

Comprehensive Stool Analysis

Key to Maintaining a Healthy Digestive System

The Importance of the Comprehensive Stool Analysis

Many chronic disorders result from digestive problems and inadequate nutrient absorption. Even with a very complete and balanced diet, nutrients have to be properly digested to transport vitamins to different parts of the body. Proper gastrointestinal functioning also ensures elimination of toxic molecules, microbes and undigested food particles from the body, which helps prevent infections, toxic reactions, allergies, and other health problems.

The role of abnormal intestinal microorganisms in gastrointestinal disorders is widely known. However, research also shows the relationship between the gastrointestinal and other systems in the body, such as the neurological, hepatic, and immune systems. For example, excessive yeast produces toxic metabolites, which can pass through the blood-brain barrier and alter neurological functioning, causing "brain fog," behavior problems, and learning difficulties. Exposure to certain pathogens can cause the formation of antibodies that can interfere with the brain in predisposed individuals, causing problems with motor function. Excess of toxic by-products of certain bacteria can interfere with neurotransmitters and cause fatigue. Beneficial bacteria, on the other hand, helps with vitamin absorption and infection prevention.

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Comprehensive Stool Evaluation Will Give You Specific Information About The Following Digestive Criteria

- Digestion of nutrients (chymotrypsin, triglycerides, muscle fibers, vegetable fibers)
- Absorption of nutrients (cholesterol, carbohydrates, steatocrit %)
- Elimination efficiency of undigested food residues and toxins
- Levels of healthy bacterial flora versus potentially pathogenic bacteria species, yeast, and parasites
- Culture and sensitivities of pathogenic yeast and bacteria
- Infectious pathogens (EIA evaluation for Campylobacter, Enterohemorrhagic E.coli cytotoxin, Giardia lamblia, and Cryptosporidium)
- Indices and markers of intestinal immune function (fecal sIgA)
- Indices and markers of inflammation (lysozyme and lactoferrin levels)
- Indices and markers of intestinal physiology and of intestinal health (presence of RBC, WBC, mucus, occult blood, fecal pH, and short chain fatty acids analysis)

About the Test

The Comprehensive Stool Analysis detects the presence of pathogenic yeast, parasites, and bacteria, which could be contributing to chronic illness and neurological dysfunction. It provides information about prescription and natural products that may be effective against specific microorganism strains detected in the sample. The test also evaluates beneficial bacteria levels, intestinal immune function, overall intestinal health (presence of occult blood, short chain fatty acids analysis, pH, mucus, and other criteria), and markers for inflammation.

Sample Report

The Great Plains Laboratory, Inc. LAB #: F120405-0035-1
 CLIENT#: PATIENT: ID: SEX: Male AGE: 6
Comprehensive Stool Analysis / Parasitology x2

BACTERIOLOGY CULTURE		
Expected/Beneficial flora	Commensal (Imbalanced) flora	Dysbiotic flora
4+ Bacteroides fragilis group 2+ Bifidobacterium spp. 4+ Escherichia coli 2+ Lactobacillus spp. 2+ Enterococcus spp. 1+ Clostridium spp. NG = No Growth	2+ Bacillus spp 2+ Enterobacter cloacae	4+ Klebsiella pneumoniae ssp pneumoniae

BACTERIA INFORMATION

Expected/Beneficial bacteria make up a significant portion of the total microflora in a healthy & balanced GI tract. These beneficial bacteria have many health-protecting effects in the GI tract including manufacturing vitamins, fermenting fibers, digesting proteins and carbohydrates, and propagating anti-tumor and anti-inflammatory factors.

Clostridia are prevalent flora in a healthy intestine. Clostridium spp. should be considered in the context of balance with other expected/beneficial flora. Absence of clostridia or over abundance relative to other expected/beneficial flora indicates bacterial imbalance. If C. difficile associated disease is suspected, a Comprehensive Clostridium culture or toxigenic C. difficile DNA test is recommended.

Commensal (Imbalanced) bacteria are usually neither pathogenic nor beneficial to the host GI tract. Imbalances can occur when there are insufficient levels of beneficial bacteria and increased levels of commensal bacteria. Certain commensal bacteria are reported as dysbiotic at higher levels.

Dysbiotic bacteria consist of known pathogenic bacteria and those that have the potential to cause disease in the GI tract. They can be present due to a number of factors including: consumption of contaminated water or food, exposure to chemicals that are toxic to beneficial bacteria, the use of antibiotics, oral contraceptives or other medications, poor fiber intake and high stress levels.

Recommended for Patients With

- AD(H)D
- Anxiety
- Arthritis, Articular, or Muscular Pain
- Autism Spectrum Disorders
- Behavioral Disorders
- Chronic Fatigue & Fibromyalgia
- Depression
- Diarrhea, Constipation, Abdominal Distension
- Food Allergies
- Inflammatory Bowel Disease
- Irritable Bowel Syndrome
- Leaky Gut Syndrome
- Obsessive-Compulsive Disorder
- Skin Conditions & Acne
- Tic Disorder / Tourette's Syndrome
- Vitamin or Mineral Deficiencies
- Weight Changes
- Yeast Infections

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SHORT CHAIN FATTY ACIDS

	Within	Outside	Reference Range
% Acetate	69		36 - 74 %
% Propionate	15		9 - 32 %
% Butyrate	14		9 - 39 %
% Valerate			

Short chain fatty acids (SCFAs): SCFAs are the end product of the bacterial fermentation process of dietary fiber by beneficial flora in the gut and play an important role in the health of the GI as well as protecting against intestinal dysbiosis. Lactobacilli and bifidobacteria produce large amounts of short chain fatty acids, which decrease the pH of the intestines and therefore make the environment unsuitable for pathogens, including bacteria and yeast. Studies have shown that SCFAs have numerous indications in...

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DIGESTION / ABSORPTION

	Within	Outside	Reference Range
Elastase	443		> 200 µg/mL
Fat Stain	None		None - Mod
Muscle fibers	None		None - Rare
Vegetable fibers	Rare		None - Few
Carbohydrates			

Elastase findings can be used for the diagnosis or the exclusion of exocrine pancreatic insufficiency. Correlations between low levels and chronic pancreatitis and cancer have been reported. Fat Stain: Microscopic determination of fecal fat using Sudan IV staining is a qualitative procedure utilized to assess fat absorption and to detect steatorrhea. Muscle fibers in the stool are an indicator of incomplete digestion. Bloating, flatulence, feelings of "fullness" may be associated with increase in muscle fibers. Vegetable fibers in the stool may be indicative of inadequate chewing, or eating "on the run". Carbohydrates: The presence of...

Yeast Susceptibilities: Candida albicans

NATURAL ANTIFUNGALS

	Low Sensitivity	High Sensitivity
Berberine		
Caprylic Acid		
Uva Ursi		
Plant Tannins		
Oregano		
Undecylenic Acid		
Grapefruit Seed Extract		

Natural antifungal agents may be useful for treatment of patients when organisms display in-vitro sensitivity to these agents. The test is performed by using standardized techniques and filter paper disks impregnated with the listed agent. Relative activity is reported for each natural agent based upon the diameter of the zone of inhibition or no growth zone surrounding the disk. Data based on over 5000 individual observations were used to relate the zone size to the activity level of the agent. A scale of relative activity is defined for the natural agents tested.

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