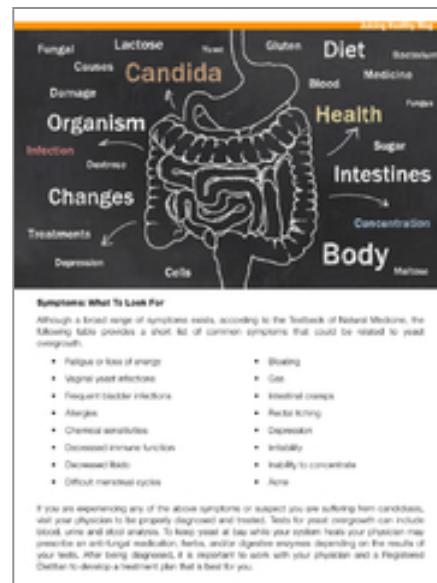


'Tis the Season for Candidiasis: The Not-So-Sweet Side of Sugar

With the holidays in full swing, we often give ourselves free rein to indulge in everything sugared, jellied, candied, and chocolate-covered. Once the New Year arrives, we'll give our full attention to eating healthier again. You may want to reconsider this mindset. Your holiday sweet tooth may be responsible for more than just a little Christmas weight gain. It also may be contributing to fatigue, decreased immunity, and tummy troubles to name a few.



What is Candida?

Candida albicans, or simply candida, is a yeast or type of fungi that resides naturally on the body's surface as well as in the digestive tract, mucous membranes and vaginal canals (of women). Along with beneficial bacteria, and even some pathogens, these microorganisms make up a fascinating microbiome that harmoniously live together and provide many benefits to your body. Housing trillions of microbes of varying species, this community provides our body with immune protection, aids in digestion along with nutrient absorption, and may even influence communication between neurons that attenuate negative emotions such as anxiety.

Candidiasis: Creating the Perfect Storm

A significant function of the human microbiome is keeping balance within the body. To understand this better, let's consider the analogy of a family holiday party. Every family member has his or her own job. Year after year, Aunt June brings the dessert, cousins Brad and Maple help with clean up, and Dad makes sure Grandma doesn't get into the eggnog. With each member of the family present, the party runs smoothly. Similarly, our little organisms keep each other in check and hence, the body stays in a state of balance, which is exactly where it likes to be. But what happens when the body reaches a point of imbalance?

Imbalances in our guts can easily manifest when our immune system is weakened, if the mucosal lining of our digestive tract is damaged, or when an unhealthy diet high in sugar and refined carbohydrates creates the perfect environment for yeast to thrive and exponentially multiply. This is known as yeast overgrowth or candidiasis and may leave the body vulnerable to infection, malnutrition, and energy depletion.

Many conditions may lead to yeast overgrowth. Below is a list of common causes that alone or together can create the perfect environment for yeast to thrive.

- Broad-spectrum antibiotic use
- Steroid medication use
- Eating disorders
- Malnutrition (specifically low levels of zinc, iron, vitamin K, and B-complex vitamins)
- Weakened immune system
- Smoking
- Poor oral hygiene
- Diabetes mellitus
- Diet high in sugar and refined carbohydrates

Statistically, women are eight times more likely to develop candidiasis than men due to hormones, oral contraceptives, and more frequent antibiotic use. As a woman, this may seem like the odds are stacked against you but remember knowledge is power. Learning how to identify possible symptoms of yeast overgrowth and taking steps to protect yourself is essential.

Symptoms: What To Look For

Although a broad range of symptoms exists, according to the *Textbook of Natural Medicine*, the following table provides a short list of common symptoms that could be related to yeast overgrowth.

- Fatigue or loss of energy
- Vaginal yeast infections
- Frequent bladder infections
- Allergies
- Chemical sensitivities
- Decreased immune function
- Decreased libido
- Difficult menstrual cycles
- Bloating
- Gas
- Intestinal cramps
- Rectal itching
- Depression
- Irritability
- Inability to concentrate
- Acne

If you are experiencing any of the above symptoms or suspect you are suffering from candidiasis, visit your physician to be properly diagnosed and treated. Tests for yeast overgrowth can include blood, urine and stool analysis. To keep yeast at bay while your system heals your physician may prescribe an anti-fungal medication, herbs, and/or digestive enzymes depending on the results of your tests. After being diagnosed, it is important to work with your physician and a Registered Dietitian to develop a treatment plan that is best for you.

Nutrition: Regaining Your Balance

In conjunction with the appropriate treatments, improving your diet is one of the greatest things you can do to **create an environment unsuitable for yeast overgrowth**. The following guidelines will help nourish your body, regain your balance and prevent the recurrence of candidiasis.

Avoid Sugar & Refined Carbohydrates

Recall how yeast flourish in a sugary environment. Once foods high in sugar and refined carbs are removed, the yeast no longer have anything to feed on, making it difficult to thrive. Sweets, desserts, baked goods, and even foods with a naturally high sugar content like dried fruit along with starchy vegetables like potatoes should be avoided during this time.

Although artificial sweeteners are given attention as the better alternative to natural sugar, several studies offer evidence to the contrary. In a study published by the *Journal of Toxicology and Environmental Health*, consumption of the well-known artificial sweetener, Splenda® was found to reduce the number of beneficial gut bacteria in animal studies. When beneficial gut bacteria decrease and balance is disrupted, this may put a person at risk for yeast overgrowth. Additionally, the *Yale Journal of Biology and Medicine* found the consumption of artificial sweeteners to be associated with weight gain.

Limit or Eliminate Dairy

Milk and other dairy products have naturally occurring sugars (lactose) and are also frequent food allergens. Moreover, unless buying organic, small amounts of antibiotics may exist in milk and milk products. This could further disturb already fragile gut bacteria. By avoiding a potential allergen and decreasing foods that feed an existing condition, you are helping to rid your body of yeast.

Avoid Foods with a High Yeast Content

Although some people who are experiencing candidiasis may be able to tolerate yeast or mold-containing foods, eliminating them at least until your body has healed is considered to be safest. These foods include alcoholic beverages, peanuts, cheeses, and melons.

Eating a Whole Foods Diet

Eating more whole foods and avoiding the processed junk will help boost your natural immunity, enabling your body to keep natural yeast levels in check. Whole foods examples include fiber-rich vegetables, fruits (due to natural sugar content, try to limit to two servings/day), legumes, nuts, seeds, whole grains, fresh herbs, and spices. If you consume animal protein, make sure that it is organic and antibiotic-free. Eating whole foods will replenish your body of vitamins and minerals that may have been depleted due to yeast overgrowth. Additionally eating a nutrient-dense diet can better help protect your body from opportunistic infections.

Beneficial Supplements

Although eating a varied whole foods diet should take care of the majority of your nutrient needs, when a person is experiencing low immunity and systemic imbalance, supplements may help the body to heal faster. Before taking any supplements, it is important to first discuss these matters with your physician.

Multi-Vitamin with Mineral Supplement

Consider taking a multivitamin as having an insurance policy. On busy days when you aren't able to fit in vitamin C-rich foods, for example, a multivitamin has you covered. Please note that taking a multivitamin should be treated as a **supplement** to the healthy diet you are already eating and should never be treated as a substitute.

Fiber + Water = Happy Bellies

A diet that is high in fiber will support healthy digestion, feed beneficial gut bacteria, and aid in the elimination of dead yeast cells and spores. When treating yeast overgrowth, 3-5 g/day of soluble fiber is recommended. If you cannot get this amount of fiber through your diet, a psyllium seed, pectin, kelp, or other plant gum supplement may be beneficial. When increasing your fiber intake, drink adequate amounts of water to ensure healthy and regular digestion.

Probiotics

When intestinal bacteria are compromised, as may occur when experiencing yeast overgrowth, it may be advantageous to take a probiotic supplement. When looking for a probiotic, seek **refrigerated products** that contain *Lactobacillus acidophilus* and *Bifidobacterium bifidum*. Probiotics have been seen to offer relief especially when experiencing symptoms such as digestive distress, vaginal yeast infections, and urinary tract infections. They are also beneficial after taking antibiotics. Dosages of 5-10 billion CFUs per day are considered adequate. Amounts that surpass this dosage may result in GI discomfort.

Lifestyle

A healthy lifestyle, which includes avoiding alcohol, exercising regularly, aiming for around 8 hours of sleep per night, and finding ways to decrease stress will help heal the body and promote optimal immunity.

Especially around the holidays, avoiding stress may be difficult. According to a study published by *Brain, Behavior, and Immunity*, stress can directly impact the number and type of bacteria found in our intestine. When the number of beneficial gut bacteria is reduced, some of the mechanisms our body uses to handle stress are inhibited, thereby impacting overall immunity and balance. Less beneficial bacteria can leave a person more susceptible to yeast overgrowth and infection by harmful bacteria.

Finding healthy ways to decompress can be very valuable during this time. Going for short walks after meals, getting adequate sleep, reading your favorite book, journaling, etc.—whatever helps to de-stress your life will be most beneficial for you.

Holiday Healthy Eating Tips

Give Old Recipes a Healthy Makeover

Somehow holiday tables seem to fill up with everything glazed, creamed, and breaded. When healing the body from candidiasis, try to give traditional recipes a fresh makeover. Remember the creamy green beans topped with crunchy bits that somehow always make an annual appearance? Keeping the essence of traditional recipes but making them a little healthier will still wow your taste buds and your guests.

Lemon-Garlic Green Beans with Toasted Almonds & Sun-Dried Tomatoes

Makes: 8 servings

Approximate Prep Time: 20 minutes

Ingredients

1 cup almonds, chopped
2 pounds fresh green beans, cleaned and trimmed
2 tablespoons extra virgin olive oil
2 Garlic cloves, minced
Salt
 $\frac{1}{4}$ teaspoon red pepper flakes
2 tablespoons fresh lemon juice
5 Sun-dried tomatoes, diced
2 tablespoons fresh parsley, minced

Note: Unless you are planning to soak and soften sun-dried tomatoes beforehand, try to find jarred sun-dried tomatoes already in olive oil.

Procedure

Preheat the oven to 350°F. Spread the chopped almonds on a baking sheet. Bake for 10-12 minutes or until toasted, stirring occasionally, making sure they don't burn.

While almonds are toasting, steam the green beans for 1-2 minutes. Remove from heat. To a skillet over medium heat, add the oil and minced garlic. Allow the garlic to cook for 1 minute then add the green beans. Cook for an additional 4-5 minutes, moving the beans around the skillet, until they are cooked but still have bite. Season with salt and red pepper flakes.

Add the green beans and toasted almonds to a large serving dish. Drizzle with lemon juice and add the sun-dried tomato bits. Sprinkle with fresh parsley and toss to combine. Enjoy!

Nutrition per serving: 136 calories, 12 g carbohydrates, 9 g fat, 5 g protein, 152 mg sodium, 5 g sugar

Fill Your Plate with Green Fiber-Rich Veggies AND Eat Them First

Eating fiber-rich green veggies like kale, romaine lettuce, broccoli, and brussels sprouts will help fill you up faster, while slowing down the body's absorption of carbohydrates so that sugar levels will stay balanced. Vegetables are not only full of fiber but vitamins and minerals—nutrients necessary for favorable immune function, metabolism, and tissue repair.

Beware of Hidden Sugar

Always look at ingredient labels for hidden sugars and refined carbohydrates when buying foods. If you are attending a holiday party, be wary of products such as condiments, glazed meats, sweetened drinks and flavored coffee creamers that easily make their way onto dinner tables.

Rotate Your Beverages

When the body is healing itself from yeast overgrowth, alcoholic beverages should be avoided. If you find this difficult, try rotating your drinks. For every alcoholic beverage you consume, try drinking a fizzy festive soda water with a squeeze of fresh lemon juice. Although not the same as a cocktail, drinking sparkling water will help keep you hydrated, add to your water consumption for the day, and decrease overall alcohol intake.

The Healing Process

Completely healing from yeast overgrowth can take between five to six months but consider the positive changes in energy levels, overall comfort, and daily function you may experience once having regained your balance. It is important to implement a healthy diet and lifestyle throughout the year in order to avoid a recurrence of candidiasis and to achieve optimal mind, body, and spirit wellness.

References

- Abou-Donia, M. B., El-Masry, E. M., Abdel-Rahman, A. A., McLendon, R. E., & Schiffman, S. S. (2008). Splenda alters gut microflora and increases intestinal p-glycoprotein and cytochrome p-450 in male rats. *Journal of Toxicology and Environmental Health, Part A*, 71(21), 1415-1429. doi: 10.1080/15287390802328630.
- Back-Brito, G. N., José da Mota, A., de Souza Bernardes, L. A., Takamune, S. S., de Fátima Gomes Barbosa Prado, E., Cordás, T. A., Balducci, I., da Nobrega, F. G., & Koga-Ito, C. Y. (2012). Effects of eating disorders on oral fungal diversity. *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology*, 113(4), 512-517. doi: 10.1016/j.oooo.2011.10.007
- Bailey, M.T., Dowd, S.E., Galley, J.D., Hufnagle, A.R., & Lyte, M. (2011). Exposure to a social stressor alters the structure of the intestinal microbiota: implications for stressor-induced immunomodulation? *Brain, Behavior, and Immunity*, 25(3), 397. doi: 10.1016/j.bbi.2010.10.023.
- Pizzorno, J. E., & Murray, M. T. (2013). *Textbook of natural medicine* (4th ed.). St. Louis, MO: Elsevier Churchill Livingstone.
- Teodorescu, M. C., & Teodorescu, M. (2012). Tired and sick. *Sleep*, 35(1), 15-16.
- Yang, Qing. (2010). Gain weight by “going diet?” Artificial sweeteners and the neurobiology of sugar cravings. *Yale Journal of Biology and Medicine*, 83(2), 101-108.