

What is Dysbiosis?

Dysbiosis is the term used to describe the overgrowth of destructive, disease causing microbes that colonize within the gut. These microbes include harmful bacteria such as E. coli and salmonella, parasitic pathogens such as giardia, blastocytosis and cryptosporidium, as well as fungi due to toxic mold exposure and Candida, a fungal-like yeast. *Simply put - dysbiosis is the net result when the balance is disturbed between the "gut friendly" flora and these harmful microbes, with the latter becoming more populated.*

Dysbiosis can exist in the oral cavity, the gastrointestinal (GI) tract, or vaginal cavity. In GI dysbiosis, organisms such as yeast, bacteria, and parasites induce disease in the following ways:

1. Inhibiting normal bacteria which creates nutrient deficiencies, leading to subsequent systemic issues.
2. Causing inflammation in the GI tract, compromising absorption and contributing to deficiencies of macronutrients like proteins, carbs, and fats.
3. Producing toxins. Harmful bacteria create toxins and inhibit normal bacteria from detoxifying the bowel. Toxins can put undue stress on the liver and the body's detoxification system, affecting every bodily function at a cellular level.
4. Lowering the levels of short chain fatty acids, thus, increasing the risk of colon cancer and ulcerative colitis (UC).
5. Irritation of the intestinal lining >> increased intestinal permeability >> LEAKY GUT
6. Depleting various amino acids and Vitamin B12.
7. Contributing to the development of IBD (Inflammatory Bowel Disease) i.e., Crohn's Disease and Ulcerative Colitis.
8. Interfering with the breakdown of bile acids and estrogens, increasing the risk of certain cancers.

Clinical Signs & Symptoms of Dysbiosis

1. Unexplained abdominal symptoms and generalized tenderness of the abdomen on palpation
2. Frequent bowel movements
3. Intolerance to: sugar, starchy foods, fiber, or friendly flora supplements
4. General flatulence (usually odiferous)
5. Bloating within an hour of a meal
6. Constant fatigue
7. Itchy ear canals (indicates possible Candida overgrowth)
8. White matter on the ear drum upon examining the ear
9. Eczema or Seborrheic Dermatitis behind ear (indicates possible Candida overgrowth)

Common Causes of Dysbiosis

1. Antibiotic use
2. Hypochlorhydria (low levels of chloride)
3. Presence of xenobiotics like harmful chemicals and heavy metals
4. Exposure to pathogens/parasitic infections
5. Pancreatic insufficiency
6. Slow bowel transit time
7. Poor immune function and low intestinal secretory IgA
8. Nutrient deficiencies
9. A diet low in fiber
10. Increased pH of the intestinal tract
11. Stress
12. Dietary choices



Diseases & Disorders Linked to Dysbiosis

1. Chronic GI issues like IBS and IBD
2. Inflammatory or autoimmune disorders such as Ankylosing Spondylitis (AS), fibromyalgia, and other inflammatory arthritides
3. Food allergies and sensitivities
4. Breast and colon cancer
5. Chronic Fatigue Syndrome
6. Malnutrition
7. Atopic eczema
8. Pancreatic insufficiency
9. Intestinal hyperpermeability (leaky gut syndrome)
10. Candidiasis
11. Endocarditis (inflammation of the heart lining)

Treatments for Dysbiosis

Conventional Medicine Approach

Dysbiosis is not usually recognized by most Western medicine practitioners. Bacterial overgrowths are usually treated with antibiotics. This may provide temporary relief, but it is paramount to restore normal gut flora with probiotics. Parasitic infections are usually treated with Flagyl (Metronidazole) or Diflucan (Fluconazole).

Functional Medicine Approach

Personalized treatment tailored to the individual patient is the ultimate goal in functional medicine. Treatment is based on identifying and restoring the abnormal objective functional markers specific to the disease in question.

Some Common Natural Remedies for Dysbiosis

1. Olive Leaf Extract: an excellent antimicrobial agent that can help fight viral, bacterial, fungal, and parasitic infections.
2. Oil of Oregano
3. Black Walnut
4. Goldenseal
5. Bayberry

The Ultimate Goal - Restore Normal Gut Flora

Dysbiosis infers that there is a buildup of pathogenic microorganisms in the gut that are out-competing the "friendly" or beneficial bacteria. Replenishing healthy bacteria is one of the best ways to repopulate the gut microbiome and decrease the amount of pathogenic bacteria.

The best way to do this is to supplement with probiotics. Bringing the normal gut flora back into balance will help prevent overgrowth of the pathogenic bacteria in a process known as competitive inhibition. The two main types of bacteria in the gut are Lactobacilli and Bifidobacteria, with the latter being present in much higher concentrations. Bifidobacteria help to reduce certain species of toxic bacteria like Clostridia and Enterobacter