

Intestinal Dysbiosis

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Intestinal dysbiosis is **an emerging medical term** for imbalances in the intestinal flora, a concept pioneered by holistic and naturopathic physicians. This is not to say the concept is new; herbalists have used this idea since ancient times - Hippocrates discussed the issue of bowel toxins as early as 400 B.C. And today it is **an intense area of research**. Think of the membranes lining your small and large intestines as your back yard. In this **analogy/truth**, the membranes are the soil, and the "good guy" bacteria that inhabit your intestinal tract are the grass. The "bad guys," or inappropriate bacteria, yeasts, worms or parasites, represent crabgrass that can take over parts of your intestinal lawn. All in all, scientists have identified more than 400 species of gut microflora, which number in the billions in the average intestinal environment, and can be weighed by the pound. The **good guys produce beneficial substances** including important natural antibiotic and immune-stimulating chemicals, and the bad guys can produce carcinogens, organic amines, and high levels of endotoxin (toxins released into the body when bacteria die). Poor digestion, poor food choices, inflammation, dampness, stress etc. favor intestinal flora imbalances.

Depending on the nature of the imbalance, problems can range from mild to extremely debilitating. It is very important to understand that the concept of dysbiosis refers to an imbalance in the whole gut ecology and not a single organism such as yeast - the gut is a community of organisms, and as such can only be treated in a comprehensive holistic fashion.

To start with, dysbiosis problems are extremely common, especially among women, and failure to properly diagnose and treat them can lead to a great deal of misery and frustration. Overuse of antibiotics is a common cause, but the stronger strains "superbugs" that now exist can enter the body in many ways - low stomach acid, contaminated food or water, overuse of sugar etc. A single tuna fish sandwich or other contaminated meal is all it might take to get this problem. The main symptoms are usually sugar, carbohydrate and bread craving, gas and bloating (less so or absent if bacterial as opposed to yeast or fungal), and a number of frustrating long-lasting problems, especially fatigue, sore muscles and "brain fog." However, depending on the nature of the imbalance, any of these common symptoms may be less or more. This variability, depending on the offending "critters", digestive power, intestinal wall integrity etc. is often the basis of missed diagnosis. Depression and chronic fatigue can also occur, for example, leading to incorrect diagnosis and treatment. Often the tongue is pale or blue due to oxygen deprivation caused by the dysbiosis. Some of the organisms in question become more active at night, in which case sleep is disturbed and often the symptoms are much worse upon awakening (stiff, sore, foggy). Getting hot at night often happens. Note that dysbiosis can sometimes occur in conjunction with gluten tolerance problems, and may mimic a gluten sensitivity. In many cases, treating the dysbiosis can reduce or even eliminate the gluten sensitivity if it is not full blown celiac disease.

In my experience, untreated dysbiosis can be a causative factor that needs to be treated and eliminated

first in a multiplicity of difficult disease conditions in order to achieve good results with the primary condition. These include but are not limited to thyroid problems, eye inflammation or irritation, emotional issues such as anger, depression or nervousness, chronic mouth and sinus problems (sometimes with red burning tongue), acid reflux, chronic vaginal yeast, urinary tract, bladder or prostate irritation/infections, chronic fatigue, chronic swelling, various forms of hormonal depletion, sleep disturbance, weight gain (due to strong sugar cravings) food allergies, autoimmune diseases, chronic digestive problems such as colitis, IBS, constipation and/or diarrhea, fibromyalgia, skin diseases such as eczema, acne, hot inflamed itchy skin, hives, liver problems, headaches (including chronic), progesterone and estrogen imbalances and related hormone problems, asthma issues, blood pressure changes, burping, bad breath and/or body odor, mouth or sinus infections, toenail fungus, joint pain, lowered sex drive, fatigue after eating and many others.

How the Bad Guys Infest Your Intestinal Lawn

Some of the more common bad guys include Klebsiella, Proteus, H. pylori, Giardia, Pseudomonas, Citrobacter and Cryptosporidia, among others. While a full blown infection is much more obvious and serious (even fatal), dysbiotic imbalances can involve multiple organisms in relatively small amounts. Doctors, for example will often see thrush in the throat and mouth after antibiotic treatment. Dysbiosis often occurs after long periods of weak or compromised digestion. When digestion is compromised, hydrochloric acid, pepsin, or pancreatic digestive enzymes are low and they fail to sterilize food entering the system. As often occurs in elderly patients, this allows the bad guy crabgrass to begin to seed your intestines.

Other causes of intestinal dysbiosis include weakened immunity, alterations in intestinal pH, infections and exposure to chemicals. The small intestine is normally relatively free of bacterial overgrowth, but bad guys can also colonize this area. As abnormal fermentation increases, the symptoms such as gas, bloating, and diarrhea begin to emerge. Over time, as the mucosal barrier erodes, toxins enter the bloodstream there may be allergy, loss of mental clarity, moderate to severe fatigue, inflammation and muscle pain. This is a very real and frustrating problem for patients that conventional physicians often overlook. In severe cases it can even be debilitating. For example, as I mentioned, it is one of the hidden causes of chronic fatigue syndrome.

Overuse of antibiotics can kill off the good guy bacterial population, resulting in a favorable environment for bad guy crabgrass growth. Dysbiosis imbalances are often easy to diagnose when patients produce an unusually high level of gas that often distends the stomach dramatically. These infections can also cause patients to wake up during the night during periods when they feel extremely hot, almost as if they are experiencing extended hot flashes. The heat produced by the bad guy organisms can also inflame and dry the intestines, causing constipation.

The Good Guys Fight Back

Good guy bacteria, especially Lactobacillus acidophilus, Bifidobacteria and Escherichia coli, typically inhabit the large intestine. These bacterial species have been used as medicines (in pill form) since the discovery of their beneficial properties in 1908. They are traditionally found in fermented foods such as

yogurt and miso soup, historically lauded for their many health benefits.

Lactobacillus and Bifidobacteria adhere to the cells of the intestinal epithelium and contribute to the equilibrium of gut flora. Because they are positive in action, they are called probiotics (pro-life), as opposed to antibiotics (anti-life). They help conjugate bile acids and antagonize other bacteria, especially the harmful ones that can lead to bowel toxemia, a precursor to skin conditions, cancers, fatigue and various forms of inflammation. They also reduce incidence of intestinal infections, diarrhea and urinary tract infections (UTIs). Recent studies show it to be useful for management of food allergies by improving gut wall integrity, and controlled studies show that consumption of Acidophilus capsules is beneficial during antibiotic treatment to restore intestinal flora and reduce diarrhea (Vanderhoof et al., 1999). In an article in the [American Journal of Gastroenterology](#), a doctor at Johns Hopkins Medical Center in Baltimore, Maryland stated that " . . .it is clear probiotic agents are becoming an important part of the armamentarium against gastrointestinal problems in infants and children (Saavedra, 2000).

Treatment

I use a simple strategy for dealing with this problem, based largely on [Dr Crook's pioneering work](#) with Candida (yeast) infections (Crook, 1992). I do not initially differentiate between the different bacteria or yeast species (true yeast infections are rare and extremely severe). I simply administer an effective bad-guy killer herbal formula during the day, using **neem leaf**, **oregano leaf** or others combined with good-guy probiotics at bedtime. The herb **wormwood** (*Artemisia annua*) is also very good for parasites, using one 500 mg. capsule twice a day. However, the most effective remedy is an Ayurvedic combination taught to me by Dr. Mana which I prepare at my clinic called DMA pills - it requires a strong concentration of several herbs in exact proportion to balance the action on the digestive system.

These are administered for days, weeks but seldom for longer than two months, unless at reduced dosage. In addition, I starve the bad guys out by depriving them of their favorite food—sugar—instructing the patient to avoid all cake, pie, candy, fruit and fruit juice, and to lower dietary intake of complex carbohydrates from grain sources. Regular consumption of vegetables, oils and proteins of all sorts is still allowed. This highly successful program (if the diagnosis is correct) usually reduces symptoms within a few weeks, if not days.

The only difficulty is convincing people that they must give up all sugars and breads during the treatment, and that there can be a temporary worsening of symptoms -- the Herxheimer reaction or "die-off" syndrome that lasts for a few days up to a week or so. Those who fail to understand these two points usually cannot get better. I always feel saddened when people cannot stand a few days of discomfort in return for years of health, or when the idea of stopping sugars and breads for a few months scares them away.

In the old days, I prescribed this protocol alone and perhaps six of my initial patients who had suffered for years thought I was a miracle worker. However, my God-like status would soon change when the problem recurred several months later. In hindsight, it is obvious that it is absolutely necessary to treat the underlying problems, not just the organisms, to create lasting results. Now I work with patients for a couple of months during or after initial eradication of bad guy organisms to strengthen and balance the

GI system -- digestion, elimination, food choices, food allergies etc -- following the various protocols outlined in this section of the website. This results in long-term benefits for most patients. If symptoms do not clear, there is the possibility that a particularly nasty microbe or parasite is involved, and it then becomes necessary to send the patients for stool tests at a good laboratory (see resource guide).

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