

P: 1300 688 522
E: info@nutripath.com.au

16 HARKER STREET
BURWOOD VIC 3125

Dr. SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

LAB ID : 3868737
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



3868737

COMPLETE MICROBIOME MAPPING

General Macroscopic Description

	Result	Markers
Stool Colour	Brown	Colour - Brown is the colour of normal stool. Other colours may indicate abnormal gut health.
Stool Form	Formed	Form - Sample form is categorised using the Bristol stool chart. A comment on stool appearance can be found in the comments section.
Mucous	Not Detected	Mucous - Mucous production may indicate the presence of an infection and/or inflammation.
Occult Blood	POSITIVE	Blood (Macro) - The presence of blood in the stool may be the result of several causes besides colorectal bleeding, including hemorrhoids or gastrointestinal infection.

Short Chain Fatty Acids	Result	Range	Units	
Short Chain Fatty Acids, Beneficial	15.0	> 13.6	umol/g	
Butyrate	10.2 *L	10.8 - 33.5	%	
Acetate	65.0	44.5 - 72.4	%	
Propionate	22.8	0.0 - 32.0	%	
Valerate	2.0	0.5 - 7.0	%	

GIT Functional Markers	Result	Range	Units	
Calprotectin.	65.0 *H	0.0 - 50.0	ug/g	
Pancreatic Elastase	>500.0	> 200.0	ug/g	
Faecal Secretory IgA	741.0	510.0 - 2010.0	ug/g	
Faecal Zonulin	109.0 *H	0.0 - 107.0	ng/g	
Faecal B-Glucuronidase	4566.0 *H	337.0 - 4433.0	U/g	
Steatocrit	14.0	0.0 - 15.0	%	
anti-Gliadin IgA	22.0	0.0 - 100.0	units/L	

Microbiome Mapping Summary

Parasites & Worms

Blastocystis hominis.
Dientamoeba fragilis.

Bacteria & Viruses

Pseudomonas aeruginosa.
Streptococcus species
Oxalobacter formigenes
Citrobacter freundii.
Sapovirus (I,II,IV,V)

Fungi and Yeasts

Candida species.

Key Phyla Microbiota

Firmicutes:Bacteroidetes Ratio **1.18 *H** < 1.00 RATIO



Relative Commensal Abundance of the 6 Phyla groups can be found on page 4 of this report



P: 1300 688 522
E: info@nutripath.com.au

16 HARKER STREET
BURWOOD VIC 3125

Dr.SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

LAB ID : 3868737
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



3868737

Parasites and Worms. Result Range Units

Parasitic Organisms

Organism	Result	Range	Units	Visual
Cryptosporidium.	<dl	< 1.0	x10 ⁶ org/g	●
Entamoeba histolytica.	<dl	< 1.0	x10 ⁴ org/g	●
Giardia intestinalis	<dl	< 1.0	x10 ³ org/g	●
Blastocystis hominis.	244.0 *H	< 1.0	x10 ³ org/g	●
Dientamoeba fragilis.	3.0 *H	< 1.0	x10 ⁵ org/g	●
Endolimax nana	<dl	< 1.0	x10 ⁴ org/g	●
Entamoeba coli.	<dl	< 5.0	x10 ⁶ org/g	●
Pentatrichomonas hominis	<dl	< 1.0	x10 ² org/g	●

Worms

Ascaris lumbricoides, Roundworm	Not Detected	Necator americanus, Hookworm	Not Detected
Trichuris trichiura, Whipworm	Not Detected	Enterobius vermicularis, Pinworm	Not Detected
Enterocytozoon spp	Not Detected	Hymenolepis spp, Tapeworm	Not Detected
Strongyloides spp, Roundworm	Not Detected	Taenia species, Tapeworm	Not Detected

Comment: **Not Detected** results indicate the absence of detectable DNA in the sample for the worms reported.
NOTE: Reflex testing is performed on clinically indicated samples

Opportunistic Bacteria/Overgrowth Result Range Units

Bacteria	Result	Range	Units	Visual
Bacillus species.	0.87	< 1.00	x10 ⁵ CFU/g	●
Enterococcus faecalis	0.33	< 1.00	x10 ⁴ CFU/g	●
Enterococcus faecium	0.47	< 1.00	x10 ⁴ CFU/g	●
Morganella species	<dl	< 1.00	x10 ³ CFU/g	●
Pseudomonas species	<dl	< 1.00	x10 ⁴ CFU/g	●
Pseudomonas aeruginosa.	5.77 *H	< 3.00	x10 ² CFU/g	●
Staphylococcus species	<dl	< 1.00	x10 ⁴ CFU/g	●
Staphylococcus aureus	<dl	< 5.00	x10 ² CFU/g	●
Streptococcus species	3.90 *H	< 3.00	x10 ³ CFU/g	●
Methanobacteriaceae	2.27	< 5.00	x10 ⁹ CFU/g	●
Desulfovibrio piger	14.00	< 18.00	x10 ⁷ CFU/g	●
Oxalobacter formigenes	10.00 *L	> 15.00	x10 ⁷ CFU/g	●

Potential Autoimmune Triggers

Citrobacter species.	4.00	< 5.00	x10 ⁵ CFU/g	●
Citrobacter freundii.	6.96 *H	< 5.00	x10 ⁵ CFU/g	●
Klebsiella species	<dl	< 5.00	x10 ³ CFU/g	●
Klebsiella pneumoniae.	4.22	< 5.00	x10 ⁴ CFU/g	●
Prevotella copri	<dl	< 1.00	x10 ⁷ CFU/g	●
Proteus species	<dl	< 5.00	x10 ⁴ CFU/g	●
Proteus mirabilis.	<dl	< 1.00	x10 ³ CFU/g	●
Fusobacterium species	8.80	< 10.00	x10 ⁷ CFU/g	●

Fungi & Yeast Result Range Units

Candida species.	6.90 *H	< 5.00	x10 ³ CFU/g	●
Candida albicans.	<dl	< 5.00	x10 ² CFU/g	●
Geotrichum species.	<dl	< 3.00	x10 ² CFU/g	●
Saccharomyces cerevisiae.	<dl	< 3.00	x10 ³ CFU/g	●
Rhodotorula species.	<dl	< 1.00	x10 ³ CFU/g	●

SAMPLE REPORT

01-Jan-1990 Male

16 HARKER STREET
BURWOOD VIC 3125

Dr.SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

LAB ID : 3868737
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



3868737

Bacterial Pathogens	Result	Range	Units	
Aeromonas hydrophila.	<dl	< 1.00	x10 ³ CFU/g	●
Campylobacter species.	<dl	< 1.00	x10 ³ CFU/g	●
C. difficile, Toxin A	<dl	< 1.00	x10 ³ CFU/g	●
C. difficile, Toxin B	<dl	< 1.00	x10 ³ CFU/g	●
Enterohemorrhagic E. coli	<dl	< 1.00	x10 ³ CFU/g	●
Enteroinvasive E. coli/Shigella	<dl	< 1.00	x10 ³ CFU/g	●
Enterotoxigenic E. coli LT/ST	<dl	< 1.00	x10 ³ CFU/g	●
Shiga-like Toxin E. coli stx1	<dl	< 1.00	x10 ³ CFU/g	●
Shiga-like Toxin E. coli stx2	<dl	< 1.00	x10 ³ CFU/g	●
Salmonella species.	<dl	< 1.00	x10 ⁴ CFU/g	●
Vibrio species.	<dl	< 1.00	x10 ⁵ CFU/g	●
Yersinia species.	<dl	< 1.00	x10 ⁵ CFU/g	●
Helicobacter pylori	<dl	< 1.0	x10 ³ CFU/g	●

Comment: Helico Pylori virulence factors will be listed below if detected POSITIVE

H.pylori Virulence Factor, babA	Not Detected	H.pylori Virulence Factor, cagA	Not Detected
H.pylori Virulence Factor, dupA	Not Detected	H.pylori Virulence Factor, iceA	Not Detected
H.pylori Virulence Factor, oipA	Not Detected	H.pylori Virulence Factor, vacA	Not Detected
H.pylori Virulence Factor, virB	Not Detected	H.pylori Virulence Factor, virD	Not Detected

Viral Pathogens	Result	Range	Units	
Adenovirus 40/41	Not Detected			Comment: Not Detected results indicate the absence of detectable DNA in this sample for the viruses reported.
Norovirus GI/II	Not Detected			
Rotavirus A	Not Detected			
Sapovirus (I,II,IV,V)	DETECTED			
Astrovirus (hAstro)	Not Detected			

Normal Bacterial GUT Flora	Result	Range	Units	
Bacteroides fragilis	1.2 *L	1.6 - 250.0	x10 ⁹ CFU/g	●
Bifidobacterium species	752.0	> 6.7	x10 ⁷ CFU/g	●
Bifidobacterium longum	385.0	> 5.2	x10 ⁶ CFU/g	●
Enterococcus species	4.9	1.9 - 2000.0	x10 ⁵ CFU/g	●
Escherichia species	1268.0	3.7 - 3800.0	x10 ⁶ CFU/g	●
Lactobacillus species	11.0	8.6 - 6200.0	x10 ⁵ CFU/g	●
Lactobacillus Rhamnosus	6.3 *L	8.3 - 885.0	x10 ⁴ CFU/g	●
Clostridium species	48.0	5.0 - 50.0	x10 ⁶ CFU/g	●
Enterobacter species	9.0	1.0 - 50.0	x10 ⁶ CFU/g	●
Akkermansia muciniphila	<dl *L	1.00 - 50.00	x10 ³ CFU/g	●
Faecalibacterium prausnitzii	122.0 *L	200.0 - 3500.0	x10 ³ CFU/g	●







Note: Testing performed by qPCR <dl = Result below detectable limit



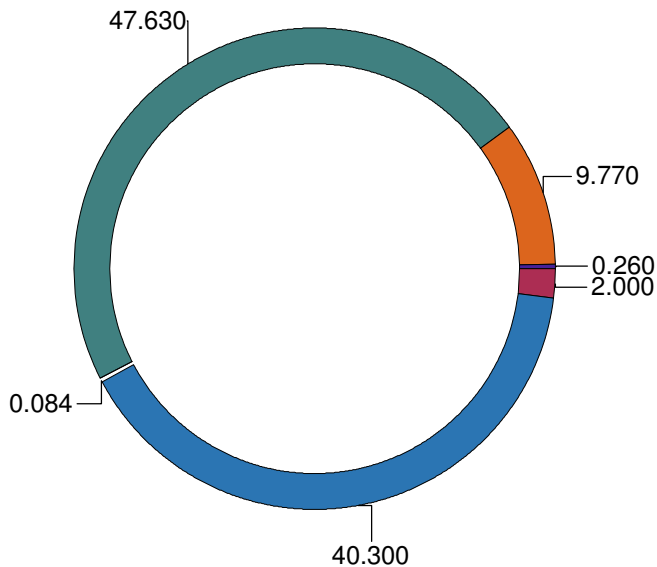
3868737

Introduction:

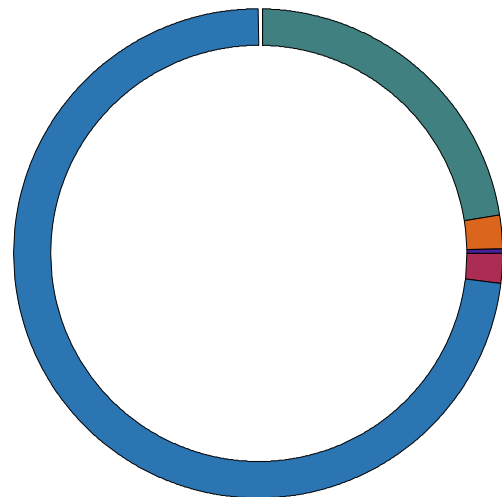
Your gut microbiome is a collective name for the 40 trillion cells and up to 1000 microbial species that include bacteria, viruses, fungi, parasites, and archaea and reside in our gut. The number of gut bacterial cells is approximately equal to the total number of human cells in our body, so if we consider only cell counts, we are only about half human. In terms of gene counts, the microbiome contains about 200 times more genes than the human genome, making bacterial genes responsible for over 99% of our body's gene content! Of all the microbial communities in the human body, the gut microbiome is by far the most dense, diverse, and physiologically important ecosystem to our overall health.

Relative Commensal Abundance	Result	Range	Units	
	Firmicutes Phylum	47.630 *H	3.500 - 40.000	%
	Bacteroides Phylum	40.300 *L	50.000 - 95.000	%
	Proteobacteria Phylum	9.770	0.500 - 12.500	%
	Actinobacteria Phylum	2.000	0.001 - 4.818	%
	Verrucomicrobia Phylum	0.260	0.000 - 2.400	%
	Euryarchaeota Phylum	0.084	0.000 - 0.177	%

Your Phyla:



Healthy Phyla:



References:

NOTE: Relative abundance reference ranges have been based on a healthy population study.
King CH, et., al. (2019) Baseline human gut microbiota profile in healthy people and standard reporting template. PLoS One. 2019 Sep 11;14(9):e0206484.

P: 1300 688 522
E: info@nutripath.com.au

16 HARKER STREET
BURWOOD VIC 3125

Dr.SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

LAB ID : 3868737
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



Pathogen Summary:

Macroscopy Comment

BROWN coloured stool is considered normal in appearance.

FAECAL OCCULT BLOOD POSITIVE:

Faecal occult blood has been detected in this specimen. The presence of blood in the stool may be the result of several causes besides colorectal bleeding, including hemorrhoids or gastrointestinal infection. Results should be considered with other clinical information available to the physician.

Please note: A positive result indicates that the sample likely contains a human haemoglobin concentration >20ng/ml (Limit of detection).

Review this result with other inflammation markers such as calprotectin.

Metabolism Comment

In a healthy gut Short Chain Fatty Acids (SCFAs) exhibited in the following proportions; Butyrate, Acetate, Propionate (16%:60%:24%).

The primary SCFAs butyrate, propionate and acetate are produced by predominant commensal bacteria via fermentation of soluble dietary fibre and intestinal mucus glycans.

Key producers of SCFAs include Faecalibacterium prausnitzii, Akkermansia muciniphila, Bacteroides fragilis, Bifidobacterium, Clostridium and Lactobacillus Spp.

The SCFAs provide energy for intestinal cells and regulate the actions of specialised mucosal cells that produce anti-inflammatory and antimicrobial factors, mucins that constitute the mucus barriers, and gut active peptides that facilitate appetite regulation and euglycemia. Abnormal SCFAs may be associated with dysbiosis, intestinal barrier dysfunction and inflammatory conditions.

LOW BUTYRATE LEVEL:

Butyrate is a short chain fatty acid that is extremely important for gut health. It is the main fuel source for gut cells, which helps keep the gut cell barrier intact, can reduce inflammation, and helps control appetite. Low levels of butyrate production have been observed in individuals with inflammatory bowel diseases, insufficient fibre intake, slow transit time, recent antibiotic therapy. Low butyrate may also be associated with an increased risk of colon cancer & constipation.

Consuming foods high in resistant starch has been shown to increase butyrate levels.

SCFA PRODUCTION TABLE

BACTERIA	BUTYRATE	PROPIONATE	ACETATE
<i>Akkermansia muciniphila</i>		▲▲▲	▲▲
<i>Anaerostipes caccae</i>	▲▲▲		
<i>Bacteroides spp.</i>		▲▲▲	
<i>Bifidobacterium spp.</i>		▲	▲▲▲
<i>Blautia obeum</i>		▲▲	▲▲▲
<i>Coprococcus eutactus</i>	▲		
<i>Escherichia coli</i>			▲
<i>Eubacterium rectale</i>	▲▲		
<i>Faecalibacterium prausnitzii</i>	▲▲▲		
<i>Lactobacillus spp.</i>	▲	▲	▲
<i>Roseburia homini</i>	▲▲		
<i>Ruminococcus bromii</i>	▲		▲
<i>Subdoligranulum variable</i>	▲		

KEY

- ▲ Low Producers
- ▲▲ Moderate Producers
- ▲▲▲ High Producers



SAMPLE REPORT

01-Jan-1990 Male

P: 1300 688 522
E: info@nutripath.com.au

16 HARKER STREET
BURWOOD VIC 3125

Dr.SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

LAB ID : 3868737
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



3868737

GIT Markers Comment

PANCREATIC ELASTASE: Normal exocrine pancreatic function.

Pancreatic Elastase reflects trypsin, chymotrypsin, amylase and lipase activity.

This test is not affected by supplements of pancreatic enzymes.

Healthy individuals produce on average 500 ug/g of PE-1. Thus, levels below 500 ug/g and above 200 ug/g suggest a deviation from optimal pancreatic function.

The clinician should therefore consider digestive enzyme supplementation if one or more of the following conditions is present:

Loose watery stools, Undigested food in the stools, Post-prandial abdominal pain, Nausea or colicky abdominal pain, Gastroesophageal reflux symptoms, Bloating or food intolerance.

ELEVATED CALPROTECTIN:

Elevated faecal calprotectin indicates a high probability of intestinal inflammation.

For patients with known inflammatory bowel disease in remission, faecal calprotectin above 50 ug/g is associated with an increased risk of relapse over the next 12 months. In patients with faecal calprotectin below 50u/g with strong clinical indications of intestinal inflammation, repeat testing may be useful. In small bowel Crohn's disease, the faecal calprotectin may not be elevated. Elevated faecal calprotectin may occur with other conditions including colorectal cancer, NSAID ulceration, coeliac disease, diverticulitis and chronic inflammation.

Further investigative procedures are necessary to determine the cause of inflammation.

Test performed by Phadia ELIA Fluorescence enzyme immunoassay (FEIA).

SECRETORY IGA NORMAL:

Secretory IgA is within range.

Secretory IgA represents the first line of defence of the gastrointestinal mucosa and is central to the normal function of the gastrointestinal tract as an immune barrier. Review this level with other pathogenic bacteria and normal commensal flora lower levels within reference range should be interpreted clinically.

ELEVATED ZONULIN LEVELS:

Zonulin is a protein that modulates intestinal barrier function and can also be considered as a potential inflammatory marker. Review other markers in conjunction to this result such as faecal calprotectin.

Zonulin release facilitates the opening of tight junctions between the cells of the intestinal lining to allow for passage of nutrients and fluids into the body. However, Zonulin release can be "overstimulated" by certain external factors to cause excessive opening of tight junctions, leading to intestinal hyperpermeability or "leaky gut", inflammation, liver overload, nutrient deficiencies, rheumatoid arthritis and autoimmune disorders.

Identify the possible cause/s (Gut microorganism imbalance or the presence of dietary Gluten/gliadin) and remove to reduce further damage.

beta GLUCURONIDASE ELEVATED:

Beta-glucuronidase is a bacterial enzyme that may limit the body's ability to excrete compounds such as drugs, hormones, and environmental toxins. Certain bacteria may also increase Beta-glucuronidase such as elevated levels of E.coli.

Treatment:

Consider Calcium-D-glucarate which may assist with lowering B-glucuronidase levels. It is also suggested to introduce a low-calorie/vegetarian diet for 4 weeks which may also be beneficial with lowering faecal B-glucuronidase levels. Additionally, one human study has suggested that consuming glucomannan can reduce fecal beta-glucuronidase activity. Glucomannan is a type of prebiotic fiber found in konjac root which is commonly used to make low calorie pasta and noodles.

Parasites/Worms Comment

ELEVATED BLASTOCYSTIS HOMINIS LEVEL:

Blastocystis hominis may be the cause of persistent, mild diarrhoea. It is endemic in Australia, although it may also be associated with recent overseas travel. Detection suggests the ingestion of contaminated material or contact with farm animals. Continued symptoms may require further testing for the detection of bacterial, viral and/or parasitic co-pathogens.

TREATMENT SUGGESTIONS:

Mild symptoms are self-limiting.

If treatment is warranted, metronidazole 400 - 750mg (child 12-17mg/kg up to 750mg) three times daily for at least 10 days. Lower dosages are usually associated with treatment failure.

Paromomycin has also shown to be effective as an alternative treatment option.

Rule out allergy to above medication before prescribing/taking. Consult ID specialist if patient is showing severe symptoms or immunocompromised.

ELEVATED DIENTAMOEBIA FRAGILIS LEVEL:

Dientamoeba fragilis appears to be extremely common and may have a cosmopolitan distribution, although there are large variations



SAMPLE REPORT

01-Jan-1990 Male

P: 1300 688 522
E: info@nutripath.com.au

16 HARKER STREET
BURWOOD VIC 3125

Dr.SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

LAB ID : 3868737
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



in prevalence. *Dientamoeba fragilis* has been linked to intestinal symptoms, especially in children. The most common symptoms associated with this organism are abdominal pain, intermittent diarrhoea, bloating and anorexia.

TREATMENT SUGGESTIONS:

Mild symptoms are self-limiting.

If treatment is warranted, metronidazole for 10 days or a single 2g dose of Tinidazole may be used. Tetracycline has also proven effective in adults.

Rule out allergy to above medication before prescribing/taking. Consult ID specialist if patient is showing severe symptoms or immunocompromised.

Opportunistic Bacteria Comment

PSEUDOMONAS AERUGINOSA ELEVATED:

PHYLUM: Proteobacteria

DESCRIPTION:

Pseudomonas aeruginosa is a gram-negative, aerobic, non-spore forming bacteria that can cause a variety of infections in both immunocompetent and immunocompromised hosts. It is commonly found in the environment, particularly in freshwater, hot tubs, and swimming pools. Chronic gastrointestinal colonization is acknowledged to be an important component of *P. aeruginosa* diarrheal disease and systemic infections. Since disruption of the normal flora by antibiotics can reduce colonization resistance and promote pathologic colonization with *P. aeruginosa*, enterocolitis due to *P. aeruginosa* may also be considered to be an antibiotic-associated gastroenteritis.

Pseudomonas aeruginosa in the gastrointestinal tract can cause inflammation, epithelial barrier dysfunction, tight cell junction interruption, and intestinal permeability.

TREATMENT SUGGESTIONS:

If treatment is warranted, *Pseudomonas* is usually susceptible to antipseudomonal penicillins, aminoglycosides, carbapenems, 3rd generation cephalosporins and gentamycin. Plant-derived anti-biofilm products identified against *P. aeruginosa* include alkaloids, organosulfur compounds, flavonoids, phenolic compounds and terpenoids. Rule out allergy to above medication before prescribing/taking.

STREPTOCOCCUS SPECIES ELEVATED:

PHYLUM: Firmicutes

DESCRIPTION:

Streptococcal species are a genus of gram-positive cocci which are normally diverse in the intestinal microbial community. *Streptococcus* spp. are involved in the fermentation of sugars, yielding lactic acid as their predominant fermentation end product. Elevated gut streptococci may be associated with diseases such as inflammatory bowel disease, liver cirrhosis or hypertension.

Higher levels in the intestine may result from low stomach acid, PPI use, reduced digestive capacity, SIBO or constipation; Elevated levels may also be indicative of intestinal inflammatory activity, and may cause loose stools.

TREATMENT SUGGESTIONS:

Treatment of streptococcus in gut flora is not always recommended. A practitioner may take into consideration a range of patient factors and symptoms. The 4R treatment protocol at the end of this report may be considered.

OXALOBACTER FORMIGENES LOW:

PHYLUM: Proteobacterium

DESCRIPTION:

Oxalobacter formigenes is a Gram negative oxalate-degrading anaerobic bacterium. Oxalate is formed in the liver by amino acid catabolism as well as present in a wide range of foods including tea, coffee, chocolate and certain fruits and vegetables. High concentration of oxalate in the urine is related to the potential formation of calcium oxalate kidney stones. *Oxalobacter Formigenes* is the main known bacterial species involved in oxalate degradation in the gut and maintains oxalate homeostasis. Levels of *O. Formigenes* tends to decrease with age as well as with the use of antibiotics or other drugs. Low levels may be associated with calcium oxalate stone formation, inflammatory bowel disease or Crohn's.

TREATMENT SUGGESTIONS:

Treatment options include probiotic treatment and low oxalate diet modification. Urinary oxalate levels may also need to be investigated.



SAMPLE REPORT

01-Jan-1990 Male

P: 1300 688 522
E: info@nutripath.com.au

16 HARKER STREET
BURWOOD VIC 3125

Dr.SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

LAB ID : 3868737
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



3868737

Potential Autoimmune Comments

CITROBACTER FREUNDII ELEVATED:

PHYLUM: Proteobacteria

DESCRIPTION:

Citrobacter freundii is a species of facultative anaerobic Gram-negative predominantly soil-dwelling bacteria, but can also be found in water, sewage, food, and the intestinal tract. Citrobacter freundii is an emerging opportunistic pathogen and elevation may be a cause of nosocomial infections, diarrheal infections and has increasingly become multidrug resistant (MDR).

TREATMENT SUGGESTIONS:

A practitioner may take into consideration a range of patient factors and symptoms to determine if treatment is necessary. Citrobacter freundii infection is usually treated with antibiotics like fluoroquinolones, carbapenems and cephalosporins. The treatment plan depends up on the vulnerability of the microbe to the antibiotics and the degree of infection. Treatments may also include herbal antimicrobials and/or probiotics. Rule out allergy to above medication before prescribing/taking.

Fungi/Yeasts Comment

CANDIDA SPECIES ELEVATED:

PHYLUM: Ascomycota

DESCRIPTION:

Candida is a genus of yeasts found in the environment and present in healthy persons colonizing the oropharyngeal, oesophageal and gastrointestinal mucosa. Most species are considered normal flora, however, they can behave as opportunistic pathogens. Candidiasis is an opportunistic infection due to Candida, which can affect the oral cavity, vagina, penis, or gastrointestinal tract. Elevated Candida colonization is associated with several diseases of the gastrointestinal tract including Ulcerative colitis, Crohn's and Gastric Ulcers as well as with antibiotic usage.

Other common symptoms include: Gas, bloating, constipation, nausea and skin conditions such as Eczema.

TREATMENT SUGGESTIONS: Dietary: Reduce intake of sugars, starches, and fungi.

Candida infections may be treated if warranted with antifungal medications such as nystatin, clotrimazole, amphotericin B or miconazole. Probiotic Lactobacillus treatment may also be effective. Rule out allergy to above medication before prescribing/taking.



SAMPLE REPORT

01-Jan-1990 Male

P: 1300 688 522
E: info@nutripath.com.au

16 HARKER STREET
BURWOOD VIC 3125

Dr.SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

LAB ID : 3868737
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



3868737

Phyla Microbiota Comment

FIRMICUTES (PHYLUM) ELEVATED:

DESCRIPTION:

Firmicutes are a phylum of diverse bacteria which are primarily grouped into classes, Bacilli, Clostridia, Erysipelotrichia and Negativicutes. They are found in various environments, including the intestinal tract, and the group includes some notable pathogens. Firmicutes are involved in energy resorption in the gut microbiome and levels may be affected by diet. Elevated levels and disturbance of gastrointestinal microbiome balance, particularly Firmicutes/Bacteroidetes ratio, have been associated with inflammation, obesity, diabetes and with a high sugar/ fat diet.

TREATMENT SUGGESTIONS: Consider using Bifidobacterium or Saccharomyces containing probiotics. It may also be suggested to optimise the patient diet. A lower fat diet may help to normalize Firmicutes levels.

FIRMICUTES/BACTEROIDES RATIO ELEVATED:

Elevated Firmicutes/Bacteroidetes ratio is frequently cited in the scientific literature as a hallmark of obesity, metabolic syndrome, irritable bowel syndrome or diabetes risk. The ratio may also be used to evaluate commensal microbial balance.

Please note that there is no standardised F/B ratio range. The calculation provided in this report is made by the sum of abundance of Firmicutes tested divided by the sum of abundance Bacteroidetes. Reference ranges are based of internal cohort studies and also compared to published literature.

Treatment:

Balance commensal bacteria using the 4R Protocol which is located at the end of this test report. When firmicutes are high, consider using Bifidobacterium probiotics and Saccharomyces boulardii primarily. Lactobacillus spp. and Bacillus spp. (found in probiotics) can elevate firmicutes. It is further suggested to optimize the patient diet. A lower fat diet may assist to normalize the F/B ratio.



SAMPLE REPORT

01-Jan-1990 Male

P: 1300 688 522
E: info@nutripath.com.au

16 HARKER STREET
BURWOOD VIC 3125

Dr.SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

LAB ID : 3868737
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



Normal Bacterial Flora Comment

BACTEROIDES FRAGILIS LOW:

PHYLUM: Bacteroidetes

DESCRIPTION: Bacteroides fragilis is an anaerobic, Gram-negative bacterium. It is part of the normal microbiota of the human colon and is generally commensal. Bacteroides fragilis plays an intricate role in the human colon and usually has a beneficial relationship with the host. Low Bacteroides fragilis levels have been associated with inflammatory bowel disease and Crohn's.

TREATMENT SUGGESTIONS: Treatment may involve the use of probiotics and dietary modification.

LACTOBACILLUS SPECIES LOW NORMAL:

PHYLUM: Firmicutes

DESCRIPTION:
Lactobacillus species is below average.

Lactobacillus is a genus of Gram-positive rod-shaped, non-spore-forming bacteria which constitute a significantly important component of the human gastrointestinal system.

Lactobacillus exhibits a mutualistic relationship with the human body, as it protects the host against potential invasions by pathogens, and in turn, the host provides a source of nutrients. Lactobacilli are among the most common probiotic found in food such as yogurt, and it is diverse in its application to maintain gut health and to help treat ailments clinically such as diarrhea and obesity.

Lactobacillus species promote the anti-inflammatory response, thereby supporting the improvement of symptoms pertaining to asthma, chronic obstructive pulmonary disease, neuroinflammatory diseases, cardiovascular diseases, inflammatory bowel disease (IBD) and chronic infections in patients. Reduced levels increase the risk of infections and inflammation. Studies have also revealed that chronic psychological stress and alcohol use may be associated with a decrease in Lactobacillus species, as well as antibiotic / medication use.

TREATMENT SUGGESTIONS: Treatment may involve the use of Lactobacillus containing probiotics and treatment of any intestinal infections.

LACTOBACILLUS RHAMNOSUS LOW:

PHYLUM: Firmicutes

DESCRIPTION:
Lactobacillus Rhamnosus is a Gram-positive anaerobic bacterium and is one of the most widely used probiotic strains, of which various health effects are well documented including the prevention and treatment of gastro-intestinal infections and diarrhea and even preventing certain allergic symptoms.

Decreased Lactobacillus rhamnosus colonisation has been shown to decrease gastro-intestinal health, increasing the risk of gastro-intestinal infections and diarrhea as well as extra-intestinal infections including oral and respiratory health. Studies have also revealed that chronic psychological stress and alcohol use may be associated with a decrease in Lactobacillus species, as well as antibiotic / medication use.

TREATMENT SUGGESTIONS: Treatment may involve the use of Lactobacillus containing probiotics and treatment of any intestinal infections.

AKKERMANSIA MUCINIPHILA LOW:

PHYLUM: Verrucomicrobia

DESCRIPTION:
Akkermansia muciniphila is a Gram-negative, strictly anaerobic, non-motile bacterium, often considered a human intestinal symbiont. There is growing evidence to suggest that the prevalence of this bacteria is associated with intestinal homeostasis, immunity, and a healthy gut. Decreased colonisation levels may be associated with obesity, type 2 diabetes, and inflammation.

TREATMENT SUGGESTIONS: Treatment may involve the use of probiotics, treatment of any intestinal infections and dietary modification.



P: 1300 688 522
E: info@nutripath.com.au

Dr. SAMPLE REPORT
TEST HEALTH CENTRE
123 TEST STREET
BURWOOD VIC 3125

SAMPLE REPORT

01-Jan-1990 **Male**

16 HARKER STREET
BURWOOD VIC 3125

LAB ID : **3868737**
UR NO. :
Collection Date : 13-Feb-2023
Received Date:13-Feb-2023



3868737

FAECALIBACTERIUM PRAUSNITZII LOW:

PHYLUM: Firmicutes

DESCRIPTION:

Faecalibacterium prausnitzii is gram-positive, rod-shaped, anaerobic and is one of the most abundant and important commensal bacteria of the human gut microbiota. It is a key producer of Short Chain Fatty acids, has anti-inflammatory properties and may improve the imbalance in intestinal bacteria that leads to dysbiosis. Decreased colonisation of F. prausnitzii in the intestines have been associated with Crohn's disease, obesity, asthma, and major depressive disorders.

TREATMENT SUGGESTIONS: Treatment may involve the use of probiotics, treatment of any intestinal infections and dietary modification.



The Four “R” Treatment Protocol

REMOVE	Using a course of antimicrobial, antibacterial, antiviral or anti parasitic therapies in cases where organisms are present. It may also be necessary to remove offending foods, gluten, or medication that may be acting as antagonists. Consider testing IgG96 foods as a tool for removing offending foods.	ANTIMICROBIAL	Oil of oregano, berberine, caprylic acid
		ANTIBACTERIAL	Liquorice, zinc carnosine, mastic gum, tribulus, berberine, black walnut, caprylic acid, oil of oregano
		ANTIFUNGAL	Oil of oregano, caprylic acid, berberine, black walnut
		ANTIPARASTIC	Artemesia, black walnut, berberine, oil of oregano
		ANTIVIRAL	Cat’s claw, berberine, echinacea, vitamin C, vitamin D3, zinc, reishi mushrooms
		BIOFILM	Oil of oregano, protease
REPLACE	In cases of maldigestion or malabsorption, it may be necessary to restore proper digestion by supplementing with digestive enzymes.	DIGESTIVE SUPPORT	Betaine hydrochloride, tilactase, amylase, lipase, protease, apple cider vinegar, herbal bitters
REINOCULATE	Recolonisation with healthy, beneficial bacteria. Supplementation with probiotics, along with the use of prebiotics helps re-establish the proper microbial balance.	PREBIOTICS	Slippery elm, pectin, larch arabinogalactans
		PROBIOTICS	Bifidobacterium animalis sub lactise, lactobacillus acidophilus, lactobacillus plantarum, lactobacillus casei, bifidobacterium breve, bifidobacterium bifidum, bifidobacterium longum, lactobacillus salivarius ssp salivarius, lactobacillus paracasei, lactobacillus rhamnosus, Saccaromyces boulardii
REPAIR & REBALANCE	Restore the integrity of the gut mucosa by giving support to healthy mucosal cells, as well as immune support. Address whole body health and lifestyle factors so as to prevent future GI dysfunction.	INTESTINAL MUCOSA IMMUNE SUPPORT	Saccaromyces boulardii, lauric acid
		INTESTINAL BARRIER REPAIR	L-Glutamine, aloe vera, liquorice, marshmallow root, okra, quercetin, slippery elm, zinc carnosine, Saccaromyces boulardii, omega 3 essential fatty acids, B vitamins
		SUPPORT CONSIDERATION	Sleep, diet, exercise, and stress management