably should look for a way to improve your digestion. Most people in developed countries don't get enough fiber while those in third world countries eat almost all fiber. It is interesting that in many cases the third world diet is healthier but lacks quantity and certain vitamins due to a lack of variety.

Even though developed countries have plenty of food (quantity) and plenty of variety, they lack the basics of nutrition and fiber. Most diets lacking in fiber are because of over processing. White flour has almost zero fiber, although whole-wheat flour is full of it! The same is true of processed white rice; it lacks the fiber of brown rice.

I have found that a simple way to add several grams of fiber to my diet is to eat cereals for breakfast that are high in fiber like Raisin Bran, oatmeal, granola, Fruit and Fibre®, etc. (not processed “kid's” cereals that are high in sugar). It is easy to check the side of the box; I choose those that have three or more grams of fiber per serving. Some cereals are high in high fructose corn syrup or other “bad” sweeteners.

By adding more fiber to your diet, you strengthen your digestion, clean you intestinal walls and remove the underlying cause of excessive tongue coating. Remember to add fresh fruits and vegetables to your diet at every possible opportunity. Apples and oranges are high in fiber as are most fruits and veggies. Another way to increase your fiber is to take psyllium seed, which is very high in fiber. It can be taken in powder or capsule form. [Psyllium Seed Husks \(plus other fiber\) 8 oz.](#), [Psyllium Seed 100C](#), **be sure to drink plenty of water with it because it absorbs great amounts and can cause blockages if it isn't flushed through well enough.**

Some say that some teas will strengthen your digestion and help your body to eliminate any toxins before they form. There are many teas available at your local health food store. You might want to try to make your own from the following list of herbs and spices.

DO-IT-YOURSELF DIGESTIVE TEA...

For strengthening digestion and eliminating toxins from your system, select up to four of the following herbs/spices (do not use them all at once). Experiment with amounts to suit your taste. Grind them in a spice grinder (a coffee grinder will work, just limit its use to spices) and add about one tsp. herbs to one cup hot water. Let this steep for five to 15 minutes and drink before or between meals. This is a usually a stimulating, spicy tea. These are the same spices sold in small bottles in the grocery store for two dollars for a half ounce. They are often much cheaper when purchased in bulk.

- Basil- [Basil Herb or Oil](#)
- Black pepper- [Black Pepper](#), [Black Pepper Fruit Extract 10 mg Tablets 120](#)
- Cardamom- [Cardamom](#)
- Cinnamon- [Cinnamon Tea 60B](#), [Cinnamon Powder](#)
- Coriander- [Coriander](#)
- Cumin- [Black Cumin](#), [rooibos tea](#)
- Fennel- [Fennel Seed](#), [Colon Cleanse](#), [Fennel Seed Tea Bags](#)
- Ginger [Ginger Root Tea Bags](#), [Ginger Root 100C](#), [Ginger-Peppermint Combo 100C](#), [Cayenne Ginger 100C](#), [Ginger Common Spice and Wonder Drug Book](#)

Other herbs known to be good for the digestion are bay, bilberry, caraway, chamomile, turmeric, garlic, licorice, slippery elm, ginseng and peppermint. Others are raspberry leaf, red clover, alfalfa, barley juice, spirulina, kelp and even dandelion!

OTHER HERBS TO IMPROVE DIGESTION

BAY (*LAURUS NOBILIS*)

The Romans used bay leaves and berries for the treatment of liver disorders. The French at one time used bay as an antiseptic. Now the Lebanese steep the berries and leaves in brandy in the sun for a few days and drink it to calm queasy stomachs. [Bay Laurel Essential Oil 1/3 oz](#)

BILBERRY

Bilberry has been used to treat diarrhea, nausea and indigestion. Bilberry is also helpful for menstrual cramps and alleviating ulcers. It is also good for your eyes. [Bilberry Tea Bags](#), [Bilberry 125mg 60C](#)

CARAWAY

Researchers have discovered two chemicals in caraway seeds (carvol and carvene) soothe the smooth muscles of the digestive tract and help expel gas. For a pleasant-tasting infusion that might help aid digestion, relieve gas or menstrual cramping; use two to three teaspoons of bruised or crushed seeds per cup of boiling water. Steep ten to twenty minutes. Drink up to three cups a day. Low-strength caraway infusions may be given to infants for colic and gas. [Caraway Seed - Whole, 1 lbs](#)

CARDAMOM (*ELETTARIA CARDAMOMUM*)

Its digestive properties have made it popular as an after-dinner infusion, and it acts as a breath freshener when chewed. It is used in India for many conditions, including asthma, bronchitis, kidney stones, and anorexia. Cardamom is very high in cineole, a potent expectorant compound and a central nervous system stimulant. In Chinese medicine it:

1. Increases the Qi and replenishes deficiency; restores the lungs, spleen and nerve and generates strength; lifts the spirit and rids depression;
2. Warms and invigorates the stomach and intestines; frees spasms and dries mucous damp; awakens the appetite, settles the stomach and quells vomiting;
3. Stimulates the lungs, expels phlegm and clears the head;
4. An antidote poison and resolves contusion. [Cardamom](#)

GERMAN CHAMOMILE (*MATRICARIA RECUTITA*)

German chamomile has been taken for digestive problems since at least the first century AD. Gentle and efficacious, it is very suitable for children. The herb is valuable for pain, indigestion, acidity, gas, gastritis, bloating, and colic. It is also used for hiatal hernia, peptic ulcer, Crohn's disease and irritable bowel syndrome. German chamomile, which contains spiroether and bisabolol, very strong antispasmodics, relax tense, aching muscles and ease menstrual pain. It also appears to have relaxing action on the smooth muscle lining of the



digestive tract. One study shows chamomile relaxes the digestive tract as well as the opium-based drug papaverine. Chamomile also may help prevent stomach ulcers and speed their healing. In one experiment, two groups of animals were fed a chemical known to cause ulcers. Those also given chamomile developed significantly fewer. Then the animals that developed ulcers were divided into two groups. Those fed chamomile recovered more quickly. It also relieves irritability and promotes sleep, especially in children.

[Chamomile Tea](#)

CHAPARRAL (*LARREA TRIDENTATA*)

Chaparral is used for treating a variety of ailments—everything from tuberculosis to bowel complaints, stomach ulcers and bowel disorders, cancers, and colds and flu. It is considered to be beneficial to the walls of capillaries throughout the body and so it is good to take regularly in cases of capillary fragility.

Chaparral contains N.D.G.A., which is responsible for inhibiting several enzyme reactions, including lipoxygenase, which is responsible for some unhealthy inflammatory and immune-system responses. It has been shown to reduce inflammatory histamine responses in the lungs, which is good news for asthma sufferers. N.D.G.A. is one of the best anti-oxidants available.

Some tumors, like uterine fibroids and fibrocystic breast disease, can be helped by a concentrated extract of the plant. Chaparral can improve liver function, causing the liver metabolism to speed up, clearing toxins, and improving the livers' ability to synthesize fatty acids into high density lipids (HDLs—the good quality cholesterol). The low density lipids levels (LDLs—the poor quality cholesterol) decrease.

This could make it extremely useful in helping restore a healthy system and eliminate the cause of a tongue coating. It contains active flavonoids and ligands that in addition to being anti-oxidants, act as antifungals, antibiotics, and antivirals, which could also help the cause of your tongue problems. It has even prompted investigations into its ability to inhibit the promoter HIV and as an inhibitor of Herpes simplex-1 in cell cultures as well as Kaposi's sarcoma virus. [Chaparral Leaf](#)

CHICKWEED (*STELLARIA MEDIA*)

Chickweed historically has been used to treat both internal and external inflammations. It may be taken internally to treat chest ailments and in small quantities, it aids digestion. The saponins in chickweed are poorly absorbed through the intestinal walls, but apparently increase the permeability of the mucous membranes sufficiently to produce expectorant effects on the throat and increase the absorption of nutrients, especially minerals, from the digestive tract. It is also given as a tonic for malnourished children.

[Chickweed](#)

CHICORY (*CICHORIUM INTYBUS*)

Chicory has been used since the Roman physician Galen called it “the friend of the liver” some 1,800 years ago. A syrup of chicory, rhubarb and oats was given to patients with liver ailments. An infusion of the leaves and flowers also aids the digestion. A decoction may alleviate gallstones and kidney stones and aid in the production of bile.

Studies on rats show that inulin from chicory enhances the calcium content of the large intestines. Experiments show that chicory



extracts reduce cardiac rate in a manner similar to quinidine. It also has been found to significantly lower cholesterol and blood sugar levels. The sesquiterpene lactones found in the roasted root kill bacteria.

[Chicory](#)

CINNAMON (*CINNAMOMUM ZEYLANICUM*)

Cinnamon stimulates all the vital functions of the body, counteracts congestion, stops diarrhea, improves digestion, relieves abdominal spasms and aids the peripheral circulation of the blood. Cinnamon is the second most widely used warming stimulant in Chinese medicine, used by Chinese herbalists much as Western herbalists have used cayenne. Japanese research in the 1980s showed that cinnamaldehyde was sedative and analgesic. It is also thought to reduce blood pressure and fevers.

One German study showed cinnamon completely suppresses the cause of most urinary tract infections and the fungus responsible for vaginal yeast infections.

It helps break down fats in your digestive system, possibly by boosting the activity of some digestive enzymes. You can dust a bit of cinnamon on cuts and scrapes (it contains eugenol), which helps relieve the pain of household mishaps. [Cinnamon Tea 60B](#), [Cinnamon Powder](#)

COMFREY (*SYMPHYTUM OFFICINALE*)

Comfrey leaves and especially the root contain allantoin, a cell proliferant that increases the healing of wounds. It also stops bleeding, is soothing and is certainly the most popular ingredient in herbal skin sales for wounds, inflammation, rashes, varicose veins, hemorrhoids and just about any skin problem. Taken internally, comfrey repairs the digestive tract lining, helping to heal peptic and duodenal ulcers and colitis. Studies show it inhibits prostaglandins, which cause inflammation of the stomach lining.



In cases of bleeding of the stomach or bowels, the leaves or root should be made into a strong decoction, or a strong infusion of the leaves and regular hourly or two hourly drinks taken until the bleeding ceases. The root is stronger and more effective than the leaves. In the case of bleeding piles, the addition of distilled extract of Witch Hazel to the infusion or decoction will increase the effectiveness. To aid in the cure of mucous colitis mix equal parts of comfrey leaves, agrimony herb, cranesbill herb and marshmallow herb, use one ounce of the mixed herbs, make an infusion and take a wineglassful at least three times daily.

The leaves moisten the lungs, help dissolve and expel mucus, soothe the throat, lower fever, relieves cough and treat asthma. It is applied externally as a poultice and taken internally to promote healing of injured tissues and bones. The root is used to treat chronic lung diseases with dry cough and inflammation, sore throat, pulmonary catarrh, stomach ulcers, and wasting diseases. It is excellent both internally and externally for promoting the healing of sores, bones, muscles and other tissues, and is as powerful as some of the best oriental tonic herbs. Concurrent internal and external application has the most favorable effect on the healing process. [Comfrey](#)

CUMIN (*CUMINUM CYMINUM*)

Cumin seed is used for diarrhea and indigestion, specifically for headaches caused by ingestion. Hot cumin water is excellent for colds and fevers and is made by boiling a teaspoon of roasted seeds in three cups of water. Honey can be added to soothe a sore throat. It stimulates the appetite. [Black Cumin](#), [rooibos tea](#)

DANDELION (*TARAXACUM OFFICINALE*)

Dandelion contains much that is beneficial to our bodies: bitter compounds, choline, inulin, and large quantities of minerals such as calcium, sodium, silicic acid, sulfur and, in the fresh leaves, a high content of potassium. The bitter compounds stimulate the appetite and promote digestion. Choline affects the gallbladder and the intestines, often stimulating the mucous membranes of the large intestine in a laxative effect. It also has a relationship to the liver's lipid metabolism. Our daily requirement of choline is two to three grams and a lack of it increases fatty degeneration of the liver. Dandelion can promote bile production in the liver and its secretion from the liver. Dandelion root is a blood purifier that helps both the kidneys and the liver to improve elimination. It helps clear up many eczema-like skin problems because of this. The root has also been successfully used to treat liver diseases such as jaundice and cirrhosis along with dyspepsia and gallbladder problems.

Its use as a diuretic is favorable because it replaces the potassium that most diuretics remove. It's the herb of choice for treating rheumatism, gout and heart disease as well as regulating hormonal imbalances. Recent research shows a wide number of possibilities using dandelion. One study shows dandelion inhibits the growth of the fungus responsible for vaginal yeast infections. It stimulates bile production and prevents gallstones. There is a German preparation Chol-Grandelat (a combination of dandelion, milk thistle and rhubarb) prescribed for gallbladder disease. Traditional formulas: dandelion and barberry; dandelion and parsley; dandelion and purslane. [Dandelion Tea 30 Bags](#), [Dandelion Root 100C](#), [Dandelion Root 1 fl. oz.](#), [Dandelion Root - Cut and Sifted, 1 lbs](#)

FENNEL (*FOENICULUM VULGARE*)

Fennel warms and stimulates the digestive organs, especially when they become sluggish. This relieves gas and headaches that are related to improper digestion. An excellent stomach and intestinal remedy for treating flatulence and colic conditions, while also stimulating healthy appetite and digestion. It gives a delicious flavor and aromatic lift to herbal blends and cough syrups. To help with indigestion and gas, pour boiling water over crushed fennel seeds (one tsp. seed to one pt. of water). The seeds and root help clean the liver, spleen, gallbladder and blood. The tea and broth of this herb are said to help in weight loss programs. Use an infusion of the seeds as a gargle for gum disorders, loose teeth, laryngitis or sore throats.

Anethole, the main constituent of fennel oil, has demonstrated anti-microbial activity. Fennel should not be used in high doses as it causes muscular spasms and hallucinations.

One study suggests fennel has oddly contradictory effects on the liver. It aggravates liver damage in experimental animals but spurs liver regeneration in animals with parts of their liver removed. [Fennel Capsules](#), [Fennel Seed - Whole, 1 lbs](#), [Health Plus Super Colon Cleanse \(240 Capsules\)](#), [Fennel Seed Tea Bags](#)

FENUGREEK (*TRIGONELLA FOENUM-GRAECUM*)

Fenugreek has been used as an aid to digestion and to treat inflammations. Medicinal use and commercial cultivation is at present on the increase. Its seeds are high (40%) in mucilage, an emollient soothing to the skin and used as an emulsifier in drugs and food. The seeds also contain diosgenin, a steroid that can be converted to pregnenolone (a steroid formed during the synthesis of hormones) and progesterone, the anti-estrogen hormone secreted by pregnant women. The seeds are reported to contain chemicals that inactivate trypsin and chymotrypsin, enzymes making it possible for your body to digest protein. However, there is no evidence that fenugreek used to season food has any such effect. Seeds are high in protein and contain trigonelline, a nitrogen compound found in many legumes. When trigonelline comes in contact with acids or is heated, it yields nicotinic acid (niacin), the B vitamin that prevents pellagra. Grind seed coarsely, infuse and drink as a tonic tea to stimulate digestion and milk flow, ease coughing, flatulence and diarrhea. [Fenugreek Seed 90Gelcaps](#), [Fenugreek Seed - Whole, 1 lbs](#), [Fenugreek Tea](#)

GENTIAN (*GENTIANA LUTEA*)

One of the most bitter of the bitter digestive tonics, gentian is often called "bitter root." Taken thirty minutes before eating, it increases the appetite, stimulating digestive juices, pancreas activity, the blood supply to the digestive tract, and intestinal peristalsis. It also decreases intestinal inflammation and kills worms. Digestive juices begin flowing about five minutes after the herb reaches the stomach, and the level achieved in thirty minutes is maintained for two to three hours. It is especially helpful in fat and protein digestion and slightly raises stomach acidity. A German study found it extremely effective in curing indigestion and heartburn when volunteers were given gentian with small amounts of cayenne, ginger and wormwood. Gentian is also used to treat liver and spleen problems, and to promote menstruation. At times, its fever-lowering action has been considered superior to Peruvian bark. There is some evidence that it makes the body more sensitive to adrenalin and may indirectly stimulate more than appetite. It was once used externally to clean wounds.

In Chinese medicine *G. macrophylla* and *G. scabra* are used as clearing "heat and damp." It is used to treat digestive disorders, sore throat, headache and arthritis. Ayurvedic physicians have used it to treat fevers, venereal diseases, jaundice and other liver problems. [Gentian Root 1 fl. oz.](#)

TURMERIC

A powerful herb used in curry dishes, turmeric aids in the protection of the liver, which is a major center of digestion and detoxification in the body. Turmeric can also help with irritable bowel syndrome and gall bladder problems. [Turmeric](#)

MINERAL DEFICIENCIES

Interestingly, even though volatile sulfur compounds (VSC) cause a white tongue, not enough sulfur in the diet can cause a yellow coating on the back of the tongue! It can also cause dull hair, skin complexion deterioration, skin eruptions, abscesses, chronic oozing ulcers, deterioration of fingernails, decreased bacterial resistance, fatigue and pains in your extremities. Biological Sulfur is also a great antioxidant. Methyl Sulfonyl Methane (M-S-M) is a natural form of organic sulfur found in all living organisms. Sulfur is important in the body's production of connective tissue, such as cartilage, tendons and mucous membranes. [Biological Sulphur](#)

Besides causing a yellow coating, a potassium deficiency can lead to decreased blood sugar, confusion, anxiety, nervous system deterioration, depression, deterioration of memory, ear noises, acne, dry skin, granulation of eyelids, blistering skin, eczema, skin eruptions, warts, lack of sleep, digestion upset, gas, constipation, nausea, improper fat digestion, heart deterioration, muscular weakness, pains in extremities, fatigue, muscle cramps, numbness, tingling, paralysis, or faint/rapid pulse. The best way to treat potassium deficiency quickly is with a powder. One half teaspoon dissolved in almost any liquid will be rapidly absorbed. [Potassium Gluconate Powder](#)

TONGUE COATING ACCORDING TO TRADITIONAL CHINESE MEDICINE

Traditional Chinese Medicine (TCM) relies very heavily on the look of the tongue to determine the health of the entire body.

There is both a moist coating and dry coating. A healthy tongue coating is kept moist naturally by saliva. If the tongue coating is too moist and covered with transparent or semitransparent film of fluid, it is considered to be due to a spleen deficiency. It is characterized by greasy-glossy tongue coating in association with splenogastric signs of a stuffy chest, nausea and diarrhea.

A dry tongue coating usually indicates "heat syndrome." In the west, we would call this inflammation. A tongue coating that is so dry that looks rough, and feels dry or even prickly to the touch, is described as being "rough." It indicates damage to the body fluid due to extreme heat (perhaps dehydration). The moistness of the tongue coating depends upon the saliva secretion, viscosity and evaporation speed. The dryness of the tongue surface is most obvious sign to observe dehydration.

Most people in the West do not drink enough water and live on coffee, colas and other liquids instead. These massive doses of caffeine can cause damage to adrenal function as covered in the chapter on [Pigmented Tongue](#).

According to Traditional Chinese Medicine (TCM), a tongue can have either a thick coating or a thin coating. If the underlying tongue surface can be seen faintly, the tongue coating is regarded as thin, whereas a thick coating means that the tongue surface cannot be seen at all. The thickness of the tongue coating can indicate the level of the problem. A thin coating is considered less serious than a thick one. If the tongue coating thickens, the condition is getting worse. If the tongue coating thins, the condition is improving.

A thin white coating is actually considered a normal coating. A thick, white and glossy coating indicates cold damp or cold-phlegm. White and dry coating indicates that the pathogenic cold changes into heat. Thin, white and extremely dry coating indicates insufficiency of the body fluid.

A thick, white and greasy coating indicates phlegm-damp and is usually accompanied by sickly taste in the mouth, stuffy chest and poor appetite.

CHAPTER 20

TONGUE SPLITTING & PIERCING

VOLUNTARY TORTURE

For many of us who have experienced tongue problems like Geographic Tongue, Burning Tongue, Thrush, or Tongue Fissures, it is difficult for us to imagine someone doing anything to purposely harm or even potentially harm their tongue. Nevertheless, many people today are doing exactly that. Many are having their tongues pierced or even split!

Tongue piercing is the penetration of the tongue by a medical needle inside a plastic sheath. The needle is removed and the sheath left in place. A stainless steel barbell is then placed through the hole and the sheath removed.

Having a tongue piercing often causes swelling and requires the patient to eat soft foods for several days. Here is a story from a girl who got her tongue pierced.

The lady explained to me the basics of aftercare when looking after my piercing, just to make sure I was still happy to have it done. She told me to avoid alcohol for 24 hours, and stick to soft food (non-spicy) for a few days. She also warned me about the swelling and told me to take aspirin to keep it down. At this point I started getting worried. If a piercing took so much aftercare, surely it would be incredibly painful? According to the piercer, no.

She said that it would be a bit painful, but nothing unbearable. Assured in this knowledge, I rinsed my mouth out with the mouthwash provided, and sat down while she marked the dot on my tongue where the needle would go through. She then put the clamps on it (which didn't hurt, just felt like a little pinch) and pushed the needle through the bottom of my tongue, and out of the top, leaving in the plastic tube surrounding the needle. The first thing that sprung to mind was "Oh my ... that hurt!" My boyfriend Alex said "Ellie, you can squeeze my hand if you want". Silly boy. I squeezed a bit too hard, so I wasn't the only one in the room who was in pain. Next, I felt a tugging sensation, as the plastic tubing was pulled out and the bar pushed through. The little ball was screwed onto it, then the lady smiled and said "There, all done! Er... you'd better wash your mouth out, you're bleeding a bit." Luckily, with the tongue, there is usually an initial spurt of blood, then it quickly calms down. I rinsed my mouth out and spat in the sink.

"Not too bad, was it?" asked the piercer.

"Ih uggi urrg" I managed to reply. I really didn't want to move my tongue in any way, shape or form. The bar felt like a massive piece of scaffolding in my mouth. I was given a smaller bar in sterile packaging to either put in myself or have the piercer put in when the swelling had gone down, and a few minutes later, I was outside, sipping on icy water to numb my mouth.

It turned out that the piercer was right. My tongue was so sore, I couldn't eat solid food (I foolishly tried to eat chips later on). I had to take worrying amounts of aspirin just to be able to talk properly. Whenever I ate, I had to make sure I didn't catch the bar behind my teeth, or it would

really hurt. After a few days, I couldn't stand the longer bar any more. I took it out, and put the smaller one in, which was more comfortable. Unfortunately, during this time, my tongue developed a fetching yellow layer as a reaction to having a bit of metal shoved through it. Eventually, after two weeks, the pain subsided enough so that I didn't have to live off ice cream, soup and aspirin.

YELLOW COATING

It sounds like an experience that I wouldn't voluntarily go through! Notice the yellow coating as the tongue responds to the new stress caused by the piercing. Other problems that are also often associated with piercings are infection, chipping or cracking of teeth, dental abrasion, excess salivation, (that seems like a really sexy addition... slobbering all over because of a tongue piercing), bruising of the mucous membrane (called gingival) in the bottom of the mouth from the bottom of the tongue appliance.

In addition, pain, impaired speech, and difficulty in swallowing are common. The risk of infection is one of the more serious consequences because if not treated promptly it is possible that the result could be the permanent loss of taste and/or tongue mobility. The constant banging of a piece of metal against a particular tooth causes minute cracks to appear. These cracks begin to connect and finally pieces of the tooth eventually break off, resulting in larger and larger sections of the tooth falling off. Eventually this could result in the loss of the entire tooth. The repair of this could require a bridge or crown costing thousands of dollars.

GALVANIC RESPONSE

Another interesting problem that occurs is the creation of Galvanic currents (as mentioned in the chapter on [Burning Tongue](#)). In brief, electrical current is created by the combination of acid and metal. Those who suffer from Burning Tongue would certainly not voluntarily go anywhere near that one! Many dentists believe that people who get tongue piercings are not well enough informed before submitting to this procedure.

CHIPPED TEETH

One dentist said, "Before you adorn your tongue with jewelry, consider the potential risk to your teeth and the use of your tongue."

There is even talk in Michigan of banning the practice for health and safety reasons.

CHAPTER 21

SCALLOPED TONGUE (TOOTH MARKS AROUND EDGES) BEEFY TONGUE AND PALE TONGUE



SCALLOPED BEEFY TONGUE

A scalloped tongue is as it sounds, simply a tongue with scallops or ridges around the edges. This is often referred to as “tooth marks around the edges” and is sometimes considered to be the result of “the tongue being too big for the mouth.”

In the picture above, it almost looks like the indentations around the edges are the result of the tongue being squeezed between the upper and lower teeth.

If the tongue is oversized or “beefy,” doctors call it “macro-glossia” or “big tongue” in Latin. It can also be referred to as “tongue swelling.” Interestingly there are several specific vitamin and mineral deficiencies specifically related to these particular tongue issues. For scalloped tongue, one cause is malabsorption.

MALABSORPTION

If it is general malabsorption, as we’ve touched on earlier, it can be related to poor digestive terrain including a lack of probiotics, not enough digestive enzymes or acid insufficiency. If it is a specific vitamin or mineral that is being malabsorbed, that raises the question as to malabsorption of what?

There are a couple of key vitamins that can be related to scalloped tongue. The first is a Niacin (Vitamin B₃) deficiency. Well-respected doctor, Dr. Brownstein, has written several books on health and publishes a monthly health newsletter. He has written extensively on thyroid issues, finding that most Americans are deficient in key nutrients that promote thyroid health. This may be one reason that Americans have weight issues, since your thyroid helps regulate your metabolism.

IODINE

One of the keys to a healthy thyroid is enough iodine. A lack of iodine can cause many thyroid problems. One of Dr. Brownstein’s books is called, “[Iodine: Why you need it, Why you can't live without it.](#)” Another is called “[Overcoming Thyroid Disorders.](#)” He says that a beefy tongue and a scalloped tongue are both signs that either you need more iodine or you need your thyroid checked. If the iodine doesn’t help, you may need synthetic thyroid pills. “Iodine should be stored in your fat tissues, liver, heart, salivary glands, stomach cells, parts of the eye that deal with aqueous fluid and intraocular pressure, and even in specific brain cells.”

One way of getting more iodine is [Lugol's Solution](#). It is 4% Potassium Iodide and 2% Iodine. Many people have used it by putting 4 or 5 drops into water, tea, coffee, etc. Five drops are roughly equal to 12.5 mg of iodine. People have noted improvements in eczema, more energy and alertness and variety of other iodine deficiency symptoms.

Here are a few of their comments:

"I have had symptoms of low thyroid most of my life but the lab tests were always within "normal" limits, so I was never treated to relieve the symptoms. I have been taking this stuff - 2-3 drops 5-6 days a week for several months. My energy is up, my skin is clearer, and I am able to keep the 35 lb weight loss without counting every calorie. It worked for me because it is what my body really needed. I would recommend this product for sub-clinical low thyroid conditions".

"I have a number of hypo[thyroid] symptoms but am not interested in going on conventional medicine. Having taken Lugol's for about two weeks I find my basal body temperature has gone from mid-96s to 98.6 (what a cliché!) Also, the ice-cold feet I bothered my husband with at night have normalized. I also find that insomnia that was keeping me up until four a.m. or later has abated, now I'm getting tired around ten p.m."

"I have spent over \$1000 in supplements trying to combat what I think was candida over the last year or so. My Duke doctor would not help me with candida. Within 30 minutes of taking Lugol's, I had more energy than I have had in years. I have been taking it about 6 days now. I have way more energy, much clearer thinking, skin that has not healed in months is healing or totally healed on some areas. I feel great after feeling like crap for several years. For me, this is the best supplement on the planet by far."

"I started using three drops of the iodine four weeks ago. Nothing was obvious at first, but then I realized that I had filed my nails once a week for the last three weeks. Usually my nails peeled or broke before ever needing to be filed down. They are strong and have not peeled since. I also noticed that the counter which was always full of hair when done blow drying was now clear.....I had no expectations for this product and was pleasantly surprised."

"I've been taking prescription thyroid medicine for years and according to the doctors my thyroid is within normal levels. I recently decided to try Lugol's after hearing a talk by Dr. David Brownstein. I take approximately 20 to 30 drops throughout the day mixed with tea. This product has completely changed my life. I am able to finally sleep at night, and was able to stop taking my prescription Ambien cold turkey (which I had been completely dependent on). I have so much more energy, my hands and feet aren't cold anymore, my skin has cleared up, my problems with depression/anxiety are greatly improved, and the brain fog I was experiencing has lifted considerably. The biggest miracle I've experienced is my 3 year history of almost daily chest pain, which had sent me to the ER on numerous occasions, has almost completely disappeared. I feel I have my life back."

DON'T PUT IT ON YOUR TONGUE

"I noticed from some other reviews that some people were putting the drops directly on their tongues. Of course that is going to taste awful. Put the drops in your morning drink (coffee, or whatever) and you won't even notice it."

OTHER IODINE DEFICIENCY SYMPTOMS

During the 19th century, iodine was considered the universal treatment: “If nothing else works, try iodine” was the adage. And because there is still a widespread deficiency that is probably still true today.

There is a wide variety of symptoms that can result from iodine deficiency including:

fatigue	dry skin	menstrual problems
hypertension (high blood pressure)	cold intolerance (cold hands and feet, low basal temperature)	inability to concentrate (or brain fog)
depression	constipation	bone thinning
hair loss	concentration difficulties	poor memory
hoarseness	muscle cramps	weight gain (unable to lose)
nervousness	irritability	infertility
breast, ovarian, and skin cysts	poor digestion	goiter
dementia	glaucoma	thyroid disease

Cretinism—a cause of deafness and mental impairment of children—is caused by an iodine deficiency during pregnancy and some evidence even states that there may be a relationship to Parkinson’s disease.

Evidence has been found that iodine deficiency may harm pituitary-adrenal function in rodents.

According to Dr. Robert J. Rowen,

"While iodine will help the thyroid increase the production of hormone where necessary, it also inhibits over-release from the gland by giving thyroid enzymes what they want. These iodine-seeking enzymes that attack thyroid membranes can be normalized when they get the iodine they need. This old information is terrific news for the many people (usually women) who have been told to have their thyroid removed to end hyperthyroidism. These draconian measures ensure the patient will have to rely on prescriptive thyroid hormone for the rest of their life. But iodine can completely solve the problem."

[Lugol's Solution](#) . [Source Naturals Potassium Iodide 32.5mg Tablets](#)

EDEMA

Another thing that may cause tongue swelling is edema. Edema is an abnormal accumulation of fluid beneath the skin. In common terms it is “retaining water.” This can often be seen as “swollen ankles.” It is considered a result of the lymph system not circulating the bodily fluids properly. It can be related to not enough exercise; if you sit too long your ankles can swell. However, you wouldn’t think that would affect your tongue. Edema can be related to a Niacin (Vitamin B₃) deficiency as well as a B-1 deficiency.

PALE TONGUE

A pale tongue is different from a white coated tongue or a thrush-coated tongue. In this case, the tongue itself is a very pale pink almost white. In the same way that a sickly pale person is almost “white as a ghost.”

In a recent show, TV celebrity host Dr. OZ did a show on tongues. Most of it was pure showmanship but he did provide a couple of nuggets of good information. One was that a pale tongue could be the sign of anemia. Anemia is often considered simply not enough iron but it could also be related to not enough B-12. Interestingly, several other vitamins can also be related to anemia and in many cases you would never have guessed that there would be a correlation. Biotin, Folic acid, B-6 and in fact the entire B-complex can be related to anemia. Nevertheless, the real surprise in my mind is vitamin C.

In the following chapter, we will look at a list of known vitamins, their function and how they relate to tongue problems. In fact, we will look at vitamins from several different angles.

First, we will look at the specific symptoms a person with a specific vitamin deficiency might exhibit. We all know that a severe vitamin C deficiency will cause rickets but long before the final stages of rickets you will see bleeding gums, loose teeth, depression, malaise, tiredness, easy bruising, impaired wound healing, irritability, and joint pain.

Pellagra, Rickets and Beriberi are other diseases with vitamin deficiencies as their sole cause. When the proper vitamins are added to their diet, it eliminated 100% of the disease. For instance, just as the lack of Vitamin C brings scurvy, the lack of vitamin B-3 (niacin) brings pellagra, a lack of B-12 anemia, B-1 Beriberi and a lack of D rickets. Some even believe that a lack of Vitamin B-17 (Laetrile) brings cancer. For more information see: [The Nature of Cancer](#)

One way to use the information in the next chapter is to read the lists of symptoms and use them as an indicator of possible deficiencies, i.e., if you have cold feet, it might be an iodine deficiency.

In addition, I have provided a list of tongue problems and the related vitamin deficiencies so you can look at it from the other side of the coin. Therefore, if you have Cheilosis or “cracked lips and corners of the mouth” you can look and see that possible causes are Vitamins B2, B6, and folic acid deficiencies. Then you can go to the previous vitamin list and see if you have any of the other symptoms of B2, B6 or folic acid deficiency.

Finally, I also provide a table of vitamin sources. This table lists the vitamin and its natural food source. Therefore, if you find that you aren’t getting enough iron, you might try adding more spinach or liver to your diet. This table also lists the body part affected, the body function facilitated and the deficiency symptoms all in one easy place. So although the tables provide the same information, it is presented in different ways. I hope that this will enable you to find what you are looking for, depending on which direction you are coming from. Also simply reading all the ways may allow a specific benefit or problem to jump out at you where you may not have noticed it coming from a different angle.

So let’s move on to the specific vitamin information.

CHAPTER 22

VITAMIN DEFICIENCIES THAT CAN CAUSE TONGUE AND MOUTH PROBLEMS

It is interesting to note that back in 1965 a nutritionist named Adelle Davis wrote several books on health and healing with vitamins. The best known of her books was [Let's Get Well](#). It is an excellent book and considered a classic on nutrition, although slightly dated now. In it, she documented sixteen tongue or mouth issues that were directly related to vitamin deficiencies.

VITAMIN DEFICIENCIES CAN CAUSE TONGUE PROBLEMS

By simply correcting these deficiencies, often we can relieve the major symptoms of tongue problems. You might be asking if a simple vitamin deficiency can cause these problems why doesn't my Doctor know about it? That is a very good question!

Did you know that during the entire four years of medical school, doctors only spend a day or two on vitamins! Can you believe that? Only one or two days on a topic that has been proven to be vital to health!

Vitamins relate to health, doctors deal with disease! Unfortunately, that's the way it is.

We are eating more fast food with all of the processing and preservatives, it is not surprising that the ailments related to vitamin deficiencies are increasing!

I have demonstrated this in myself many times. During surgery, the portion of my intestines that absorbs Vitamin B₁₂ was removed. I have absolutely no way of absorbing enough Vitamin B₁₂ normally. Therefore, I am guaranteed to develop a deficiency, if I do not take injections. That makes me a perfect test case for the results of a lack of Vitamin B₁₂.

There were several doctors present at my surgery but interestingly, not one of them mentioned that I would need to supplement my Vitamin B₁₂ intake with injections, even though they had just removed the only source of my absorbing this essential vitamin! It was only after I started complaining of the symptoms of deficiency that they recommended vitamin injections.

Why didn't they tell me that I would need this supplementation before I developed severe deficiency symptoms? The answer is simple; vitamins are not high on most doctors' list of important things... until you develop symptoms of severe lack.

Once you have a deficiency problem, it is no longer a health maintenance issue; it is now a disease, so it shows up on their RADAR. I mention this not to fault doctors, only to say that if your problem is a vitamin deficiency, doctors may not even be looking for it. Worse yet, if you try to take pills to correct the problem, your body may not even absorb them (that may be why you have the deficiency in the first place). Injectable vitamins may be the only ones you can absorb.

The symptoms of B₁₂ deficiency, by the way, are bald patches on the tongue and it looks very much like Geographic Tongue, so if you have been diagnosed with Geographic Tongue you might want to look into a

possible vitamin deficiency. For each of the tongue problems I will list the possible vitamins that may be causing the problem.

Throughout my research, I found numerous references to vitamins and an amazing correlation between symptoms of vitamin deficiencies and tongue problems. Some were specific references that stated clearly that the symptoms of a certain deficiency like Folic acid were a sore tongue.

HOW VITAMINS WORK

When you eat proteins, carbohydrates or fats, they are combined with other substances to generate energy and build body tissue. These chemical reactions require enzymes produced from certain vitamins, and they take place in specific parts of the body.

There are two different types of vitamins:

- Water-soluble vitamins like B vitamins and Vitamin C
- Fat-soluble vitamins like vitamin A, D, E, and K

Water-soluble vitamins, as their name implies, are dissolved by water and are then absorbed through the walls of the intestine where they enter the blood and are put to use. B vitamins combine with proteins to form an enzyme. Enzymes trigger chemical reactions that transfer energy from food to the body.

Water-soluble vitamins are not able to be stored in the body in any quantities and the excess is quickly lost in the urine. Obviously, if water-soluble vitamins can't be stored, you need to replace them daily.

Fat-soluble vitamins, on the other hand, are dissolved in fats and can be absorbed by the intestine. Interestingly, the blood does not carry them. They are carried by the lymph system to the body instead. Fat-soluble vitamins are highly specialized, each with a specific purpose. Some are involved in maintaining the structure of cell membranes.

Because the body can store fat-soluble vitamins, if you take too much it can become toxic. Vitamins A and D are stored in the liver, while vitamin E is stored primarily in body fat.

Most vitamins work in combination with each other to regulate several processes within the body. A vitamin deficiency can slow or even stop certain metabolic reactions.

The Vitamin B complex includes B₁ (thiamine), B₂ (riboflavin), niacin (nicotinic acid), B₆, B₁₂ (cyanocobalamin or methylcobalamin), folic acid, biotin and Pantothenic acid. Vitamin B₁ helps the body convert carbohydrates into energy and helps your body burn proteins and fats.

SPECIFIC VITAMIN DEFICIENCY SYMPTOMS

In this section, we will list the vitamin and any functions associated with it or a symptom of deficiency.

VITAMIN A

A Vitamin A deficiency results in acne, loss of a sense of smell (anosmia), birth defects, dry hair or loss of hair (alopecia), fatigue, slow growth, infections, infertility, insomnia, night blindness, weight loss and dry skin.

One of the symptoms of a Vitamin A deficiency is hyperkeratosis, which is a generic term for many forms of skin thickening. This includes things like corns, calluses, warts etc. But as it relates to mouth and tongue problems, it also includes **Lichen planus**, a white lacy patch inside the mouth, and **chronic eczema**, which has been associated with **Geographic Tongue**. [Beta Carotene 100](#), [Vitamin A](#)

B-COMPLEX CONTAINING THE “B-VITAMINS”

B Vitamins are used in conjunction and should preferably be taken together, unless a deficiency of a specific B-vitamin is determined. [Vitamin B Complex](#)

LIST OF B VITAMINS

- [Vitamin B1](#) (thiamine)
- [Vitamin B2](#) (riboflavin)
- [Vitamin B3](#) (niacin or niacinamide)
- [Vitamin B5](#) (pantothenic acid)
- [Vitamin B6](#) (pyridoxine, pyridoxal, or pyridoxamine, or pyridoxine hydrochloride)
- [Vitamin B7](#) (biotin)
- [Vitamin B8](#) (Inositol)
- [Vitamin B9](#) (folic acid)
- [Vitamin B10](#) (PABA)
- [Vitamin B12](#) (various cobalamins; commonly cyanocobalamin in vitamin supplements)

VITAMIN B₁ (THIAMINE)

A Vitamin B₁ deficiency harms the functioning of gastrointestinal, cardiovascular, and the nervous system. A severe deficiency can cause several diseases including Beriberi and Wernicke-Korsakoff syndrome (often seen in alcoholics). General symptoms include loss of appetite, brain atrophy (senility), confusion, constipation, depression, labored breathing (dyspnea), digestive upset, fatigue, irritability, memory loss, muscle atrophy, nervousness, numbness in the hands and feet, extreme sensitivity to pain, heart palpitations, poor coordination, water retention (edema) and weakness.

Since the digestive system includes the tongue, it is possible that a Vitamin B₁ deficiency can be indirectly related to tongue problems.

VITAMIN B₂ (RIBOFLAVIN)

A Vitamin B₂ deficiency results in and a dry, greasy, scaly inflammation of the skin, hair loss, blurred vision and cataracts, depression, dizziness, itchy burning red eyes, slow growth, pancreatic atrophy and fibrosis.

Mouth and tongue related problems include reddening of the lips with cracks at the corners of the mouth, inflammation of the tongue, and Geographic Tongue.

VITAMIN B₃ (NIACIN)

A Vitamin B₃ deficiency leads to pellagra, a disease of skin lesions, gastrointestinal problems and nervous symptoms. Niacin aids in the metabolism of carbohydrates.

Other deficiency symptoms are anorexia, nausea, canker sores, confusion, depression, dermatitis (localized scaly), dark pigmented skin, diarrhea, digestive problems (dyspepsia), crying jags, emotional upset, fatigue, halitosis (bad breath), headaches, insomnia, irritability, limb pains, memory loss, muscular weakness, skin eruptions or eczema.

Several of the problems on this list could be related to tongue and mouth problems including skin problems, digestive problems, canker sores and bad breath.

VITAMIN B₅ (PANTOTHENIC ACID)

A Vitamin B5 deficiency can appear as abdominal pain, hair loss, burning feet, poor coordination, depression, eczema, faintness, fatigue, low blood pressure, infections, insomnia, muscle spasms, nausea and vomiting, nervousness, unusual heart rhythm (tachycardia) or weakness.

Pantothenic acid promotes metabolic reactions essential for growth. Deficiency can lead to growth failure, skin lesions and graying of the hair. The one item in this list that might relate to tongue and mouth problems is eczema, which has been correlated with Geographic Tongue.

VITAMIN B₆ (PYRIDOXINE)

Vitamin B₆ is involved in the metabolism of proteins, carbohydrates and fats. No human disease has been found to be caused by a deficiency of this vitamin. However, the following symptoms have been found related to a deficiency in Vitamin B₆: anemia, anorexia and nausea, arthritis, painful cracking on the corners of the mouth (cheilosis), depression, dizziness, facial oiliness, fatigue, hair loss, impaired wound healing, irritability, nervousness, neurological symptoms, pink eye (conjunctivitis), seizures, stunted growth and weakness.

Many of the symptoms are very similar to a deficiency in other B vitamins. In addition, Geographic Tongue and canker sores (stomatitis) are commonly the result of a Vitamin B₆ deficiency. [Pyridoxine P5P 60C](#), [B-6 Liquid Vitamin B-6, 200 mg, 4 fl oz.](#), [Coenzymated B-6 Sublingual 25mg Tablets 60 Each](#)

VITAMIN B₇ (BIOTIN)

Vitamin B₈ helps metabolize fats and utilize carbon dioxide. A biotin deficiency can result in depression, dermatitis, anemia, anorexia, nausea, vomiting, hair loss, anemia, fatigue, high cholesterol, diabetes, insomnia, muscle pain, weakness and pallor. Along with vitamin B₅, vitamin B₈ is vital to the skin and hair. Very sensitive to heat, it helps alleviate dry skin and tongue problems. Biotin is essential to metabolize carbohydrates and fats. It is non-toxic and has no side effects. Raw egg whites contain "avidin," which slows or hampers the assimilation of biotin.

Tongue related symptoms of deficiency include inflammation of the tongue and a pale smooth tongue.
[Biotin 5mg 100C](#), [Liquid Biotin Extract](#)

VITAMIN B₈ (INOSITOL)

Inositol is a 'second messenger', triggering the release of calcium in cells. It also plays a role in the central nervous system. Vitamin B8 deficiency can result in weak muscles, muscle cramps, lack of appetite, fatigue, body pains, pricking sensation in the skin, hair loss, premature graying of hair, dandruff, constipation, eczema, high cholesterol, seborrhea, anemia, heart diseases, lung diseases, confusion, tingling in hands and feet, drowsiness, and hallucination. Promotes healthy skin and nails, helps balance blood sugar levels, and regulate weight. Also helps in the production of red blood cells and works with folic acid and B-12. [Inositol](#)

VITAMIN B₉ (FOLIC ACID)

Folic acid works closely with vitamin B₁₂ and in the formation of red blood cells. Folic-acid deficiency can cause "folic-acid-deficiency anemia." Symptoms include diarrhea, and stomach and intestinal ulcers. Also anemia, anorexia, birth defects (spinal bifida, Hydroec-cephalacoels), GI upsets, slow growth, headaches, insomnia, memory loss, paranoia, vitiligo (skin discoloration), or weakness.

Tongue related symptoms include sore tongue, cracks at the corners of the mouth, Geographic Tongue, and intestinal problems. [Folic Acid-800 - 100 Capsule - 800 mcg](#), [Folic Acid & B-12, 100 lozenges](#), [Liquid Folic Acid Extract](#), [NOW B-12 LipoSpray 1000 mcg/spray with Folic Acid and TMG - 2 oz.](#)

VITAMIN B₁₀ PARAAMINOBENZOIC ACID (PABA)

PABA was once considered a vitamin but later studies concluded it wasn't a true vitamin but rather an amino-acid and a component of folic acid. It has been used in sunscreen and to treat vitiligo a condition that causes discoloring of the skin. It has been used to help some women who had difficulty becoming pregnant. May help restore hair color, assists in the formation of red blood cells, acts as a coenzyme in the metabolism of protein, helps maintain intestinal flora. PABA deficiency results in constipation, depression, headache, irritability, fatigue, GI disorders and graying hair. As I have said before, gastrointestinal disorders can be related to tongue problems.

VITAMIN B₁₂

B₁₂ is known to aid in the development of red blood cells. It also works in the gastrointestinal tract, the nervous system and the bone marrow. A deficiency can result in a red tongue, sore tongue, tingling feet, weakness, weak pulse, paleness, numbness in feet, pernicious anemia, dandruff, decreased blood clotting, slower reflexes, depression, difficulty in swallowing, fatigue, heart palpitations, memory problems and menstrual problems.

Symptoms associated with a vitamin B₁₂ deficiency are anemia, birth defects, constipation, depression, dizziness, digestive upset, fatigue, Geographic Tongue, headache, irritability, moodiness, numbness, palpitations, psychosis, insufficient Hydrochloric acid in the stomach (achlorhydria), labored breathing, sensitive skin, smooth tongue and spinal cord degeneration. Deficiencies can be overlooked when anemia

is treated with extra folate. This deficiency is most common in strict vegetarians who avoid eating any animal products. [Folic Acid & B-12, 100 lozenges](#), [NOW B-12 LipoSpray 1000 mcg/spray with Folic Acid and TMG - 2 oz.](#), [Natural B-12 Sublingual Vitamin 2500mcg, Tablets - 50 ea](#)

Some experts claim that the "Methyl" form of cobalamin (B-12) is better than the more common "Cyano" form because of its relationship to cyanide. [Methylcobalamin 1 mg Tablets 60 Each](#), [B-12 Methylcobalamin 5000mcg 60 Lozenges](#)

VITAMIN C

A deficiency of this common vitamin can result in bleeding gums, loose teeth, depression, malaise, tiredness, easy bruising, impaired wound healing, irritability and joint pain. [Vitamin C](#)

VITAMIN D

Symptoms include diarrhea, insomnia, myopia, nervousness, softening of the bones (osteomalacia), and rickets.

Tongue and mouth symptoms include burning in mouth and throat. [Natural Vitamin D 400 IU, Tablets - 100 ea](#), [Cod Liver Oil A&D, 250 softgels](#)

VITAMIN E

Vitamin E is closely associated with skin healing (reducing scar tissue) and other skin problems (dermatitis). A deficiency results in hair loss (alopecia), an absence of neurological reflexes such as the knee jerk reaction called (areflexia), walking gait disturbances, infertility, malabsorption of other vitamins and nutrients, muscular dystrophy, eye paralysis (ophthalmoplegia), problems with the ability to know if your arm is above your head or hanging by your side (proprioception), RBC fragility and vibratory sense dysfunction. (Vitamin E Oil can be used directly on cuts to eliminate or reduce scars). [Vitamin E](#)

VITAMIN K

A Vitamin K deficiency results in poor clotting time and osteoporosis. [Liqui-K Liquid Potassium, 99 mg, 16 fl oz](#), [VITAMIN K](#)

MULTIVITAMIN

Supplementing all the Vitamins individually is difficult although I personally take several individual vitamins I also try to cover all the bases by taking a multi too. [Multi Vitamin](#)

ESSENTIAL FATTY ACIDS

A deficiency can result in acne, alopecia (hair loss), arthritis, endocrine glands problems, diarrhea, dry brittle hair and skin, eczema, degeneration of the liver, gall stones, growth retardation, immunologic dysfunction, impaired wound healing, infertility, kidney dysfunction, cystic fibrosis, and anorexia. [Essential Fatty Acids](#)

In the following section, the vitamin sources and deficiency symptoms are presented in table form.

TABLE OF VITAMIN SOURCES AND DEFICIENCY SYMPTOMS

VITAMIN	NATURAL SOURCES	BODY PARTS AFFECTED	BODY FUNCTIONS FACILITATED	DEFICIENCY SYMPTOMS
A	apricots, asparagus, beet greens, blue green algae, broccoli, butternut squash, cantaloupe, carrots, cheese, dandelion greens, eggs, fish, fish liver oil, green and yellow fruits and vegetables, green olives, mango, milk products, papaya, parsley, prunes, red peppers, snap beans, spirulina, spinach, sweet potatoes	bones, eyes, hair, immune system, skin, soft tissue, teeth	antioxidant, body tissue reparation and maintenance infection resistance), nutrition of cornea, permeability of membranes, RNA synthesis, sex hormone synthesis (fertility/impotence), thyroid and adrenal gland stimulant, visual purple production (necessary for night vision)	acne, allergies, anorexia, appetite loss, blemishes, blindness, colds, dry hair, baldness, eye sties, fatigue, insomnia, impaired growth, itching burning eyes, loss of smell, night blindness, rough dry skin, sinus trouble, soft tooth enamel, steroid synthesis reduction, birth defects, Hyperkeratosis
B COMPLEX	broccoli, brewer's yeast, brown rice, cabbage, cauliflower, dandelion greens, dried beans, eggs, green leafy vegetables, kelp, milk, peanut butter, salmon, seed germs, wheat germ, whole grains, yogurt (produces good intestinal bacteria needed for synthesis of B vitamins)	body cells, eyes, gastrointestinal tract, hair, liver, mouth, nervous system, skin	energy metabolism (carbohydrate/fat/protein), gastrointestinal tract muscle tone maintenance, organ detoxifier	acne, anemia, constipation, cholesterol (high), digestive disturbances, fatigue, hair (dull, dry, falling), insomnia, skin (dry, rough)

<p>B1 Thiamine</p>	<p>almonds, asparagus, avocado, brewer's yeast, brown rice, dried apricots, dry beans and peas, egg yolk, fish, lean pork, legumes, nuts, peanuts, poultry, seeds, soybeans, wheat germ, whole grains, wild rice, sunflower seeds (hulled)</p>	<p>brain, ears, eyes, digestive system, hair, heart, nervous system</p>	<p>appetite stimulant, blood building, carbohydrate metabolism, circulation, digestion *hydrochloric acid production), energy, growth, learning capacity, muscle tone maintenance of intestines/ stomach/ heart, pain inhibitor</p>	<p>appetite loss, beriberi, constipation, confusion, depression, digestive disturbances, edema, fatigue, insomnia, irritability, memory loss, nervousness, numbness of hands/ feet, pain and noise sensitivity, pains around the heart, palpitations, shortness of breath, sonophobia, weakness</p>
<p>B2 Riboflavin</p>	<p>brewer's yeast, brown rice, dried beans, eggs, fish, fruit, green leafy vegetables, legumes, milk, miso, nuts, poultry, seeds, soy foods (tempeh, tofu), soymilk, whole grains</p>	<p>adrenals, blood cells, digestive/enzymatic/and glandular systems, eyes, hair, nerves, skin, soft body tissue</p>	<p>antibody and red blood cell formation, cell respiration, iron assimilation, metabolism of carbohydrate/fat/protein</p>	<p>blurred vision, cataracts, corner of mouth cracks and sores, dizziness, itching/burning eyes, light sensitivity and eye fatigue, oily skin, poor digestion, red sore tongue, retarded growth, hair loss, cheilosis, depression, geographic tongue,</p>
<p>B3 Niacin</p>	<p>beans, brewer's yeast, dates, dried figs, eggs, green leafy vegetables, milk products, mushrooms, peas, peanuts, poultry, prunes, seafood, whole grain breads and cereals</p>	<p>brain, heart, liver, nerves, skin, soft tissue, tongue</p>	<p>circulation, cholesterol level reduction, growth, histamine activator, hydrochloric acid production, metabolism of carbohydrate/fat/protein, sex hormone production</p>	<p>appetite loss, bad breath, canker sores, confusion, depression, dermatitis, diarrhea, dyspepsia, crying jags, fatigue, headaches, indigestion, insomnia, irritability, limb pains, memory impairment, muscular weakness, nausea, nervous disorders, skin eruptions</p>

Pantothenic Acid B Complex (vitamin B₅)	beans, bran, brewer's yeast, broccoli, brown rice, carrots, cauliflower, cheese, eggs, egg yolks, fish, peas, legumes, lima beans, mushrooms, oats, peanuts, royal jelly, salmon, soybeans, spinach, walnuts, wheat, wheat germ, whole grains	adrenal glands, digestive tract, immune system, nerves, skin	antibody formation (detoxifier), antihistamine action, carbohydrate/ fat/ protein conversion (energy), cholesterol synthesis, cortisone production, growth stimulation, stress tolerability, vitamin D utilization	abdominal pains, burning feet, fainting sensations, fatigue, hair loss, impaired muscular coordination, depression, eczema, insomnia, intestinal disorders, irritability, lowered blood pressure, infections, muscle cramps, nervousness, nausea, premature aging, rapid pulse, weakness
PABA Para Aminobenzoic Acid	blackstrap molasses, bran, brewer's yeast, eggs, milk, rice, wheat germ, whole grains	glands, hair, intestines, skin	blood cell formation, hair pigmentation, intestinal bacteria activity, protein metabolism	adrenal exhaustion, constipation, depression, digestive disorders, fatigue, headaches, irritability, gray hair, stress
B₆ Pyridoxine	avocado, bananas, blackstrap molasses, blueberries, brewer's yeast, brown rice, cabbage, cantaloupe, crab, fish, green leafy vegetables, halibut, melons, mushrooms, peanuts, prunes, raisins, soybeans, soy flour, walnuts, whole grains	blood, central nervous system, muscles, skin	antibody formation, carbohydrate absorption, DNA and RNA synthesis, fat and protein utilization (weight control), hemoglobin and hydrochloric acid production, magnesium and linoleic acid function, sodium/ potassium balance (nerves) tryptophane conversion (niacin)	acne, anemia, arthritis, appetite loss, cheilosis , conjunctivitis, depression, dizziness, edema (water retention), facial oiliness, fatigue, hair loss, Geographic Tongue , infant convulsions, impaired wound healing, irritability, learning disabilities, nausea, nervousness, sleepiness, sore lips and tongue , seizures, stomatitis, stunted growth, weakness

<p>B₁₂ Cobalamin</p>	<p>beef, eggs, crab, fish, mackerel, milk and milk products, oysters, pork, salmon</p>	<p>liver, nerves, red blood cells</p>	<p>appetite stimulation, blood cell formation, cell longevity, healthy nervous system, iron absorption, metabolism of carbohydrate/fat/protein, normal energy levels, protection of liver from toxins</p>	<p>appetite loss, birth defects, constipation, dizziness, geographic tongue, moodiness, headache, diminished reflex responses, fatigue, irritability, memory impairment, mental depression and confusion, nervousness, pernicious anemia, unpleasant body odor, walking and speaking difficulties, weakness (arms/legs), psychosis, spinal cord degeneration</p>
<p>C Ascorbic Acid</p>	<p>most all fresh fruits and vegetables, acerola cherries, alfalfa sprouts, apricots, asparagus, black currents, cantaloupe, cauliflower, citrus fruits, green vegetables, guava, mango, mustard greens, oranges, papaya, salmon, strawberries, tomatoes</p>	<p>adrenal glands, blood, bones, capillary walls, cells, connective tissue (skin/ligaments/bones/gums), heart, mucous membranes, nervous system, teeth</p>	<p>antioxidant, anti-stress, burn and wound healing, collagen production, detoxification, digestion, fine bone and tooth formation, iodine conservation, iron absorption from food, pain reduction, red blood cell formation (hemorrhaging prevention), shock and infection resistance (colds), vitamin protection (oxidation)</p>	<p>anemia, bleeding gums, breath shortness, capillary wall ruptures (bruise easily), dental cavities, low infection resistance (colds), muscle degeneration, nosebleeds, poor digestion, stress, weakened cartilages, depression, easy bruising, impaired wound healing, irritability, joint pain.</p>
<p>Bioflavonoid Citrin Rutin</p>	<p>apricots, cherries, blackberries, buckwheat, grapefruit, grapes, lemons, oranges, papaya, pepper, plums, rose hips</p>	<p>blood, capillary walls, connective tissue (skin/gums/ligaments/bones), red blood cells, teeth</p>	<p>blood vessel wall maintenance, bruising minimization, capillary strength maintenance, cold and flu prevention</p>	<p>blood shot eyes, same as vitamin C (especially tendency to bruise or bleed easily)</p>

Biotin B Complex	almonds, bananas, brewer's yeast, egg yolk, legumes, milk, mushrooms, peanuts, raisins, walnuts, whole grains	bone marrow, genetic system, glands, hair, metabolic system, muscles, skin	cell growth, fatty acid production, metabolism of carbohydrate/fat/protein, vitamin B utilization	depression, fatigue, insomnia, muscular pain, nausea, nervousness, Alopecia, Anemia, Anorexia, Hypercholesterolemia, Diabetes, weakness, dry grey skin, Pale smooth tongue
Choline B Complex	bran, brewer's yeast, eggs, fish, green leafy vegetables, lecithin, legumes, nuts, seeds, soybeans, wheat germ	adrenal glands, autonomic nervous system, brain, cardiovascular system, gall bladder, hair, kidneys, liver, thymus gland	lecithin formation, liver and gallbladder regulation, metabolism of cholesterol/ fats, nerve transmission	bleeding stomach ulcers, growth problems, heart trouble, high blood pressure, impaired liver and kidney function, intolerance to fats
Inositol B Complex	brewer's yeast, citrus fruits, lecithin, milk, nuts, seeds, spinach, sprouts, vegetables, wheat germ, whole grains	brain, hair, heart, intestines, kidneys, liver, muscles	artery hardening retardation, cholesterol reduction, fat emulsification, hair growth, lecithin formation, metabolism of cholesterol/fat	Alopecia, cholesterol (high), constipation, eczema, eye abnormalities, hair loss
Folic Acid	beets, boysenberries, brown rice, cabbage family, cantaloupe, citrus fruits, eggs, green leafy vegetables, haddock, halibut, milk products, oyster, salmon, seafood, soybean sprouts, soy flour, spinach, tuna	blood, glands, liver	appetite stimulation, brain function, cell growth and reproduction, circulation, DNA and RNA production, hydrochloric acid production, liver performance, nucleic acid formation, protein metabolism, red blood cell formation	anemia, anorexia, apathy, birth defects, geographic tongue , digestive disturbances, graying hair, growth problems, insomnia, tongue inflammation , memory impairment, headaches, insomnia, paranoia, vitiligo

<p>D</p>	<p>bone meal, butter, egg yolks, fish liver oils, herring, sardines, sunlight</p>	<p>bones, heart, kidney, nervous system, skin, teeth, thyroid gland</p>	<p>calcium and phosphorus metabolism (bone formation), heart action, nervous system maintenance, normal blood clotting, normal growth in children, skin respiration</p>	<p>brittle and fragile bones, burning mouth and throat, diarrhea, insomnia, irregular heartbeat, low blood calcium, myopia, nervousness, pale skin, poor metabolism, rickets, sensitivity to pain, soft bones and teeth</p>
<p>E Tocopherol{XE “Vitamin E”}</p>	<p>almonds, asparagus, bran, brown rice, butter, cucumber, dark green vegetables, eggs, fruits, herring, kale, nuts, peanuts, seeds soybeans, unrefined cereals, vegetables oils, wheat germ and oil, whole grains, mackerel, hazelnuts</p>	<p>arteries, blood vessels, heart, lungs, nerves, pituitary gland, skin</p>	<p>aging retardation, anticlotting factor, antioxidant, blood cholesterol reduction, blood flow to heart, capillary wall strengthener, circulation, diuretic, fertility aid, lung protection (antipollution), muscle and nerve maintenance, potency (males), toxin neutralizer, speeds healing, utilization of oxygen (energy)</p>	<p>enlarged prostate gland, gastrointestinal disease, hair (dry, dull or falling out), impotency, miscarriages, muscular wasting, muscle weakness, sterility, Areflexia, dermatitis, gait disturbances, malabsorption, muscular dystrophy, ophthalmoplegia, proprioception problems, RBC fragility</p>

<p>Unsaturated Fatty Acids</p>	<p>black currant seed oil, cod liver oil, evening primrose oil, lecithin, linseed oil, unsaturated fish oils (omega 3 fatty acids), vegetable oils (canola, safflower, soy, corn), wheat germ, sunflower seeds</p>	<p>cells, glands, (adrenal, thyroid), hair, mucous membranes, nerves, skin</p>	<p>artery hardening prevention, blood coagulation, blood pressure normalizer, cholesterol destroyer, glandular activity, growth facilitator, precursor of prostaglandins, vital organ respiration</p>	<p>acne, allergies, arthritis, diarrhea, dry skin, dry brittle hair and loss, eczema, endocrine problems, gallstones, nail problems, underweight, varicose veins, liver degeneration, slow growth, immune problems, impaired wound healing, infertility, kidney problems, Xerosis, cystic fibrosis, anorexia.</p>
<p>Vitamin K</p>				<p>Poor clotting, osteoporosis</p>

CHAPTER 23

THE OFTEN OVERLOOKED MINERAL DEFICIENCY

Mineral deficiencies have serious consequences but are often overlooked. People regularly take vitamin supplements but it is much less common to supplement minerals. The following is a list of some of the symptoms of mineral deficiencies and conversely the functions those minerals can perform when present in sufficient quantities.

MINERAL FUNCTIONS AND DEFICIENCY SYMPTOMS

ANTIMONY

- Effective against blood flukes

BISMUTH

Deficiency symptoms:

Ulcers [Gastromycin with Bismuth Salts, 150 capsules](#)

BORON

- Aids in efficiently using calcium and magnesium
- Essential for bone metabolism
- [Boron](#)
- Aids proper endocrine function
- Protects against calcium loss from bones (Osteoporosis)

CALCIUM

High protein diets increases need for calcium

Deficiency symptoms:

- Arthritis
- Back pains (sciatica, disc problems)
- Bell's Palsy
- Bone spurs
- Brittle bones and fingernails
- Calcium deposits
- Eating Paint (Pica)
- Eczema
- High Blood Pressure
- Hyperactivity
- Insomnia
- Irritability
- Kidney stones
- Mental problems (Depression, Delusions, unable to think clearly)
- Muscle twitching and cramps
- Nervousness
- Numb limbs
- Panic attacks
- Periodontal disease - receding gums (osteoporosis of facial bones and jaw bones)
- PMS
- Rickets

- Slow growth
- Tooth decay

[Calcium](#)

CESIUM

- Cancer aid; cesium enters cancer cell and produces alkaline condition

CHROMIUM

Deficiency symptoms:

- ADD/ADHD
- Anxiety
- Aortic cholesterol plaque
- Coronary blood vessel disease
- Diabetes
- Fatigue
- High blood cholesterol and triglycerides
- Hyperactivity
- Hypoglycemia - low blood sugar
- Infertility and decreased sperm count
- Mental problems (depression/ Manic, Jeckyll and Hyde rages, learning disabilities)
- Negative nitrogen balance (body lean mass/protein loss)
- Slow growth / Shortened life span

[Chromium Picolinate, 200 mcg, 200 tablets](#), [Chromium & Vanadium 100mcg/25mcg 90](#)

COBALT

Deficiency symptoms:

- Anemia
- Emaciation, listless, starved look, pale mucus membranes
- Anorexia
- Essential part of Vitamin B 12 (Growth and nerve system function)

COPPER

- Hemoglobin (oxygen carrier in red blood cells)

Deficiency symptoms:

- Anemia (common in vegans)
- Aneurysms / cerebral hemorrhage
- Angular stomatitis
- Anorexia
- Arthritis (especially where growth plates are involved)
- Brain problems- failure to form the cerebellum (hypoplasia)
- Brittle nails
- Cerebral palsy
- Constipation
- Diarrhea
- Dizziness

- Eating dirt or ice (Pica)
- Fragile bones
- Hair problems- alopecia (hair loss), graying or white, brittle hair
- Headaches
- Heart palpitations
- Hernias
- High blood cholesterol
- Hypo or Hyper thyroid
- Kawasaki disease- rash and swollen lymph nodes
- Liver cirrhosis
- Mental problems- confusion, depression, fatigue, listlessness, violent behavior, blind rage,
- explosive outbursts or irritability, learning disabilities
- Ruptured vertebral discs problems
- Reduced glucose tolerance (low blood sugar)
- Respiratory disease
- Sagging eye lids, skin, breasts, or stomach
- Skin lesions or eruptions
- Slow growth
- Sore tongue
- Swachman's Syndrome
- Swallowing difficulty
- Upset stomach
- Varicose veins

Note: In cows, a problem called “tongue lolling” is caused by a copper deficiency. I’ve never heard of a similar problem in people but it is worth noting in regard to a mineral deficiency being documented to cause tongue problems.

[Copper Caps, 2 mg, 100 capsules](#)

EUROPIUM

- Doubles the life span of laboratory animals

FLUORIDE

- In plan- based colloidal form may aid bone strength without toxicity

GERMANIUM

- Aid in oxygen utilization
- Enhances immune system function (killer cells, interferon, macrophages and T-suppressor cells)
- [Germanium \(Potency: 7C\)](#), [Germanium Powder 6 Grams](#)
- Highly efficient electrical impulse initiator, 100-300 mgs per day of germanium improved many illnesses including Candida

Deficiency symptoms:

- Arthritis
- Cancer
- Low energy
- Osteoporosis

GOLD

- Reduces active joint inflammation
- [Colloidal Gold 24 PPM, .5 oz](#), [Colloidal Gold 24, 2 fl oz](#)

IODINE

- Copper needed to utilize iodine
- Needed for proper thyroid function,

Deficiency symptoms:

- Scalloped Tongue
- Beefy Tongue
- Heat / cold intolerance - low basal body temperature
- Brittle nails
- Bulging eyes
- Constipation
- Dry skin and hair
- Excessive sweating
- Fatigue
- Frequent bowel movements
- Goiter (throat swelling)
- Hair loss
- Hand tremors
- Heavy periods or less than 28 day cycles / Light periods or longer than 28 day cycles
- High blood cholesterol
- Hypothyroidism
- Increased appetite
- Insomnia
- Low sex drive
- Mental problems- Irritability, Inability to concentrate, depression, nervousness, poor memory
- Muscle aches and pains, cramps, weakness
- Over or under-active thyroid
- Puffy face
- Rapid pulse
- Weight gain / loss

[Lugol's Solution](#), [Source Naturals Potassium Iodide 32.5mg Tablets](#) [Norwegian Kelp, 225 mcg, 300 tablets](#), [Liqui-Kelp, 2 fl oz](#)

LANTHIUM

Deficiency symptoms:

- Chronic fatigue diseases

LITHIUM

Deficiency symptoms:

- Aggravated by high sugar consumption

- Mental problems- manic depression, rages and fits, depression, ADD
- Reproductive problems, infertility
- Reduced life span
- Slow growth rate

[Lithium Orotate 200T](#), [American Biologics - Lithium, 50 mcg, 100 capsules](#)

MAGNESIUM

Deficiency symptoms:

- Anxiety
- Asthma
- Anorexia
- Birth defects / SIDS
- Calcification of small arteries
- Growth failures
- Heart palpitations / low blood pressure / menstrual problems
- Hypothermia
- Malignant calcification of soft tissue
- Mental problems- irritability, confusion, depression, restlessness, insomnia, Hyperactivity
- Migraines / vertigo
- Muscle problems- pain, tremors, weakness, neuromuscular problems, tremors
- Seizures

[Magnesium Orotate 50T](#), [Magnesium Taurate, 125 mg, 60 capsules](#), [Calcium Magnesium Liquid, 16 fl oz](#), [Magnesium with Vitamin B-6 - 100 tab](#), [Calcium and Magnesium with Zinc, 300 Tablets - 300 ea](#)

MANGANESE

Deficiency symptoms:

- Asthma
- Ataxia (muscle weakness, speech problems, heart disease)
- Chondrodystrophy (dwarfism)
- Convulsions
- Dizziness
- Hardening of the arteries (atherosclerosis)
- Hearing loss, ringing in ears (tinnitus)
- High cholesterol
- Hypoglycemia
- Infertility (failure to ovulate or testicle atrophy)
- Loss of sex drive
- Pancreatic atrophy
- Poor cartilage formation problems
- Repetitive motion syndromes (like TMJ, carpal tunnel syndrome)
- Slow growth rates / shortened long bones
- Still births or miscarriages

[Chelated Manganese, 50 mg, 250 tablets](#), [Manganese Caps 10mg 100C](#)

MOLYBDENUM

- Essential for several enzyme systems, aids in eliminating yeast toxicity.

NICKEL

Deficiency symptoms:

- Anemia (low hematocrit)
- Delayed puberty
- Dermatitis
- High newborn mortality
- Poor growth
- Poor Zinc absorption
- Rough/dry hair coat in animals
- Reduced liver function

PHOSPHORUS

Deficiency symptoms:

- Anorexia
- Bone pain
- Eating dirt (pica)
- Abnormal or uncomfortable breathing (dyspnea)
- Mental problems- irritability, fatigue, anxiety, apprehension
- Numbness / tingling (paresthesias)
- Tremulousness
- Weakness
- Weight loss

[Phosphorus - \(Inflammations & Diarrhea\), 250 tab](#)

POTASSIUM

Deficiency symptoms:

- Acne
- Constipation
- Dry skin
- ECG changes
- Fatigue
- Glucose intolerance
- Heart problems- rapid heart rate, palpitations, arrhythmia
- High cholesterol
- High levels of protein in urine
- Low blood pressure- hypotension
- Insomnia
- Mental problems- apathy, cognitive impairment, nervousness, depression
- Muscular weakness
- Respiratory distress
- "Salt" retention
- Slow growth
- Water retention- (edema)

[Potassium 99mg 90C, Nature Made Potassium Gluconate 550mg,1 Bottles \(500 Tablets\), Potassium Chloride Powder](#)

PRASEODYMIUM

- Doubles life span in laboratory animals
- Enhances normal cell growth

SAMARIUM

- Doubles life span in laboratory animals
- Enhances normal cell growth

Deficiency Symptoms:

- Hearing loss
- Male pattern baldness
- Poor growth and poor feeding

SELENIUM

- Anti-oxidant

Deficiency symptoms:

- Age spots or liver spots
- ALS (Lou Gehrig's disease)
- Alzheimer's disease
- Anemia (red blood cell fragility)
- Birth problems- high infant mortality, low birth weight, SIDS
- Cataracts
- Cancer risk
- Cystic fibrosis / myocardial fibrosis / myalgia
- Fatigue
- Heart problems- inflamed heart muscle (cardiomyopathy), palpitations
- HIV (AIDS)
- Impaired immunity
- Infertility / male sterility
- Liver cirrhosis
- Multiple sclerosis
- Muscular dystrophy
- Pancreas problems- atrophy, fibrosis, pancreatitis
- Parkinson's Disease (associated lead poisoning)
- Scoliosis
- Slow Growth
- Sickle cell anemia

[Sodium Selenite, 250 mcg, 100 capsules](#), [Selenium, 100 mcg, 100 tablets](#)

SILICA

- Increases collagen in growing bones
- Anti-bacterial, anti-fungal, anti-viral
- Anti-inflammatory
- Systemic disinfectant
- Immune support
- Promotes healing

Deficiency symptoms:

- Brittle hair and fingernails
- Poor calcium utilization arterial wall strength problems
- Poor skin quality

[Silica 500, 50 mg, 100 tablets](#)

STRONTIUM

- Essential trace element
- Can replace calcium

SULFUR

- Aids amino acids
- Aids hemoglobin, insulin hormone, adrenal hormones, enzymes, and antibodies

Deficiency symptoms:

- Cartilage, ligaments and tendons degeneration
- Lupus
- Collagen diseases
- Sickle cell anemia

[Bio-Sulfur \(MSM\) 90T,](#)

THULIUM

- Doubles the life span of laboratory animals
- Enhances growth of normal cells

VANADIUM

- | | |
|---------------------------------------------------------|-------------------------------------|
| • Aids in glucose (blood sugar) oxidation and transport | • Decreases cholesterol problems |
| • Anti-cancer properties | • Aids insulin efficiency |
| | • Increases heart muscle efficiency |

Deficiency symptoms:

- | | |
|--------------------------------------|------------------------------|
| • Cardiovascular disease | • Increased infant mortality |
| • Diabetes | • Infertility |
| • High cholesterol and triglycerides | • Obesity |
| • Hypoglycemia | • Slow growth |

[Vanadyl Sulfate, 10 mg, 150 tablets, Chromium & Vanadium 100mcg/25mcg 90 Caps](#)

YTTRIUM

- Doubles life span of laboratory animals
- Enhances normal cell growth

ZINC

Deficiency symptoms:

- Acne
- Skin lesions or rash (acrodermatitis enteropathica)
- Anemia
- Anorexia and/or bulimia
- Bad body odors ("smelly tennis shoe" syndrome)
- Birth defects- cleft lip and palate, clubbed limbs, Down's syndrome, heart and lung defects, hiatal hernia and umbilical hernia, small/absent eyes, spinal bifida, webbed toes or fingers, etc.
- Brittle nails
- Diarrhea
- Eczema
- Fatigue
- Hair problems- "frizzy" hair, alopecia (hair loss)
- High infant mortality
- High cholesterol
- Impaired wound healing
- Loss of sense of smell or taste
- Malabsorption
- Mental problems- memory loss, paranoia, depression, lethargy, irritability, apathy
- Pica (eating hair, wool, etc.)
- Slow growth (short stature)
- Sexual problems- immaturity (remain in pre- puberty state), small ovaries or testes, sterility, infertility / impotence, enlarged prostate
- Weaken immune function
- White spots on nails

[Zinc, Calcium and Magnesium with Zinc, 300 Tablets](#)

CHAPTER 24

THE VIGOR SYSTEM FOR A HEALTHY TONGUE

THE BASIC 3-STEP GEOGRAPHIC TONGUE FIGHTING SYSTEM

- 1) Start providing your body not just “enough nutrients” but an overabundance of nutrients so it will have every possible building block it could possibly want to cover current needs (including all forms of stress) and start rebuilding your body.
- 2) Knock down any yeast or bacteria as long and hard as possible.
- 3) Build up the good bacteria (Probiotics and Acidophilus)

Sounds simple but sometimes it isn't.

STEP ONE

Geographic Tongue is telling you that you are probably deficient in one of the following Vitamins (no matter what the tests say): B-12, Folic Acid, Zinc, Iron, the B-complex or possibly Vitamin A.

VITAMINS

Most women are deficient in Folic Acid. If I were a woman, I would start with a good multi-vitamin plus additional Folic acid, B-12, Zinc and Iron. That will provide your body with the resources to start fighting back. (Stress increases your need for these vitamins). I would probably also get some B-complex sublingual liquid. You put a dropper full under your tongue once a day. It tastes pretty good and it is one less pill to take. Sometimes I get really sick of taking pills (I take about 10+ vitamins a day) so I try to get gel capsules or liquid whenever possible. I don't always take the same vitamins. I often rotate brands and specific vitamins depending on how I'm feeling or what it looks like I might need.

I might add antioxidants like CoQ10, Vitamin C, E, A and D in addition to the multivitamin or natural antioxidants like [olive leaf extract capsules](#) or [grape seed extract](#). The worst that can happen is that you will have highly fortified urine. At least you will know that your body has the resources it needs. Think of it like insurance, you don't mind if you never need your fire insurance so think of vitamins as “health insurance.” A Recent USDA study showed that only 4% of Americans are getting the minimum recommended dietary allowance (RDA) of their essential vitamins.

Another US Government survey found that out of 21,000 people surveyed, NOT ONE of them managed to eat the recommended dietary allowance (RDA) of all ten of the basic nutrients studied. (It's hard to believe not one out of 21,000, but that is what the test results said, so what are the odds that you are getting what you need?)

On any given day, 91% of Americans don't eat the recommended amount of fruits and vegetables.

Because of Modern Agriculture, the food you eat doesn't have the nutritional value your grandparents got from eating the same food. For instance, incredible as it seems, today you would have to eat 60 servings of spinach to get the same amount of iron as in one serving of spinach in 1948!

65% OF AMERICANS DON'T GET THE MINIMUM DAILY REQUIREMENT OF ZINC!

Zinc is essential for your immune system, your reproductive system (prostate in men) and one of the minerals linked to Geographic Tongue.

Many people have asked me for specific vitamin dosages and that is very difficult because there are many factors involved including your weight, your stress level and your ability to actually absorb the vitamins, which is based on your individual intestinal health and state of cleanliness. Another factor is the quality of the vitamins you take. Yes, unbelievably, not all vitamins are created equal. Synthetic vitamins are not the same as natural ones and processing and storage methods vary, so it is very difficult to know what quality you are getting. Here is a list of what I may take, although it does vary:

One mega multivitamin (just to cover all the bases) plus:

- 1000 - 5000 mcg B-12 (sub lingual or injection)
- 400 - 800 mcg Folic Acid
- 50 MG Zinc
- 28 mg Iron
- B "50" multi
- 400 mg Magnesium
- CoQ10

In addition, I rotate taking a variety of other supplements so I can cover all the bases without taking 100 vitamins a day.

Others include:

- Olive Leaf
- Grape seed extract
- L-Lysine
- Lithium
- Potassium
- Probiotics
- A & D
- 1000 Mg Vitamin C
- Ginseng
- OregaMax
- Molybdenum drops
- Tea Tree Oil
- Flax Seed Oil / Borage Oil / Fish Oil (capsule) which provides Omega 3 fatty acids ALA, EPA, DHA plus Omega 6 fatty acids.
- Coral Calcium "Supreme" which is actually a multi with calcium

STEP TWO

If you have yeast or bacteria problems, knock the yeast or bacteria down. Remember yeast can form spores and live in very harsh conditions for long periods.

The key is balance. You need to knock them down while at the same time building up the good bacteria and that takes time. Read the [Thrush Chapter](#) about the best way to fight yeast using NYSTATIN Powder (not the liquid).

Nystatin powder tastes terrible but is well worth it if you have a yeast problem. I take it once a day before bed but if you can stand it, you should take it three times a day. The powder works directly on the tongue and the longer you let it sit there the better. The liquid washes away too soon.

STEP THREE

Build up the good bacteria. You want as many strains as possible. ThreeLac is one brand that has a great marketing program but it seems expensive to me. It tastes good (because it contains some sort of lemon flavored sugar) and isn't a pill but a powder that you pour directly on your tongue, I think it is probably not worth the extra money although it is probably beneficial. You probably want to start on plain yogurt. It is easily digested (it is actually predigested) so it is safe for everyone—even babies. The major problem with it is all the sugar and flavorings the companies put in it. I recommend getting a yogurt maker and making your own or getting plain yogurt and adding fresh fruit.

One problem with all the probiotics is that if they aren't stored properly they become worthless. If you add a crushed tablet (or powder) to the milk and try to use it in the yogurt maker, you can find out if they are active. If it turns into yogurt, it is still active. In addition, you can multiply the stuff yourself this way without buying more. It makes different tasting yogurt depending on the strain that proliferates.

Here's some links for products (you don't necessarily need all of them):

- [B-Complex in liquid form](#)
- [Sublingual Vitamin B12](#)
- [Zinc Orotate](#)
- [Folic Acid](#)
- [Calcium, Magnesium, Zinc](#)
- [Vitamin E](#)
- [Nature Made Women's Pack](#)
- [COq10](#)
- [Vitamin A & D](#)

I haven't tried this particular one but it does have several different strains of Bacteria: [Udo's Choice Probiotic](#).

If you have difficulty absorbing vitamins, the best thing is to get some sort of test to find out what you actually are still deficient in.

FOR MORE INFORMATION ON HYDROGEN PEROXIDE:

[Hydrogen Peroxide: Medical Miracle](#) by William Campbell Douglass (Paperback - January 1996)

[Flood Your Body with Oxygen](#) by Ed McCabe

THE V-I-G-O-R SYSTEM TO TONGUE HEALTH

Now that you have made it this far, I would like to bring the entire premise of this book down into a simple easy to remember system for finding and maintaining a healthy tongue and complete body. Therefore, I have developed the "VIGOR" system of tongue health.

By following the VIGOR system, you will have a healthy vigorous tongue in no time at all. This simple yet effective system combines all the tips and tricks for a healthy tongue into one single, easy-to-remember system.

Of course after you have read this far, you may guess that VIGOR stands for

Vitamins

Imagine a Healthy Tongue

Gastro-Intestinal Health

Oral Hygiene

Remove Bacteria

VITAMINS (AND MINERALS)

As we have seen throughout this book, each specific tongue malady or problem is associated with one or more vitamin deficiencies. By getting the proper vitamins your tongue problem may clear up easily and quickly.

For instance, if your problem is a Geographic Tongue, large doses of Vitamin B₂, B₆, B₁₂, Iron or Zinc may clear up your problem in less than a week. If your problem is a large beefy tongue, Pantothenic acid or Iodine may be the cure. However if your problem is a burning tongue the problem may be a bit more complex and require vitamins B₂, B₆, B₁₂, and Niacin.

Purplish-blue veins under the tongue or a purplish or magenta tongue or lips can be caused by a deficiency in Vitamin B₂ or poor circulation, while edema or tooth-marks on tongue can be the result of niacin or Iodine deficiency.

A cracked, fissured or furrowed tongue can be caused by a Vitamin B₁ and Pantothenic acid deficiency or a variety of minerals but can be difficult to relieve.

Gums receding or bleeding (gingivitis) can be helped by Vitamin C, bioflavonoids, and calcium.

Mouth ulcers, and/or canker sores can result from folic acid, Vitamin B₆, or zinc deficiencies.

Prominent or eroded papillae can be caused by a niacin or B₂, B₆, B₁₂ deficiency.

A tongue red at the tip or edges, or in the case of a severe deficiency, the whole tongue scarlet red and sore, could easily be the result of a niacin and/or B₆ deficiency.

A shiny, smooth, beefy tongue; or strawberry-red tip/sides could be a sign of a folic acid and B₂, B₆, B₁₂ deficiency.

Interestingly a tongue too small or too large could be the result of a lack of niacin and Pantothenic acid.

Scallops around the edges and/or a large beefy tongue can be related to thyroid insufficiency or Iodine deficiency.

White patches on the tongue could be vitamin B₂ and other B vitamins or some form of allergy.

I M A G I N E A H E A L T H Y T O N G U E

However, often it is not as simple as that. If your problem is more in-depth than a simple vitamin deficiency, it could be due to a variety of elements combining in your tongue problem. If that is your case, you have to want to be healed enough to focus your energy on finding the solution.

The easiest way to focus your energy is to begin by visualizing a healthy tongue. Know what one looks like and keep that firmly in mind. It has been said, "What your mind can conceive and fervently believe you can achieve." Although this is generally spoken in "Success Motivation" circles, it also applies to your health. No one is more concerned about your health than YOU are! Therefore, you need to focus on finding and implementing the solution to your individual problem.

Since tongue problems are often the result of many various problems combining in unique ways, every situation is slightly different. Therefore, every solution is a "custom solution" crafted specifically for your individual problem.

Once you commit to finding the solution and vow not to give up until you have tried absolutely everything, you must "See" yourself with a healthy tongue. Your mind and body will begin to marshal the necessary forces to correct the problem. In addition, your subconscious will begin to work on finding the solution and before you know it the solution will be right in front of you.

By focusing on the goal of a healthy tongue, you won't give up until you find the solution that is there for the finding!

G A S T R O - I N T E S T I N A L H E A L T H

There are a great many ways to start down the road to a healthy intestinal tract. The first is to begin by cleansing your colon both with "colonics" and by eating healthy natural foods high in fiber.

The next step in promoting a healthy digestive system is to promote proper absorption. If you followed the first two steps, you will be on your way toward good absorption. Taking vitamins does no good if you can't absorb them. If your colon walls are lined with glue, you will not be able to absorb the nutrients. In addition, if your stomach doesn't have enough acid or the proper enzymes, food will also not digest properly. Therefore, it might be necessary to supplement the hydrochloric acid or other digestive enzymes, especially if you are getting older.

Digestive enzymes break down both plant-based foods and proteins. Most of them end in the letters "ase" like protease, amylase, cellulase, glucoamylase, lactase, lipase, etc. You can generally tell what they break down by what comes before the "ase." As Cellulase breaks down cellulose, lactase breaks down lactose (milk sugar), etc. [Digestive Enzymes](#)

Finally, because of their different way of looking at things Traditional Chinese Medicine might be helpful in determining what deficiencies are present and finding herbal remedies that might help.

O RAL HYGIENE

Naturally, one of the most obvious methods of attacking tongue problems is with oral hygiene. Your tongue needs to be free from damaging bacteria and yeast.

One method of reducing these terrors is by brushing with hydrogen peroxide diluted 50/50 with water. You can also use [TheraBreath Toothpaste](#), which tastes better and helps with bad breath issues.

Brushing and gently scraping your tongue with a [tongue scraper](#) can also be helpful in maintaining good oral hygiene.

R ESTORE GOOD BACTERIA

The final step is to “seed” your intestines with healthy bacteria called “Probiotics” this will return your digestive system to its intended balance and provide the necessary bacteria to break down your food properly rather than simply fermenting it. There are a great many varieties of “good bacteria” including Lactobacillus acidophilus, Lactobacillus bulgaricus, and many others. Some occur naturally in foods like yogurt. Unfortunately, they can be killed off completely if you take antibiotics. Moreover, if they are not restored, your digestion will suffer, causing malabsorption problems, which may result in a great variety of tongue problems.

Remember, many tongue problems are specifically related to vitamin deficiencies which may be due to not getting enough vitamins in our overly processed foods or because they are not being absorbed properly.

I hope that you have found this book helpful and that the information in it has started you down the road to health.

If you have found this book helpful, please drop me a line at editor@HealthyTongueSecrets.com

To Your Health,

Tim McMahon, editor

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