Candida & Yeast 101

by Steven F. Hotze, M.D.

#### Introduction

Dr. Hotze is founder of the Hotze Health & Wellness Center and author of the book Hormones, Health, and Happiness. He has enabled thousands of women and men to achieve optimal health using his customized 8-Point Treatment Regimen. If you would like a free evaluation regarding your health, you can contact his office by calling 877-698-8698.

Notice: This book is intended as a reference guide, not as a medical manual. The information given here is designed to help you make informed decisions about your health. It is not intended as a substitute for any treatment that may have been prescribed to you by your doctor or therapist. If you suspect that you have a medical or emotional problem, we urge you to seek competent medical or psychiatric help.

The names of those whose cases are presented in this book have been changed to preserve their privacy.

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## Maggie's Story: Do You Want Your Life Back?

Women should feel healthy, vibrant and strong throughout their adult lives. If you have been told "it's in your mind" or "live with it," read on.

Maggie is a 43-year old woman who presented to the Hotze Health and Wellness Center with a seven-year history of depression and fatigue, which developed after giving birth to her second child. She had a lifelong history of cold hands and feet and sensitivity to cold. She was experiencing significant hair loss, was constipated and had severe muscle aching. Even after sleep, Maggie never felt rested.

Maggie had experienced recurrent sinus infections and headaches over the past seven years, for which she had taken antibiotics. She also complained of recurrent abdominal cramping and bloating associated with the ingestion of sugar and bread products, which she craved.

Since her last pregnancy, Maggie's menstrual cycles had been irregular. She had gained 30 pounds over the past seven years and had difficulty losing weight. She had lost all sexual desire, and felt that she was in a "brain fog."

Maggie had sought the care of numerous physicians. They told her that she was "depressed" and prescribed her antidepressants. A friend, who was a patient at the Hotze Health & Wellness Center, told her that there was a natural alternative treatment for her problems, so Maggie presented to us for an evaluation. Maggie's name could be easily erased from her chart and replaced with the names of thousands of other women in midlife whom we have evaluated. The problems experienced by these women in midlife often stem from hormonal changes, especially a condition known as "estrogen dominance."

**Estrogen Dominance** First let's understand some basic facts. A woman's ovaries produce three natural estrogen hormones and progesterone. The production of hormones slows over time so that by the age of 35, a woman's hormonal production has dropped considerably. This decline can occur at any time, at puberty, after childbirth, birth control pills or a hysterectomy.

Progesterone, the "feel good" hormone, is the first hormone to decline and drops 120 times more rapidly than estrogen. Estrogen dominance does not mean that there are high levels of estrogen in a woman's body; rather, it means that the estrogen is not balanced by progesterone. As progesterone declines and estrogen becomes dominant, symptoms such as breast swelling, uterine fibroids, fibrocystic breast disease, and migraine headaches occur. At menopause, the decline in estrogen leads to vaginal dryness, hot flashes, night sweats, as well as mood swings.

The Effects of Hormones The female hormones affect every cell in the body, including the brain. It is the female hormones which stimulate the brain to produce serotonin, dopamine, and neurohormones that elevate our moods. When estrogen and progesterone are out of balance, women often experience premenstrual symptoms, such as mild to severe mood swings, breast tenderness, fluid retention, headaches, irregular periods and breakthrough bleeding. When this occurs women may safely and effectively supplement themselves with bio-identical hormones to restore hormonal balance. Bio-identical hormones are identical in

structure to those created by our bodies. On the other hand, drug company counterfeit hormones, such as Premarin, Provera and PremPro, are not identical and often lead to numerous side effects. If they were identical, then they could not be patented and therefore would prove less profitable. The Women's Health Initiative Study demonstrated that counterfeit hormones cause serious side effects.

Estrogen Dominance & Hypothyroidism Thyroid hormones enable our cells to produce energy. Estrogen dominance causes the liver to produce high levels of a protein, thyroid binding globulin (TBG), which binds natural thyroid hormone in the blood, preventing it from being used properly by the cells. This is often overlooked since routine thyroid blood tests taken by most physicians do not detect functional hypothyroidism.

Some common symptoms and signs of low thyroid include fatigue, cold hands and feet, dry skin, decreased mental sharpness, depression, hair loss, sluggish bowel function and elevated cholesterol. Women frequently mention that their metabolism changed after their pregnancy, when they began taking birth control pills or when supplementing with counterfeit hormones. Hypothyroidism is often the culprit.

Our goal is to enable our guests to enjoy a better quality of life by helping them obtain and maintain health and wellness naturally. This cannot be achieved by using or antidepressants, because low blood levels of Prozac, Effexor, Zoloft, or any other drug is not the problem. Good physical and emotional health requires hormonal balance. This can often be accomplished by replenishing the body with the same female hormones that it had to begin with, not drug company counterfeits.

## Maggie's Treatment

Maggie had been made to feel by her doctor that she was a hypochondriac and emotionally inadequate. We explained to her that her symptoms were very common to women in her age group and were easily treated. She had an imbalance in her female hormones that adversely affected her body¹s ability to use thyroid hormones. It was the change in her hormones that triggered her allergy disorder, which in turn led to recurrent sinus infections. The antibiotics which she had taken for her infections also killed normal bacteria in her body and allowed yeast problems to occur.

Maggie was prescribed Progesterone, Bi-est (estrogen), Testosterone, Armour Thyroid supplementation, and was treated for allergies with sublingual immunizing drops given under the tongue daily. Within two months, Maggie's depression and fatigue had disappeared. She was able to discontinue her antidepressants. She told us, "I have not felt this good in years. Thank you for giving me my life back."

If you want to get your life back, please contact us today at the Hotze Health & Wellness Center. It would be our privilege to serve you.

www.hotzehwc.com

Toll free: 877-698-8698

## **Yeast: The Fungus Among Us**

When I first began practicing allergy medicine in 1989, I quickly learned that unmanaged allergies could cause a downward spiral of worsening health. The inflammation that occurs with allergies causes sinus congestion, which promotes bacterial growth, leading to recurrent sinus infections, for which the usual treatment is antibiotics. While these powerful drugs do kill harmful bacteria, they also kill good bacteria that serve useful functions in our bodies. This often results in a new problem: an overgrowth of the yeast Candida albicans.

Yeast overgrowth, a condition called candidiasis, can affect virtually any organ in the body, causing symptoms as varied as abdominal pain and headaches, fatigue and skin rashes, immune suppression and chemical sensitivity, and depression and joint pain. It's no wonder patients with unmanaged allergies eventually come to feel "sick all over." Nine times out of ten, I find that frequent antibiotic use and the resulting overgrowth of yeast is a major factor in their declining health.

### **Facts About Antibiotics**

- Doctors write about 100 million antibiotic prescriptions a year.
- Two of the top ten drugs prescribed in 2003 were antibiotics.
- A report by the National Institute of Medicine found that up to 50 percent of antibiotics are prescribed needlessly.
- Even if you've never taken antibiotics, you're likely to have ingested traces of them in dairy products and meat.
- Women are eight times more likely than men to be affected by yeast overgrowth. Higher antibiotic use (for bladder infections and

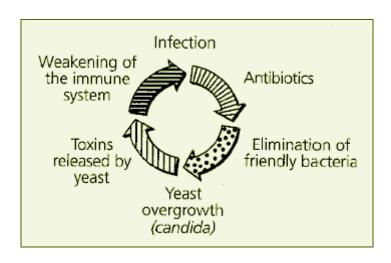
treatment of acne) and the use of synthetic estrogen and birth control pills increase the risk for women.

## **Antibiotics Are No Magic Bullet**

Though antibiotics are powerless against allergies and the viruses that cause colds, they are usually effective in treating acute bacterial sinus and bronchial infections. However, it isn't always easy to tell whether a patient is suffering from an allergic episode, a cold, or a sinus infection. As a result, physicians often prescribe antibiotics "just in case."

In addition, many physicians do not always differentiate between acute and chronic sinus infections before writing a prescription for an antibiotic. Yet a recent Mayo Clinic study found that most chronic sinus infections are not caused by bacteria, but by an immune system response to a fungus. Because antibiotics are effective only against bacteria, prescribing these drugs for a chronic fungal sinus infection is not appropriate.

Despite warnings about the development of antibiotic-resistant bacteria, physicians aren't prescribing fewer antibiotics. In fact, in one recent seven-year period, the number of antibiotic prescriptions written for sinus infections more than doubled. While antibiotic overuse is a serious public health issue, it is also an extremely important personal health issue. My office is filled with the records of patients who have been made ill by overuse of these drugs.



Antibiotics destroy good bacteria along with the bad, allowing yeast to proliferate in the digestive tract and vagina. Toxins released by yeast enter the bloodstream and impair immunity. Weakened immunity contributes to recurrent infections, leading to frequent antibiotic use, perpetuating the cycle.

# **Antibiotic Shotguns**

As newborns, our large intestines are colonized by beneficial bacteria with tongue-twisting names like Lactobacillus acidophilus and Bifidobacteria bifidum. These bacteria, acquired from our mothers as we pass through the birth canal, perform a number of useful functions in our bodies. They manufacture B vitamins, aid in the digestion and absorption of food, and serve as sentries to help keep harmful bacteria at bay. Besides coexisting peacefully in the colon, beneficial bacteria also reside in the mucous membranes of the throat and in the vagina.

Antibiotics are more like shotguns than rifles, causing widespread damage rather than a clean hit. When you take a course of antibiotics, populations of all bacteria plummet—not just the harmful ones that are the target of the drug, but also the beneficial ones that keep you healthy. At the same time, yeast populations increase because they are not harmed by antibiotics that kill their normal bacterial competitors.

The effects of yeast overgrowth are wide-ranging. In the digestive tract, yeast can cause symptoms of cramping, bloating, constipation, and diarrhea. Women who take repeated courses of antibiotics often develop vaginal yeast infections as healthy bacteria are destroyed and candida proliferates. As yeast toxins are absorbed in the colon and enter the bloodstream, they cause symptoms beyond these sites. Fatigue, depression, inability to concentrate, headaches, muscle aches, joint pain, hives, skin rashes, athlete's foot—the list of yeast-related symptoms goes on and on.

Even worse, yeast produces toxins that depress your immune system, making you more reactive to allergies and more susceptible to infections. This often leads to more frequent use of antibiotics, the killing of more good bacteria, and more yeast overgrowth. This vicious cycle is hard to break. Sadly, it is a problem of which many mainstream physicians are completely unaware. Instead of addressing the underlying cause of their patients' poor health, they treat the individual symptoms, usually with the familiar "anti" drugs: antibiotics, antihistamines, antidepressants, anti-inflammatories, antispasmodics, and so forth.

## **Diagnosing Candidiasis**

In my office, all new patients are given a blood test to measure levels of candida antibodies. While high levels of antibodies are indicative of yeast overgrowth, some patients with a severely depressed immune system do not respond appropriately to candida and instead show normal or even low levels of antibodies. For this reason, and because laboratory tests provide only a snapshot of a patient's health status, I rely much more on the patient's history and symptoms to determine the likelihood and extent of a yeast problem.

Each patient is asked questions relating to their history of infections and other illnesses, their diet, the symptoms they are experiencing, and their past and current use of antibiotics and other prescription drugs. For example, although antibiotics are the worst culprit in yeast syndrome, I also ask patients about their use of steroids and, in females, their use of birth control pills and estrogen. These drugs are known to stimulate yeast growth.

A history of recurrent infections is common in patients with candidiasis. The toxins produced by yeast impair immunity, as do the antibiotics prescribed to treat bacterial infections. A worsening of allergy symptoms, or the development of an allergy to yeast, can also occur in response to yeast overgrowth. Patients who used to tolerate alcohol might begin experiencing abnormal reactions such as flushing, headaches, sinus congestion, or itching skin. Sensitivity to tobacco smoke, perfumes, and other airborne chemicals may also develop.

Patients with yeast syndrome often crave sugar, bread, and other starchy foods. The reason? Yeast grows on sugar and on any food

that can quickly be broken down into sugar. Cravings for sugar are both the cause and consequence of yeast overgrowth and are a primary target of treatment.

Yeast syndrome is a condition with multiple causes and multiple effects. For this reason, no single intervention will be effective in getting yeast under control, restoring the normal balance of healthy bacteria in the body, and restoring health. I have found that the most effective way of treating candidiasis is a three-pronged approach: eradicate, eliminate, and repopulate.

Although I will talk about these steps as if they occurred in sequence, in reality you must undertake all three simultaneously in order to overcome this systemic illness and regain your health.

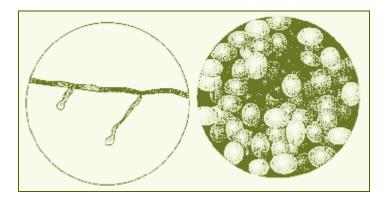
## Solution: It's As Easy As 1-2-3

#### **Step One: Eradicate**

No garden can flourish if it has been overrun with weeds. Likewise, your body cannot function normally if it has been overtaken by yeast. Eradicating yeast is a crucial step in restoring health not only to your digestive tract but also to your entire body.

While there are over-the-counter agents such as garlic and caprylic acid that are helpful for eliminating yeast, my experience in treating thousands of patients with candidiasis has led me to believe that a more aggressive approach is necessary. In my office, most patients with candidiasis are prescribed an antifungal drug called nystatin. This drug has been in use for over fifty years and is a safe, effective agent for eradicating yeast in the colon. It is not absorbed systemically, and it does not affect the beneficial bacteria that normally inhabit the colon.

Patients stay on nystatin for one to three months or longer, depending on their symptoms and yeast antibody levels. Because nystatin only kills yeast in the spore form and its effects are confined primarily to the colon, we also prescribe a one- to two-week course of a systemic antifungal medication called Diflucan (fluconazole). This helps ensure that yeast cells in the mycelial stage are eradicated from the mucous membranes throughout the body.



(*Left*) Yeast mycelium. This filamentous, branching form of candida is capable of burrowing beneath the surface of cell membranes and traveling through the bloodstream.

(**Right**)Yeast spores (also called blastospores). The single-celled form of candida is usually confined to the surface membranes of the colon and vagina.

Vaginal yeast infections are a common consequence of antibiotic overuse and candidiasis. Rather than using over-the-counter treatments that contain irritating chemicals, our patients are instructed to make a douche using three capsules of nystatin and three capsules of a Lactobacillus acidophilus supplement in warm

water. Douching twice daily for two to three days usually eradicates the infection.

Onychomycosis, a fungal infection affecting the nails, is another common consequence of candidiasis. Because the most common prescription drugs for this condition, which are taken orally, are very hard on the liver, I rarely recommend them. A far safer treatment is topical tea tree oil (Melaleuca alternifolia), which is effective not only for nail infections but also for fungal skin infections such as jock itch and athlete's foot. A 1994 study published in the Journal of Family Practice found that topical tea tree oil was as effective as the oral prescription drug Lotrimin (clotrimazole) in clearing up nail fungus. I recommend an even more effective topical preparation, which combines tea tree oil with liquid Diflucan (fluconazole) and DMSO. This combination solution, which is applied topically to the toenails daily, penetrates the nails and kills the fungus. It takes several months of use to eradicate nail fungus. The longer it has been present, the harder it is to treat effectively.

#### **Step Two: Eliminate**

Eradicating the yeast that is already present is only one element of a successful candida treatment program. You must also prevent yeast from regaining a foothold in your body.

Otherwise, while you may win the battle, you ultimately will lose the war.

To grow, yeast requires a specific environment—a moist, dark place with a constant food supply. This is a perfect description of your gastrointestinal tract. Fortunately, discouraging the growth of yeast doesn't mean that you have to go on a thirty-day fast. It does mean that you have to radically change your diet for at least this length of time in order to prevent yeast from growing.

The yeast-free, grain-free diet that I recommend eliminates dietary sources of yeast and other fungi, vinegar and fermented products, and sugar and carbohydrate-rich foods that provide nourishment to yeast. Here are the basics.

#### Yeast-Free Eating Program

These foods are permitted throughout the one-month yeast-free eating program:

- Meats (chicken, beef, turkey, pork, lamb, venison, seafood)
- Vegetables (limit starchy vegetables such as squash, corn, carrots, etc.)
- Dried beans (black, red, kidney)
- Eggs (boiled, poached, scrambled, or fried with olive oil)
- Oatmeal (slow cooking; in recipes only)
- Lemons and limes
- Avocados
- Black olives
- Cold-pressed extra-virgin olive oil
- Nuts and nut butters
- · Herbal teas
- Regular coffee and tea

For one month, avoid the following:

- Sugar and artificial sweeteners (aspartame, saccharin)
- Fruit juices, grapes, and bananas
- Breads, cereals, and baked goods
- Grains (corn, wheat, rye, millet, rice, barley)
- Potatoes
- Milk and milk products (cheese, yogurt, sour cream, ice cream)
- Soft drinks and decaffeinated beverages
- Wine, beer, and spirits

- Vinegar and products containing vinegar (pickles, green olives, salad dressings, soy sauce, mustard, mayonnaise, ketchup, etc.)
- Mushrooms
- Vegetable shortening, margarine, and partially hydrogenated oils

After two weeks, you may add:

- Fruits (except fruit juices, grapes, and bananas)
- Butter

Eliminating sugar can be the most difficult part of this diet, in part because so many foods contain added sugar. In addition to cane sugar and beet sugar, you will have to steer clear of honey, corn syrup, maple syrup, molasses, fruit sugar (fructose), milk sugar (lactose), and malt sugar (maltose), because yeast grows on sugar. Refined grains and starchy foods such as bread, pizza, pasta, cereal, potatoes, and rice are also off limits, because they can be quickly broken down into simple sugars.

Once you have successfully killed off the yeast through the use of antifungal medication and the yeast-free, grain-free diet, you can bring some of the foods back into your diet on a rotational basis.

#### **Step Three: Repopulate**

As I've mentioned several times in this chapter, the reason yeast gains the upper hand in patients who have taken antibiotics is that these drugs destroy healthy bacteria along with the harmful ones. Step three of this comprehensive anti-yeast program is to repopulate the colon with the beneficial bacteria that normally reside there.

This is easily accomplished by taking supplements of probiotics, including Lactobacillus acidophilus, Bifidobacteria bifidum, and other friendly bacteria. This is a must for patients with candidiasis,

but whether you suffer from yeast overgrowth or not, taking a course of probiotics is also good preventive medicine whenever you're required to take an antibiotic for a bacterial infection.

#### A Word About "Yeast Die-Off"

Paradoxically, some patients begin to feel worse, not better, when they begin the anti-yeast program. Though this can be a disturbing experience, it is actually a sign that the treatment is working. These symptoms are the predictable result of yeast die-off, also called the Herxheimer reaction. When large numbers of yeast cells die in a short period of time, the body has a difficult time detoxifying them quickly. As a result, yeast toxins enter circulation and can cause symptoms in the mucous membranes that cover the surfaces of most organs in the body, including the mouth, esophagus, stomach, intestines, sexual and urinary organs, sinuses, ears, and bronchi.

Each person's die-off reaction is different. In some patients, preexisting symptoms are exacerbated; in others, new symptoms appear. Symptoms can last anywhere from several days to two weeks. In some cases, reducing the dosage of nystatin is appropriate to slow down the die-off process and lessen the symptoms. Following the yeast-free, grain-free diet is critical to helping you weather this period.

Another measure that has proven helpful in our clinic is supplementing with sodium bicarbonate (baking soda) and potassium bicarbonate, which help neutralize the effects of toxins that are released by dying yeast cells. Try an 8-ounce glass of water with a tablespoon of baking soda. Over-the-counter Alka-Seltzer Gold is another option.

A diet high in simple carbohydrates, like bread products, and high in sugar can become addictive. When these are eliminated from the diet, withdrawal symptoms, similar to the symptoms of yeast die-off often occur. Be patient. This too will pass.

## Case Study – Jenny's Story

#### **Physicians Ignore the Obvious**

Jenny was a thirty-one-year-old woman who came to my office on her mother's advice after suffering years of progressively worsening health. Jenny had severe allergies and recurrent respiratory infections and had been on antibiotics for two years straight. A year before she consulted me she had undergone surgery for endometriosis. Jenny's gynecologist told her afterwards that she had the worst case of yeast overgrowth in her abdominal cavity that he had ever seen. Jenny was shocked when she saw the photos. Jenny's gynecologist did not tell her that the antibiotics she had been taking were the cause of her yeast problem, nor did Jenny's dermatologist, who prescribed antibiotics for her acne. By the time I saw Jenny, her yeast antibodies, measured by a blood test, were three times higher than normal. The symptoms she described were classic indicators of chronic candidiasis: abdominal pain and bloating, recurrent vaginal yeast infections, extreme fatigue, depression, and "brain fog." She told me that she was so exhausted she felt twice her age.

It was clear when I examined Jenny and reviewed her medical history that there were other factors contributing to her poor health. However, her severe yeast overgrowth was an immediate concern. Like the weeds that can destroy a flourishing garden, Jenny's overgrowth of yeast was depleting her energy, weakening her resistance to disease, and causing both physical and mental

suffering. Restoring the normal balance of bacteria in her digestive tract was our number one priority.

#### Jenny Got Her Life Back

If you have been suffering with chronic yeast overgrowth, this comprehensive anti-yeast program can yield rapid and sometimes surprising improvement in your physical and psychological well-being. Jenny, whose yeast overgrowth was the worst her gynecologist had ever seen, can attest to this. In six weeks on the yeast-free, grain-free diet, she lost ten pounds. As the populations of yeast in her body declined, her depression lifted, her ability to concentrate improved measurably, and her cravings for bread and sweets subsided. She began sleeping normally and awakened refreshed and eager to start the day.

In a recent follow-up interview, Jenny expressed excitement about the tremendous health gains she had achieved in just six short weeks. "My life was being taken away from me because of my poor health. To think that my life has been given back to me that quickly is just amazing. I'll be entering the seminary this fall, and I'm excited about the coming two years because I actually have an attention span, and I can concentrate on doing what I'm supposed to do."