



FlorInScan

Personalized Report

CACTUS HEALTH SRL

41 BIS EROU IANCU NICOLAE street
RO-077190 VOLUNTARI, ILFOW COUNTY

Reference:
external ref.:
Patient-ID:

Sample date:

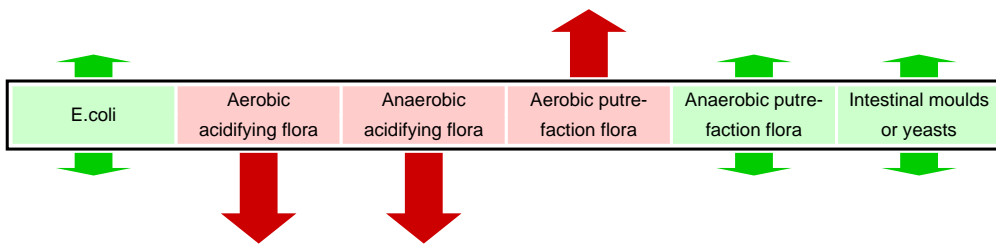
Entry date

Date of report:

Validated by:
Dr. Laszlo CSATHY

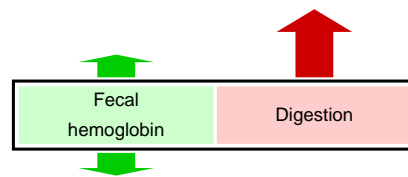
State of the intestinal flora: 20 (Very pronounced dysbiosis)

FlorInScan



State of the intestinal flora	
0-3	No particular dysbiosis
4-5	Presence of a weak dysbiosis
6-7	Presence of a moderate dysbiosis
8-14	Presence of a marked dysbiosis
>14	Very pronounced dysbiosis

FlorInScan+ (FlorInScan plus)



Summary

The stool flora is characterized by an increase of the aerobic putrefaction flora and by a simultaneous reduction of the acidifying flora. These findings are associated with an alkalization of the small bowel content, possibly causing a small intestine bacterial overgrowth syndrome (SIBOS) and the colonization with pathogenic germs. The metabolically very active putrefaction flora transforms primarily proteins and lipids into biogenic amines and toxic by-products which can impede the hepatic metabolism. If the hepatic detoxification capacity is impaired, the entire organism is affected. As the growth rate of the anaerobic acidifying flora is impaired, the neutralizing capacity of the colon for alkalizing metabolites is reduced. A decreased pancreatic elastase-1 level is a sign of an exocrine pancreatic insufficiency. Beware of a dilution effect which may be due to diarrhoea.

Results

	measured value		Tolerance range
Bacteriology			
Aerobic flora			
E. coli	3·10 ⁶ CFU/g		5·10 ⁵ - 1·10 ⁷
E. coli var	2·10⁶ CFU/g		≤ 9·10 ⁴
Enterobacteriaceae	3·10⁶ CFU/g		≤ 9·10 ⁴
Proteus mirabilis	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Proteus vulgaris	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Klebsiella oxytoca	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Klebsiella pneumoniae	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Citrobacter spp	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Serratia spp	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Hafnia alvei	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Morganella morganii	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Providencia spp	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Pseudomonas spp	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
other aerobic germs	2·10⁷ CFU/g		≤ 9·10 ⁴
Facultative anaerobes			
Enterococcus	< 1·10⁵ CFU/g		1·10 ⁶ - 1·10 ⁷
Staphylococcus aureus	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
α-haemolys. Streptococcus	1·10⁶ CFU/g		≤ 9·10 ⁴
β-haemolys. Streptococcus	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Streptococcus non hemolytic	2·10⁷ CFU/g		≤ 9·10 ⁴
Bacillus spp	< 1·10 ⁵ CFU/g		≤ 9·10 ⁴
Anaerobic flora			
Bacteroidales	1·10 ⁹ CFU/g		1·10 ⁸ - 1·10 ¹⁰
Clostridium spp	< 1·10 ⁵ CFU/g		≤ 1·10 ⁵
Bifidobacterium spp	3·10⁷ CFU/g		1·10 ⁸ - 1·10 ¹⁰
Lactobacillus spp	< 1·10⁵ CFU/g		1·10 ⁵ - 1·10 ⁷
Mycology			
Candida albicans	< 1·10 ³ CFU/g		≤ 1·10 ³
Candida spp.	< 1·10 ³ CFU/g		≤ 1·10 ³
Geotrichum	< 1·10 ³ CFU/g		≤ 1·10 ³
other yeasts/ moulds	< 1·10 ³ CFU/g		≤ 1·10 ³
Other markers			
Fecal occult blood			
Fecal hemoglobin	-		
Digestion and food intolerance			
pH	5.8		5.8 - 6.5
Color	brown		
Consistency	fibrous		
Starch	-		
Lipids	-		
Muscle	+		
Pancreatic elastase 1	137 μg/g		≥ 200

Results and interpretation

The aerobic flora is characterized by an atypical E.coli overgrowth, a decrease of the acidifying flora and a presence of non-resident germs. The colonization resistance is diminished. The reduced growth or lack of Enterococcus flora can lead to a decreased mucosal immunity. Atypical E.coli variants can produce hemolysine and other virulence factors which can amongst others promote the adhesion of pathogenic bacteria to the mucosal membrane. The absence or reduced growth of the obligate aerobic acidifying flora can further increase this effect.

The presence of alpha-hemolytic strains of Streptococcus may be a sign of an inflammation of the colon or the ear-nose-throat region.

Perturbation of the probiotic saccharolytic flora with a decreased growth of Bifidobacteria and Lactobacilli leading to a diminution of the colonization resistance against pathogenic germs and fungi. A substitution of the missing probiotic flora is highly recommended.

Absence of a colonization by yeasts or moulds.

The measured pH value is in the physiological range.

Decreased pancreatic elastase-1 value. Fecal pancreatic elastase-1 is a specific enzyme of the pancreas with a high sensitivity regarding the function of the exocrine pancreas.

No human fecal hemoglobin was detected.

General explications

Variant strains of E.coli

The variants of E.coli belong in low concentrations to the transient flora and can also be found in healthy individuals. Lactose negative E.coli cannot use lactose as energy source.

Attention: This is not similar to lactose intolerance.

Hemolytic E.coli has a hemolytic activity on erythrocytes in the culture medium. The metabolic activity of E.coli variants is mainly proteolytic and leads to an alkalization of the intestinal environment. Concentrations over 10^5 CFU/g can be indicative of an unbalanced diet, a digestion disorder or a reduced colonization resistance. The majority of hemolytic strains produce pathogenic factors like adhesine, which can increase the adhesion to the intestinal mucous membrane. The toxin production can provoke diarrheas.

Enterococcus

Enterococcus spp. belongs due to its resistance against bile and acids to the obligate resident flora of the small and large intestines. Some strains are present in fermented food such as sausage and cheese. Enterococci are predominantly saccharolytic acteria as they use carbon hydrates as energy source. Through the synthesis of short- chain fatty acids, they acidify the intestinal content, contributing hereby to the protection against pathogenic germs by the production of bacteriostatic or bactericidal substances, which are also called enterocines.

Streptococci

Streptococci belong to the physiological bacterial flora in humans. An increased number of alpha- and/or beta-hemolytic streptococci can however be indicative of an inflammation and/or infection. The inflammation can be located in the gastro-intestinal tract or in the ear, nose and throat region.

Bifidobacterium spp.

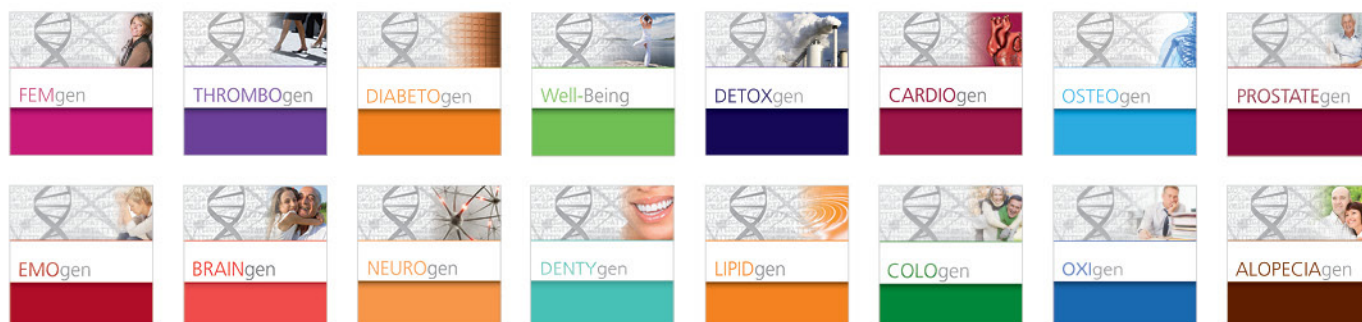
The large and small intestine, the buccal cavity and the vagina are the natural habitat of Bifidobacteria. They belong to the obligate resident intestinal flora. They represent the majority of the germs of the intestinal flora (10^9 to 10^{11} CFU/g) of breast fead babies. As they are present in large numbers and as they have a saccharolytic metabolic activity, they contribute to the colonization resistance. In combination with Lactobacteria and Enterococci, they help to maintain a mild acid milieu. Their maximal growth rate is situated at a pH between 6 and 7.

Lactobacillus spp.

Lactobacilli are present in large concentrations in vegetables and are used as preservative agents by the food industry. Lactobacilli belong to the obligate but not to the resident flora of the small and large bowel, the buccal cavity and the vagina. A continuous supply needs to be provided through the consumption of yoghurts, cheese and crout. The metabolic activity of lactobacilli is purely saccharolytic. They play a key role in pH regulation by producing short-chain fatty acids. Lactobacilli inhibit the proliferation of the putrefaction flora and the synthesis of carcinogenic compounds through the production of bactericins. The optimal pH for lactobacillus metabolic activity is about 6.

Pancreatic elastase-1

The pancreatic elastase-1 is exclusively produced in the human pancreas. Its main task is the degradation of proteins without being metabolized on its own and being able to pass freely the intestinal tract. The measurement of the activity is a sure and non-invasive method to determine the function of the exocrine pancreas. The values are not influenced by an eventual supplementation of pancreatic enzymes so there is no need to interrupt the medication or a special diet. However watery stools can lead to falsely negative values.



Examples of our Genetic Profiles:

FEMgen:	Sporadic breast cancer	MACULAgen:	Age-Related Macular Degeneration
OSTEOgen:	Osteoporosis	LIPIDgen:	Lipid metabolism disorders
THROMBOgen:	Thrombosis	DIABETOgen:	Diabetes type II
PROSTATEgen:	Prostate cancer	COLOgen:	Sporadic colon carcinoma
DETOXgen:	Detoxification capacities	ALOPECIAgen:	Androgenetic alopecia
DETOXgen heavy metals:	Detoxification of heavy metals	EMOgen:	Emotional instability
OXIgen:	Oxidative stress	AUTISMgen:	Autism
DENTYgen:	Periodontitis	SKINgen:	Skin health
NEUROgen:	Neurodegenerative diseases	WEIGHTgen:	Weight control
CARDIOgen:	Cardiovascular diseases	WELL-BEING:	Anti-aging
		NICOTINEgen:	Nicotine addiction

