

Fungal Infections – How to Eliminate Yeast, Candida, and Mold Infections For Good

Most, maybe all of you reading this, have Candida, even if you're perfectly healthy. You have other fungi too. We all do. When the gut is healthy some fungus and lots of bacterial microbes live in harmony with us. Like bacteria, there will always be some fungi within us. Candida likes the human body. It's the most common infectious fungus, typically responsible for oral thrush, skin rashes, eczema, psoriasis, athlete's foot, vaginal yeast infections, and so much more. It's one of our main microbes. Studies show that up to 90% of the population has Candida Albicans within them, but some (like me) suspect it's closer to 100%.

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Candida albicans is by far the most commonly known, accounting for about 50% of all cases of recognized fungal infections around the world. There is also Candida tropicalis, Candida glabrata, Candida parapsilosis, Candida krusei, Candida lusitaniae, and probably more, but let's just call it all "Candida" for simplicity's sake.

The most important point you should take away from this article is that Candida is not the “bad guys” any more than bacteria or other microbes are. With few exceptions, pathogens are simply responding to their environment. We understand this concept in biology well, but this concept gets ignored regarding the human body as it relates to disease. The fact is that the microbes all around our body are primarily based on the eco-system inside our gut, which is dictated primarily by the food they have to eat, i.e., the food we eat. You can take the nicest, friendliest bacteria from the gut, place it in a sanitized petri dish, introduce some sanitary junk food with simple sugars, and those bacteria are not going to look or act like our friendly little symbiotic fellows much longer. Microbes are very good at evolving to their environment, and we have a lot of different kinds. Even if you’re missing most of the beneficial bacteria that you should have, you still have a huge array of symbiotic microbes.

Candida and Bacteria

This single-cell organism, Candida, reproduces asexually and thrives on dead tissue, scar tissue, dead and decaying cells of any kind, and simple sugars from food. On that note, most all pathogens prefer to feed on simple sugars and dead or decaying cells. They are our garbage collectors. The problem is that their mere presence causes irritation (for various reasons, including gasses they release). This irritation leads to damage, so if a colony of a certain type of microbes has enough to eat in an area where they should not be, this can damage the area, giving the microbes more food, thus the vicious cycle of disease.²

Pathogens like simple sugars the best,¹ but when they don’t get as much as they are used to they tend to get irritated and then turn hostile. This causes more nearby cell damage and decay which hurts us and feeds them.

When the body is in homeostasis, the microbes are balanced and the gut is healthy. When the gut is healthy, the gut doesn't leak the wrong things into the body.

Gut Balance

When we eat foods that are best for us (like raw vegetables and herbs) the most beneficial microflora go to work. Happy with plenty of food and reproducing, they crowd out everyone else, and these guys help regulate and even produce lots of vitamins hormones as they break down protein molecules. Proteins that have not been digested thoroughly by our gut bacteria will not be digested well by us. These proteins entering the body will be looked at as "foreign proteins" which is antigenic to the body (causes immune response).³

Many of the bacteria that harm us tend to move quickly and come across as generally more agitated under a microscope. Healthy gut bacteria under a microscope look like a decent bunch of fairly slow moving microbes, just doing their thing. There are plenty of slow-moving bacteria and amoeba and other pathogens that move slowly, but looking at good bacteria, you can visually see how they can gently protect the body and crowd out or at least slow down pathogenic proliferation. Gut bacteria and mouth bacteria have a lot in common and bio-dentistry is on to this.

Check out the different behaviors of bacteria and other pathogens under a microscope. A fun experiment is to eat some raw vegetables like a salad, and then take a large saliva sample, put it under the lens in a petri dish, and find the bacteria swimming around in your mouth. See how fast they move. See how many there are. Now drink some soda or something else terrible, and get it all in your gums and everything. If you're a smoker, do that too. In 10 minutes take another sample. The microbes are different. They're fast and they seem angry. If you like videos, here's a video. Note what they say

about diet. I find it both wonderful and frustrating how close conventional wisdom has gotten to understanding the impact food plays on our microbes.

But we live in an antibacterial world. And while superbugs are coming to destroy us all, we've done a remarkable job of killing off and suppressing bacteria, for both good and bad. I had the urge to type "both good and bad bacteria," but that's the misnomer. Microbes are not good or bad (though for simplicity's sake I will refer to them this way). The "bad" bacteria are just doing their job, and the beneficial bacteria that are friendly to us can mutate and become pathogenic under poor-health circumstances.

Just a quick, barely relevant fact: There are many strains of e. Coli and salmonella that we know of that often exist in our gut and cause us no harm.⁷ The pathogenic, virulent forms are a result of factory farming.⁸ These two superbugs that kill us so often are a result of some badass e. Coli or salmonella that was actually tough enough to survive and escape the incredibly acidic and antimicrobial environment of a factory-farmed cow or chicken, respectively. It's not only metaphoric of how our gut works. Consider the parallels between how microbes adapt and our justice system, or our drug wars, or how we fight terrorism. We as humans behave like microbes in a myriad of ways. We could learn a lot...

Also, our fruit has much more sugar in it than it used to. Even if one never eats refined foods we get more sugar from fresh fruit than we ever would have in nature before we started selectively breeding our food (hybridization). In other words, even if you're eating the perfect modern paleo diet, you're not eating like a paleo at all, unless your bananas look more like this:



So, as a population, we eat fruit with tons of easily absorbed sugar, we eat refined foods, and we do lots of stuff to kill our gut flora, like GMOs, antibiotics, pesticides, and herbicides, etc. But Candida is really hard to kill. We often eliminate most or all of the microbes in our gut and much around our body with antibiotics, but Candida spores cannot be killed so easily. They wait, dormant, patient, just lying around for up to 6 months.^{4,5} These spores will survive anything we try to do to get rid of them. As soon as they sense a hospitable environment (food, i.e. sugar) they will come to life and proliferate.⁶

What Causes An Overabundance of Candida?

You get the idea by now, but mostly, it's an overall poor diet with too much sugar. At least 95% of the problem is sugar. Refined foods are sugar to the body. But there are a lot of other things we do that allow Candida to flourish and run our lives:

- Chemical birth control
- NSAID pain relievers
- Steroids
- Factory farmed meat
- Chronic constipation
- Alcohol
- Recreational drugs
- Mercury toxicity (like dental fillings)
- Other heavy toxicity (like from vaccines)
- Extreme stress

- Vitamin and mineral deficiencies

Here's How Candida Takes Over

Candida is hanging out in the gut of a person. Said person eats a bunch of nasty food with toxins that kill our most beneficial flora, along with refined foods that quickly break down into simple sugars that do an efficient job of feeding pathogenic microbes. The person gets sick. The person takes antibiotics. The prescriptions may also kill off the Candida in the gut too, but not the spores. Said person then, hopefully feeling better by now, eats as he or she normally eats. Candida reactivates its lifecycle. They proliferate with little to no competition. Once that Candida is feeling crowded and has outgrown its home in the gut, Candida will grow out of its simple single-cell yeast form and into a filamentous, mycelial, virulent fungal form, growing root-like tentacles (hyphae) that drill deep into the mucosal lining of the gut, poking "holes" into already an irritated and inflamed, gut lining, resulting in a leaky gut.^{9,10} (Click here for more on mycelial fungi.) Now Candida and all kinds of other crap (excuse the pun) can leak into the bloodstream and travel throughout the body. Candida can infect every organ of the body. When it takes the fungal form, it creates a toxic biofilm that protects itself against things that would normally kill it (like antibiotics). It may or may not be Candida that is causing what ails you, but there is at least a very good chance that Candida opened the door to the pathogen at some point.



When Candida makes its escape, it proliferates into the bloodstream, and consequently, all around the body. If you smashed your elbow in a football injury 17 years ago there is

still a tiny bit of scar tissue there, and that's one of the places that Candida will set up a home outside the gut. When they don't have sugar they will feed off of scar tissue and other "dead" cells.

Now the body is overwhelmed. The Candida will travel all over the body, but it will usually be eliminated from the blood fairly quickly. Maybe said person goes and gets a blood test, but you can read here why tests for Candida aren't very accurate. The toxins that Candida leave behind get filtered out by the liver, eventually, hopefully, but the virulent Candida itself will be purged from the blood as the body's immune system goes into high gear. Now the body has satellite infections of Candida all over, spread throughout. Every ache we have from an old injury is most likely hurting when there is pathogenic activity. When we wake up in the morning we are at our most achy in large part because of reduced blood flow and movement leading to more pathogenic activity. And again, this is a good thing in a balanced body, as they are taking out the garbage.

Picture that body full of Candida satellite infections. If the person eats sugars the Candida get fed, gets happy, proliferates, probably does another bloodstream ride to spread out, and that's that. When one restricts the sugar, what do Candida eat? Us. Dead or weak cells. It kinda hurts. Feed the Candida another burst of sugar (or toxic food that damages the cells enough to feed the Candida that way), and the Candida leaves us alone for a bit. This is obviously overly simplistic, but it should show how easily and symbiotically Candida can cause poor food cravings.

There are antifungal drugs that can kill off Candida, but again, not the spores. Once those spores are all over the body, they will stay hanging around for up to six months, waiting for food.

This same sort of thing happens with other pathogens too, but

Candida is the key. It literally opens the doors for other pathogens (and food particles that needed more digestion, and lots of other “crap”) by creating the holes in the gut. Other things can create this extra permeability as well, but Candida opens the gut fast and typically does it often.

Candida and Wheat

Candida causes lots of unexpected and fascinating problems that connect a lot of dots for those with chronic health issues. Take wheat for instance. A protein found in Candida called HWP-1 is identical or highly homologous (nearly identical) to two gluten proteins, alpha gliadin and gamma-gliadin. These proteins are known to stimulate immune cell responses in people with celiac disease. In other words, Candida, the yeast responsible for oral thrush and vaginal infections (and so much more), contains the same protein sequence as wheat gluten and therefore could trigger celiac disease.

It gets worse. The gluten protein is similar to protein structures in the nervous system and the thyroid tissue. The body will turn on these proteins shortly after it begins reacting to gluten. This is the essence of chronic autoimmune disease.

How To Know if You Have Candida

This is a hard one for most people to swallow, but if you're sick, you've got Candida. As we've established, it's not about “catching it.” If the gut is not balanced the gut has an abundance of Candida and other less-than-beneficial microbes. If any of the following pertain to you, Candida or not, it's time to balance the gut by fixing the diet.

- Allergies
- Skin issues

- White tongue
- Floaters in vision
- Itchy feet or hands or ears
- Prone to any other infections

The allergies concept is especially hard for many, but it's true. If you have food or seasonal allergies, stop blaming genetics and accept that the body's biology is out of balance. For more on this, check out *Candida Overgrowth Symptoms*.

How to Prevent Candida Overgrowth

First of all, stop thinking of microbes as the bad guys. That's not the case, not at all. Think of them more like humans. Picture yourself as you grow up in the worst war-torn part of the world you can imagine. Drone strikes, little food, toxic water, and a brain that functions half as well as yours does. How would you react to your environment? What's the best way to fix the problem? Fix the environment. And it's also the only way to prevent the problem in the first place.

Drink lots of water, and feed the body foods that the friendliest microbes love. Flushing the body is critical because there are lots of gasses and other toxic substances that accumulate in the body with an abundance of Candida. It slows the bodily systems, causing sluggish liver and kidney functionality.

Here are three articles on diet. The information will prevent Candida infestations in the body, as well as any other pathogen, and in most cases, with patience, this diet/lifestyle will eliminate Candida and other diseases as well.

- *Detox Cheap and Easy Without Fasting – Recipes Included*
- *Start Eating Like That and Start Eating Like This – Your Guide to Homeostasis Through Diet*
- *How to Make the Healthiest Smoothies – 4 Recipes*

The first one has my salad and cranberry-lemonade recipe. I suggest everyone eat and drink like that every single day.

The Best Supplements for Killing Candida, Yeast, Molds, Other Funghis

First and foremost, just pack the gut with good food. Eat a big salad. Picture the intestinal tract and imagine it being packed full of vegetables and herbs. If you're one of those health-food hating virulent microbes, you're at least not going to be reproducing while you're being squeezed out by salad and salad loving microbes.

Cut out all refined foods because they feed pathogens. Cut out all toxic foods because they kill the good guys and damage the gut which feeds the pathogens. If you suffer from allergies, you eat too much sugar and/or refined foods (or drink alcohol regularly). Cut out the sugar and the allergies go away. See the above articles for more on diet. Most people don't need supplements and can get rid of every single health issue they have with just diet. On the other hand, with the intense sugar cravings that Candida causes, supplements can not only speed up the process of getting well, they can balance a person's body just enough to help ensure better choices are made and the supplements also compensate for the bad choices. But therein lies the rub. Most people are just looking for that one supplement that's going to ease some of the pain their lifestyle causes. And while that one supplement should be SF722, in my opinion, the most common way someone uses such a supplement is to take enough to feel the pain relief they seek while they keep making poor food choices until more pain relief in one form or another is needed. The only difference between supplements and prescriptions in the way most people use them is that supplements don't have the toxic side effects. But my point is that without the right diet, just

consuming supplements will not create homeostasis. That said, here are the top supplements to take for Candida control:

- SF722
- Berberine
- Oil of oregano
- Abzorb
- Magnesium
- Biotin (We recommend a B complex or Chlorella)

SF722

This is my favorite for killing anything fungal. There are tons of other choices ([click here](#)), but I don't know of anything that does a better job for the money than SF722. Candida can become fairly immune to many other antimicrobials but studies have shown that this does not happen with SF722. SF722 is antimicrobial so it can kill some of the good guys, but it doesn't seem like it's very good at killing bacteria compared to some other compounds. This is a benefit when dealing with Candida.

How to Take SF722

I've known people that take more than 60 in a day. It can acidify the body temporarily, but the acids are dispelled easily and Candida doesn't like acidity (I wonder how many people will feel the need to check on this fact). Obviously, you want a slightly alkaline body for health, but Candida is not one of the ones that like acidic environments. The bottle says to do 15 (5x3) and I recommend moving up in dosage if need be, depending on the die-off symptoms. Take it until Candida symptoms are gone, and then have it on hand to compensate future indulgences with poor food or drink choices. I usually take 20 when I eat at a restaurant.

Berberine

Goldenseal (*Hydrastis canadensis*), barberry (*Berberis vulgaris*), Oregon grape (*Berberis aquifolium*), and goldthread (*Coptis chinensis*) contain the broad-spectrum antibiotic alkaloid berberine. Berberine is effective against pathogens including bacteria, protozoa, and fungi. Berberine has been proven in some studies to be stronger than many common antibiotics.

How to Take Berberine

Take it separately from probiotics, and follow the instructions. I tend to always take twice as much as they recommend, but I also weight 220 pounds. There should not be a need for high doses while taking the other supplements.

Oil of Oregano

Oil of Oregano is one of nature's most powerful antibiotic supplements, but I don't think it's all that great against Candida. Plus, it works so well that the body can't maintain healthy bacteria. It's a great supplement to have on hand, but it is one I reserve for the acutest cases where killing the bad guys is the primary and urgent focus.

Probiotics

Often touted as the cure everything supplement for the well-informed, probiotics are something most everyone is familiar with these days. What most do not know is that the vast majority of probiotic supplements on the market are ineffectual at best, and many actually feed yeast. How the probiotics are processed and preserved make all the difference. It's not an easy task to produce good probiotics; our stomach acid is designed to kill it. Two of my favorite are FloraMend and Bio-K (the latter is not available in our store, but it is at most health food stores and Whole Foods).

I don't recommend taking a probiotic with antimicrobials. A really good probiotic should come out on top, but you are reducing its effectiveness when you combine it with compounds that kill. For instance, I would take SF722 all day and a probiotic at night and early morning, or vice versa, where I take the probiotic with food and the SF722 late and early. Different digestive issues can favor one over the other so try both ways and see what works for you.

How to Take Probiotics

Don't take them with antimicrobials, and make sure they are high-quality supplements. Anyone without an appendix should take a probiotic every day with every major meal for the rest of their life. Your appendix secretes out beneficial bacteria when you don't have enough.

One antimicrobial you can take with probiotics is Olive Leaf Extract. It's great for maintenance but it's not a yeast serial-killer like SF722 (otherwise it would damage the probiotic). It's a fine supplement, but it's not going to do much of anything all by itself.

Systemic Enzymes

I am in love with a fairly new supplement called Abzorb. It's one of the only four I regularly take (I'll mention the other three as well in a moment).

As we age, our pancreas produces fewer enzymes for the body. We need enzymes to survive. We need enzymes to do everything, not just break down proteins. If you are healthy, you have an abundance of healthy enzymatic activity. When enzymatic production yields are low enough, the body will break down within hours with a heart attack or a stroke. They are the catalyst for almost anything that happens at a molecular level in the body. Without enzymes, we would not be able to do anything with our vitamins and minerals.

Enzymes break down proteins. They do this with foreign proteins (which those with Candida issue have in abundance) and fibrin, the protein that makes up scar tissue. Fibrin feeds Candida and other pathogens if you didn't skip all that ecology knowledge up above. These enzymes also reduce toxins in the blood and help balance cholesterol. Our body produces fibrin in response to trauma and enzymes help take it away in time. Anyone working in a morgue can tell you that one of the most obvious differences between a young body and an old body is that the older person has lots of fibrin all over the inside of their body. Strokes, heart attacks, aneurysms, and other often deadly ailments can be attributed directly to this.

Inside the gut, if food is not digested, it rots and feeds pathogens (ever notice how when things rot they smell sickly-sweet?), and Candida makes it hard to digest food properly.

The more enzymes we have to break down food, the better we digest and use the nutrition. Digestive enzymes help digest food in the stomach. Systemic enzymes don't break open until they reach the gut. So, taken on an empty stomach, the systemic enzymes will go to work to repair the body and kill some viruses while they're at it (I forgot to mention that enzymes kill viruses).

On the other hand, if you take a systemic enzyme with food, the enzyme will go to work to digest the food inside the gut.

And this brings me to Abzorb. It's a probiotic and systemic enzyme. If you take it with food it will help you digest the food, and it works very well for this, much better than just taking one or the other. And while the product is more affordable than some of my other favorite probiotics, I find this probiotic is just as effective at colonizing in the gut. Usually, you need to spend considerable money on probiotics and enzymes for quality, but Abzorb is affordable. It is very effective, and you get two very important and synergistic

supplements in one.

How to Take Systemic Enzymes

Take them on an empty stomach as noted or with food to help digest food inside the gut. I recommend mixing it up each day, but I do recommend caution when taking systemic enzymes. Too many systemic enzymes can cause issues, they can start to eat away at the body, so I don't just grab a big handful like I do with SF722. I personally take 4-6 a day on an empty stomach, and I take more with food as needed.

Magnesium

The byproducts of *Candida albicans* include ethanol, uric acid and ammonia, acetaldehyde, and about 75 other toxic gases we know of. The big one on the list is acetaldehyde.¹² Acetaldehyde is also produced when you drink alcohol, smoke, or breathe in car exhaust. It's in large part responsible for the "hangover" feeling we get after a night of debauchery.¹³ Magnesium is required to break down acetaldehyde. It's unclear if magnesium deficiency can cause more *Candida* growth in any way, but a lack of this mineral does exacerbate the problems associated with *Candida*. Without enough magnesium, the body will sustain a lot more damage, which feeds the *Candida* overgrowth cycle. *Candida* causes magnesium deficiencies too, and anyone who has *Candida* overgrowth is low in magnesium.

How to Take Magnesium with Candida Issues

Candida causes the body to require more magnesium than the recommended daily dose of 400mg. Often a *Candida* cleanse can cause the magnesium levels to become dangerously low, and then the individual may suffer from sluggish bowels which just compounds the symptoms of *Candida* die-off further.

Biotin

Like Magnesium, B vitamins are always low in those dealing with Candida overgrowth. Candida makes it very difficult for good bacteria to give us the b vitamins we need to make good decisions. Impulse control is severely hampered when there aren't enough Bs. Too much fungi = not enough good bacteria = not enough b vitamins = poor food choices.

But biotin has a trick up its sleeve that causes it to make this list. Biotin is a coenzyme and a B vitamin. It is also known as vitamin H and vitamin B7. Because biotin is present in so many different kinds of foods, a serious deficiency is rare. But those who have had health issue due to Candida for a long enough period of time are likely going to be low in all Bs including B7. And B7 actually inhibits Candida from transforming into its mycelial, pathogenic form.

How to Take Biotin

With B vitamins it's usually best to take a complex, not a single B. If one takes too much of one B vitamins it can inhibit the assimilation of other Bs and throw all the vitamins out of whack. Another option is chlorella, which has lots of B vitamins, including biotin, and it kills Candida in some other ways too.

I wanted to keep this article a bit more specific and focused. But the reality is, if you suffer from an abundance of Candida, you also suffer from many other pathogens. And the aforementioned salads can take care of the vitamin and mineral need. For people who need to heal their gut, I recommend a healthy diet void of refined and processed foods, salads every day, and the following supplements:

- Formula SF722 – Thorne Research
- Syntol AMD – Arthur Andrew Medical
- Berberine 500mg – Thorne Research
- MycoCeutics MycoPhyto Complex – EcoNugenics

- MicroDefense – Pure Encapsulations
- Abzorb Vitamin & Nutrient Optimizer (500mg) HCP Formulas
- Diatomaceous Earth (more info)

The first three should be plenty for most people, but for really prominent fungal issues or for impatient people with a bigger budget I'd recommend all of them. For more on diet, including salad recipes, check out:

- *Detox Cheap and Easy Without Fasting – Recipes Included*
- *Stop Eating Like That and Start Eating Like This – Your Guide to Homeostasis Through Diet*

My Supplements

Total Nutrition Formula is my multi-vitamin/mineral formula. I take it once a week, but I used to take it every day with smoothies. Now I eat enough salads I don't feel the need for it as much. It has chlorella and spirulina and lots of other good stuff. Spirulina isn't a big Candida killer but it goes hand-in-hand with chlorella, so I figured I'd add it in. A study in 2001 found that spirulina supports our beneficial microflora which leads to less Candida,¹³ and an experiment from 2010 shows that spirulina enhances immune system response to Candida and other pathogens.¹⁴ It's said that chlorella does a similar number on Candida, and it's rich in B vitamins including biotin, and I also read somewhere about how chlorella can break down the cell walls of fungi, but I cannot find that anywhere.

I always have SF722 on hand but I don't take it very often. I take Abzorb in the mornings on an empty stomach, 3-4, and I take 1-2 with every cooked meal I have when I remember. I also take Liquid Light every now and then, just when I have a feeling I need a mineral boost.

When I was smoking marijuana I constantly sipped on Mother

Earth Cider. It kept me from getting sick. Now I just sip once or twice a day. Just read the ingredients and you'll see why. This is by far my favorite supplement on the market, but it's not here as a Candida fighter. I'm sure it does a little, but not like the aforementioned.

Conclusion

Two other big causes of Candida overgrowth that we did not touch include vaccines and amalgams. The damage these medical products cause will feed Candida indefinitely. If you have heavy metal toxicity, the only thing I would do differently in this protocol is to add the Total Nutrition Formula and take additional chlorella and spirulina daily. It's hard to eat too much of these seaweeds, and they have tons and tons of benefits, so get them in you any way you can. I think they're disgusting so I prefer tablets or strong smoothie concoctions to bury the taste.