

## COMPLETE MICROBIOME MAPPING




### General Macroscopic Description

	Result	Markers
Stool Colour	Brown	<b>Colour</b> - Brown is the colour of normal stool. Other colours may indicate abnormal gut health.
Stool Form	Semiformed	<b>Form</b> -Sample form is categorised using the Bristol stool chart. A comment on stool appearance can be found in the comments section.
Mucous	Not Detected	<b>Mucous</b> - Mucous production may indicate the presence of an infection and/or inflammation.
Occult Blood	Negative	<b>Blood (Macro)</b> - 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









Methodology: GC/MS

Short Chain Fatty Acids, Beneficial	26.1	> 13.6	umol/g	
Butyrate	14.9	10.8 - 33.5	%	
Acetate	63.7	44.5 - 72.4	%	
Propionate	17.4	0.0 - 32.0	%	
Valerate	4.1	0.5 - 7.0	%	

### GIT Functional Markers

Result Range Units

Methodology: FEIA, EIA, CLIA, pH electrode

Calprotectin.	8.0	0.0 - 50.0	ug/g	
Pancreatic Elastase	>800.0	> 200.0	ug/g	
Secretory (slgA)	1251.9	510.0 - 2040.0	ng/mL	
Zonulin	82.3	0.0 - 107.0	ng/mL	
Beta glucuronidase	1472.5	368.0 - 6266.0	U/g	
Steatocrit	<1.0	0.0 - 10.0	%	
a-Transglutaminase IgA	<20	0.0 - 100.0	units/L	
pH	6.9	6.3 - 7.7		

### Microbiome Mapping Summary

#### Parasites & Worms

#### Bacteria & Viruses

#### Mycology

Bacillus species.  
Methanobrevibacter smithii  
Desulfovibrio piger  
Klebsiella pneumoniae complex.  
Helicobacter pylori

#### Key Phyla Microbiota

Firmicutes:Bacteroidetes Ratio

1.14 \*H < 1.00

RATIO



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





4127549

## Parasites and Worms.

### Parasitic Organisms

Result	Range	Units	
<dl	< 1.0	x10 <sup>5</sup> org/g	●
<dl	< 1.0	x10 <sup>5</sup> org/g	●
<dl	< 1.0	x10 <sup>5</sup> org/g	●
<dl	< 1.0	x10 <sup>5</sup> org/g	●
<dl	< 1.0	x10 <sup>5</sup> org/g	●
<dl	< 1.0	x10 <sup>5</sup> org/g	●
<dl	< 5.0	x10 <sup>5</sup> org/g	●
<dl	< 1.0	x10 <sup>5</sup> org/g	●

### Worms

Ancylostoma duodenale, Roundworm	Not Detected		
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	
9.26 *H	< 1.00	x10 <sup>4</sup> CFU/g	●
<dl	< 1.00	x10 <sup>5</sup> CFU/g	●
<dl	< 1.00	x10 <sup>5</sup> CFU/g	●
<dl	< 1.00	x10 <sup>5</sup> CFU/g	●
<dl	< 1.00	x10 <sup>4</sup> CFU/g	●
<dl	< 3.00	x10 <sup>4</sup> CFU/g	●
<dl	< 1.00	x10 <sup>3</sup> CFU/g	●
<dl	< 5.00	x10 <sup>3</sup> CFU/g	●
<dl	< 3.00	x10 <sup>4</sup> CFU/g	●
0.30	< 1.00	x10 <sup>6</sup> CFU/g	●
<dl	< 1.00	x10 <sup>4</sup> CFU/g	●
<dl	< 1.00	x10 <sup>6</sup> CFU/g	●
<dl	< 5.00	x10 <sup>6</sup> CFU/g	●
6.06 *H	< 1.00	x10 <sup>5</sup> CFU/g	●
41.70 *H	< 18.00	x10 <sup>6</sup> CFU/g	●
0.32	< 5.00	x10 <sup>5</sup> CFU/g	●

### Potential Autoimmune Triggers

<dl	< 5.00	x10 <sup>4</sup> CFU/g	●
<dl	< 5.00	x10 <sup>4</sup> CFU/g	●
<dl	< 5.00	x10 <sup>3</sup> CFU/g	●
8.50 *H	< 5.00	x10 <sup>5</sup> CFU/g	●
<dl	< 1.00	x10 <sup>9</sup> CFU/g	●
<dl	< 5.00	x10 <sup>5</sup> CFU/g	●
<dl	< 1.00	x10 <sup>4</sup> CFU/g	●
10.98	< 20.00	x10 <sup>4</sup> CFU/g	●



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

-.RACHEAL LEE (NPINS)  
THRIVE HEALTH  
SHOP 6/115 SHINGLEY DRIVE  
AIRLIE BEACH QLD 4802

CHLOE ELLIOTT  
28-Jan-1989 Female

28A POINCIANA STREET  
CRANBROOK QLD 4814

LAB ID : 4127549  
UR NO. : 6355824  
Collection Date : 28-Jul-2025  
Received Date: 01-Aug-2025



Mycology	Result	Range	Units	
Candida dubliniensis.	<dl	< 1.00	x10^5 CFU/g	
Candida glabrata.	<dl	< 1.00	x10^5 CFU/g	
Candida intermedia.	<dl	< 1.00	x10^5 CFU/g	
Candida krusei.	<dl	< 1.00	x10^5 CFU/g	
Candida lambica.	<dl	< 1.00	x10^5 CFU/g	
Candida lusitaniae.	<dl	< 1.00	x10^5 CFU/g	
Candida parapsilosis.	<dl	< 1.00	x10^5 CFU/g	
Candida tropicalis.	<dl	< 1.00	x10^5 CFU/g	
Candida albicans.	<dl	< 1.00	x10^5 CFU/g	
Candida famata.	<dl	< 1.00	x10^5 CFU/g	
Candida keyfr.	<dl	< 1.00	x10^5 CFU/g	
Candida lipolytica.	<dl	< 1.00	x10^5 CFU/g	
Geotrichum species.	<dl	< 1.00	x10^5 CFU/g	
Rhodotorula species.	<dl	< 1.00	x10^5 CFU/g	
Saccharomyces cerevisiae:	<dl	< 1.00	x10^5 CFU/g	



4127549

Bacterial Pathogens:	Result	Range	Units	
Aeromonas hydrophila.	<dl	< 1.00	x10 <sup>3</sup> CFU/g	
Campylobacter species.	<dl	< 1.00	x10 <sup>5</sup> CFU/g	
C. difficile, Toxin A	<dl	< 1.00	x10 <sup>4</sup> CFU/g	
C. difficile, Toxin B	<dl	< 1.00	x10 <sup>4</sup> CFU/g	
Enteraggregative E. coli	<dl	< 1.00	x10 <sup>3</sup> CFU/g	
Enteropathogenic E. coli	<dl	< 1.00	x10 <sup>3</sup> CFU/g	
E. coli O157	<dl	< 1.00	x10 <sup>2</sup> CFU/g	
Hypervirulent Clostridium difficile	<dl	< 1.00	x10 <sup>3</sup> CFU/g	
Enteroinvasive E. coli/Shigella	<dl	< 1.00	x10 <sup>3</sup> CFU/g	
Enterotoxigenic E. coli LT/ST	<dl	< 1.00	x10 <sup>5</sup> CFU/g	
Salmonella species.	<dl	< 1.00	x10 <sup>5</sup> CFU/g	
Shiga toxigenic E.coli	<dl	< 1.00	x10 <sup>3</sup> CFU/g	
Vibrio species.	<dl	< 1.00	x10 <sup>4</sup> CFU/g	
Yersinia species.	<dl	< 1.00	x10 <sup>5</sup> CFU/g	
Helicobacter pylori	5.4 *H	< 1.0	x10 <sup>3</sup> CFU/g	

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

Gene: A2142C	Not Detected		
Gene: A2142G	Not Detected		
Gene: A2143G	Not Detected		
H.pylori Virulence Factor, babA	Not Detected	H.pylori Virulence Factor, cagA	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		
Norovirus GI/II	Not Detected		
Rotavirus A	Not Detected		
Sapovirus (I,II,IV,V)	Not Detected		
Astrovirus (hAstro)	Not Detected		

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

28A POINCIANA STREET  
CRANBROOK QLD 4814

-.RACHEAL LEE (NPINS)  
THRIVE HEALTH  
SHOP 6/115 SHINGLEY DRIVE  
AIRLIE BEACH QLD 4802

LAB ID : 4127549  
UR NO. : 6355824  
Collection Date : 28-Jul-2025  
Received Date: 01-Aug-2025



4127549

Normal Bacterial GUT Flora.	Result	Range	Units	
<i>Bacteroides fragilis</i>	6.1	1.6 - 250.0	x10 <sup>5</sup> CFU/g	
<b>TOTAL BIFIDOBACTERIA</b>	<b>62.7</b>	5.0 - 2000.0	x10 <sup>6</sup> CFU/g	
<i>Bifidobacterium adolescentis</i>	1.0 *L	4.6 - 1000.0	x10 <sup>6</sup> CFU/g	
<i>Bifidobacterium bifidum.</i>	44.8	4.6 - 1000.0	x10 <sup>6</sup> CFU/g	
<i>Bifidobacterium breve.</i>	<dl	4.6 - 1000.0	x10 <sup>6</sup> CFU/g	
<i>Bifidobacterium longum</i>	16.9	4.6 - 1000.0	x10 <sup>6</sup> CFU/g	
<i>Enterococcus species</i>	92.3	1.9 - 2000.0	x10 <sup>3</sup> CFU/g	
<i>Escherichia species</i>	1883.6	3.7 - 3800.0	x10 <sup>4</sup> CFU/g	
<b>TOTAL LACTOBACILLI</b>	<b>26.3</b>	1.7 - 3000.0	x10 <sup>3</sup> CFU/g	
<i>Lactobacillus acidophilus.</i>	<dl	1.7 - 500.0	x10 <sup>3</sup> CFU/g	
<i>Lactobacillus casei.</i>	8.3	1.7 - 500.0	x10 <sup>3</sup> CFU/g	
<i>Lactobacillus delbrueckii</i>	0.3 *L	1.7 - 500.0	x10 <sup>3</sup> CFU/g	
<i>Lactobacillus plantarum.</i>	17.2	1.7 - 500.0	x10 <sup>3</sup> CFU/g	
<i>Lactobacillus rhamnosus</i>	0.5 *L	1.7 - 500.0	x10 <sup>3</sup> CFU/g	
<i>Lactobacillus salivarius</i>	<dl	1.7 - 500.0	x10 <sup>3</sup> CFU/g	
<i>Clostridium species</i>	60.6 *H	5.0 - 50.0	x10 <sup>7</sup> CFU/g	
<i>Oxalobacter formigenes</i>	162.39	> 5.00	x10 <sup>6</sup> CFU/g	
<i>Akkermansia muciniphila</i>	14.02	1.00 - 50.00	x10 <sup>7</sup> CFU/g	
<i>Faecalibacterium prausnitzii</i>	524.4	100.0 - 3500.0	x10 <sup>6</sup> CFU/g	

A total count of *Lactobacillus* and *Bifidobacterium* has been included to offer a broad overview of the species present in the microbiome, which may assist in guiding clinical treatment decisions. However, identifying individual strains of *Lactobacillus* and *Bifidobacterium* can yield more detailed and clinically specific information, as different strains exhibit distinct physiological effects, as outlined in the probiotics action chart below.

## Actions







	<i>S. thermophilus</i> FP4	<i>S. boulardii</i> CNCM I-1079	<i>B. longum</i> Rosell-75	<i>L. rhamnosus</i> Rosell-11	<i>L. helveticus</i> Rosell-52	<i>L. salivarius</i> LS03	<i>L. fermentum</i> LF10	<i>B. breve</i> B632	<i>L. salivarius</i> LS01	<i>L. fermentum</i> LF16	<i>B. longum</i> 04	<i>L. rhamnosus</i> LR06	<i>L. plantarum</i> LP01	<i>B. animalis</i> subsp. <i>lactis</i> BA05	<i>L. crispatus</i> strains	<i>L. fermentum</i> LF08	<i>B. breve</i> BR03	<i>L. casei</i> LC03	<i>B. animalis</i> subsp. <i>lactis</i> BS01	<i>L. acidophilus</i> LA02	<i>L. rhamnosus</i> GG	<i>L. plantarum</i> 299V	<i>L. plantarum</i> 6595	<i>L. plantarum</i> HEAL19	<i>L. paracasei</i> 8700:2	<i>L. plantarum</i> HEAL9
Intestinal epithelial barrier health																										
Mucous membrane health																										
Normalisation of bowel movements																										
Normalisation of bloating																										
Normalisation of peristalsis																										
Autoimmune immunomodulation																										
Inhibition of pathogenic overgrowth																										
Inactivate microbial toxins																										
Increase infection resistance																										
Th1/Th2 immune cell modulation																										
Staphylococci inhibition																										
Gut-brain axis support																										
GABA production																										
Bone resorption inhibition																										
<i>E. coli</i> inhibition																										
Oxalate degradation																										



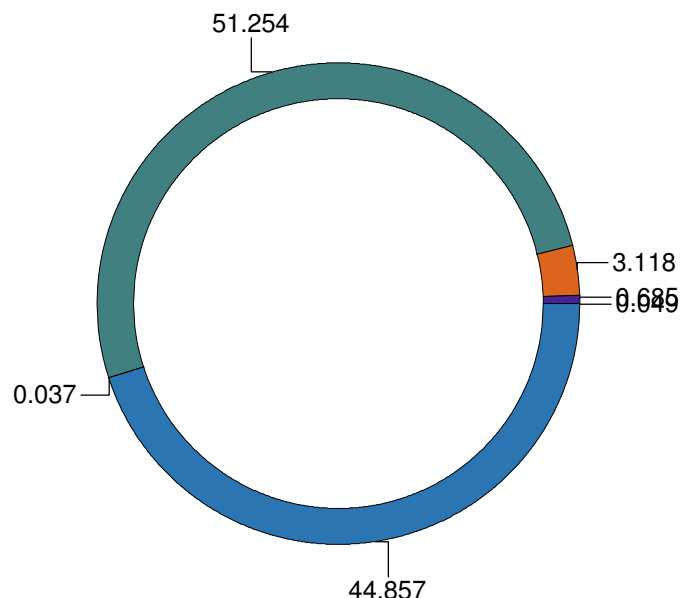
4127549

#### Introduction:

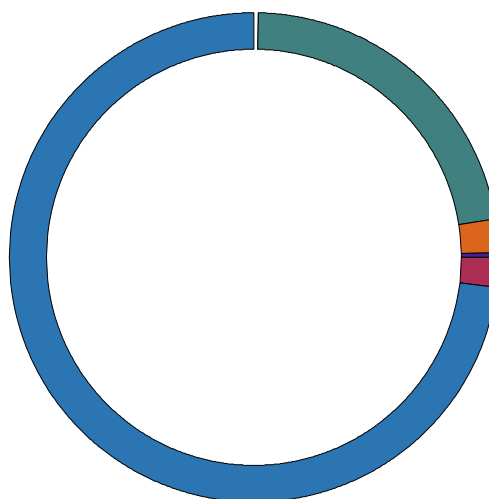
Your gut microbiome is a collective name for the 40 trillion cells and up to 1000 microbial species that include bacteria, viruses, fungi, parasites, and archaea and reside in our gut. The number of gut bacterial cells is approximately equal to the total number of human cells in our body, so if we consider 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	51.254 *H	3.500 - 40.000	%
 Bacteroidetes Phylum	44.857 *L	50.000 - 95.000	%
 Proteobacteria Phylum	3.118	0.050 - 12.500	%
 Verrucomicrobia Phylum	0.685	0.000 - 2.400	%
 Actinobacteria Phylum	0.049	0.001 - 4.818	%
 Euryarchaeota Phylum	0.037 *H	0.000 - 0.010	%

**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

-.RACHEAL LEE (NPINS)  
THRIVE HEALTH  
SHOP 6/115 SHINGLEY DRIVE  
AIRLIE BEACH QLD 4802

**CHLOE ELLIOTT**  
**28-Jan-1989**      **Female**

28A POINCIANA STREET  
CRANBROOK QLD 4814

LAB ID : 4127549  
UR NO. : 6355824  
Collection Date : 28-Jul-2025  
Received Date: 01-Aug-2025



4127549

## Pathogen Summary:

### Macroscopy Comment

BROWN coloured stool is considered normal in appearance.

A SEMI-FORMED stool specimen classified as Type 4 on the Bristol Stool Chart is generally considered optimal, indicating balanced gut motility, adequate hydration, and sufficient dietary fibre intake. This stool consistency is often associated with efficient digestion, proper colonic function, and microbial stability. However, while Type 4 stools typically suggest gastrointestinal homeostasis, they do not always correlate with a healthy gut microbiome. Pathogenic bacteria, viral infections, parasitic infestations, or gut dysbiosis may still be present, even in well-formed stools. Clinical recommendations include maintaining a fiber-rich diet with prebiotic and probiotic sources, ensuring consistent hydration, and promoting gut microbial diversity through fermented foods or supplementation.

### Faecal Occult Blood Negative:

Faecal occult blood has not been detected in this specimen. If the test result is negative and clinical symptoms persist, additional follow-up testing using other clinical methods is recommended.

### 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.





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

-.RACHEAL LEE (NPINS)  
THRIVE HEALTH  
SHOP 6/115 SHINGLEY DRIVE  
AIRLIE BEACH QLD 4802

**CHLOE ELLIOTT**  
**28-Jan-1989**      **Female**

28A POINCIANA STREET  
CRANBROOK QLD 4814

LAB ID : 4127549  
UR NO. : 6355824  
Collection Date : 28-Jul-2025  
Received Date: 01-Aug-2025



4127549

## 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 should be producing >500 ug/g of PE-1 under normal/healthy conditions.

PE-1 levels between 200 - 500 ug/g may indicate suboptimal production.

PE-1 levels <200 ug/g indicate clear inadequate production.

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.

Testing performed by chemiluminescence immunoassay (CLIA).

**CALPROTECTIN Normal:**

Faecal calprotectin values <50 ug/g are not indicative of inflammation in the gastrointestinal tract. Subjects with low faecal calprotectin levels normally do not need to be further investigated by invasive procedures. In patients with strong clinical indications of intestinal inflammation, repeat testing may be useful.

Test performed by Diasorin Liaison XL chemiluminescent immunoassay (CLIA).

**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.

**ZONULIN HIGH NORMAL:**

Zonulin is a protein that modulates intestinal barrier function and can also be considered as a potential inflammatory marker.

Although this result is within range, the result should be interpreted with patient clinical symptoms as well as reviewing the presence of other proteobacteria that may be the result of increased Zonulin.

**Beta-GLUCORONIDASE NORMAL:**

B-Glucuronidase is considered normal and is within reference range.





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

-.RACHEAL LEE (NPINS)  
THRIVE HEALTH  
SHOP 6/115 SHINGLEY DRIVE  
AIRLIE BEACH QLD 4802

**CHLOE ELLIOTT**  
**28-Jan-1989**      **Female**

28A POINCIANA STREET  
CRANBROOK QLD 4814

LAB ID : 4127549  
UR NO. : 6355824  
Collection Date : 28-Jul-2025  
Received Date: 01-Aug-2025



4127549

## Opportunistic Bacteria Comment

BACILLUS SPECIES ELEVATED:

PHYLUM: Firmicutes

### DESCRIPTION:

Bacillus species are spore forming, gram-positive rods belonging to the Bacillaceae family. The majority of Bacillus species have little or no pathogenicity. However, some species, particularly Bacillus cereus and licheniformis, have been implicated in food poisoning and opportunistic infections, which may be characterised by abdominal pain with diarrhea or nausea and vomiting and transmitted via ingestion of contaminated food.

### TREATMENT SUGGESTIONS:

Infection is usually self-limited and does not require any targeted therapy. In severe cases or immunocompromised, treatment with vancomycin, gentamicin, chloramphenicol, or carbapenems should be considered. Rule out allergy to above medication before prescribing/taking.

METHANOBREVIBACTER SMITHII ELEVATED:

PHYLUM: Euryarchaeota

### DESCRIPTION:

Methanobrevibacter smithii is a methane-producing microbe that plays an important role in the gut ecosystem by facilitating carbohydrate fermentation and production of short-chain fatty acids by commensal bacteria. Elevated levels may be associated with abdominal bloating, constipation, flatulence, inflammatory bowel disease (IBD), irritable bowel syndrome (IBS), colorectal cancer, diverticulosis or obesity and often correlate with a positive SIBO test.

Methanobrevibacter smithii has also been closely correlated with the presence of Blastocystis hominis.

### TREATMENT SUGGESTIONS:

Elimination of methanogenic flora using antibiotic treatment may contribute to therapeutic benefits and include neomycin or rifaximin. Antimicrobial herbs may also be beneficial in treatment (including garlic and oregano). Rule out allergy to above medication before prescribing/taking.

DESULFOVIBRIO PIGER ELEVATED:

PHYLUM: Proteobacterium

### DESCRIPTION:

Desulfovibrio piger is part of a group called sulfate-reducing bacteria (SRB) and are normal inhabitants of the intestine. Sulfate is present in different concentrations in the intestine dependent on diet. Remnants not absorbed, alongside the presence of lactate, promote the growth of SRB. Desulfovibrio Piger has been implicated in gastrointestinal disorders such as ulcerative colitis via the reduction of sulfate to hydrogen sulfide in the gut. High Desulfovibrio piger levels may be associated with diarrhea or inflammatory bowel disease.

### TREATMENT SUGGESTIONS:

Treatment options include lowering the intake of sulfate rich foods such as some breads, dried fruits, beers, ciders and wines. It is also suggested to avoid foods high in fat.

## Potential Autoimmune Comments

KLEBSIELLA PNEUMONIAE COMPLEX ELEVATED:

PHYLUM: Proteobacteria

### DESCRIPTION:

Klebsiella pneumoniae is a gram-negative, encapsulated, non-motile bacterium found in the environment and typically colonizes human mucosal surfaces of the oropharynx and gastrointestinal tract. Increased colonisation causes insult to the intestinal mucosa via the secretion of toxins and subsequent inflammatory response that may lead to inflammation-related gastrointestinal diseases. It is typically associated with diseases related to upper respiratory tract infection; however, elevated levels may be associated with gastrointestinal diseases such as Irritable bowel disease, Crohn's and ulcerative colitis.

### TREATMENT SUGGESTIONS:

Treating K. pneumoniae infections is difficult due to the increased emergence in resistant strains and if treatment is warranted, a



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

-.RACHEAL LEE (NPINS)  
THRIVE HEALTH  
SHOP 6/115 SHINGLEY DRIVE  
AIRLIE BEACH QLD 4802

**CHLOE ELLIOTT**  
**28-Jan-1989**      **Female**

28A POINCIANA STREET  
CRANBROOK QLD 4814

LAB ID : 4127549  
UR NO. : 6355824  
Collection Date : 28-Jul-2025  
Received Date: 01-Aug-2025



4127549

combination of antibiotics may be used. Klebsiella appears to thrive in individuals on a high starch diet. Avoiding carbohydrates such as rice, potatoes, flour products and sugary foods may reduce the amount of Klebsiella in the gut. The use of herbal antimicrobials oregano (*Origanum vulgare*), sage (*Salvia officinalis*) or thyme (*Thymus vulgaris*) may also be effective.

### Bacterial Pathogens Comment

HELICOBACTER PYLORI ELEVATED:

PHYLUM: Proteobacteria

#### DESCRIPTION:

*Helicobacter pylori* is a gram-negative bacterium found on the luminal surface of the gastric epithelium.

An elevated result indicates a current infection and is not affected by the presence of other organisms, antacids, barium sulphate, blood or fat. Please correlate infection clinically with signs and symptoms.

#### Treatment:

Triple therapy: PPI, clarithromycin and amoxicillin or metronidazole, 7-14 days.

If penicillin allergic: PPI, clarithromycin and clindamycin or metronidazole, 7-14 days.

If the patient is asymptomatic consider other alternative therapies including:

- o Black currant seed oil and fish oil
- o Lactobacillus Probiotics
- o Vitamin C
- o Mastic gum.



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

-.RACHEAL LEE (NPINS)  
THRIVE HEALTH  
SHOP 6/115 SHINGLEY DRIVE  
AIRLIE BEACH QLD 4802

**CHLOE ELLIOTT**  
**28-Jan-1989**      **Female**

28A POINCIANA STREET  
CRANBROOK QLD 4814

LAB ID : 4127549  
UR NO. : 6355824  
Collection Date : 28-Jul-2025  
Received Date: 01-Aug-2025



4127549

## 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/BACTEROIDETES 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.

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 off internal cohort studies.

### 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.

## EURYARCHAEOTA (PHYLUM) ELEVATED:

### DESCRIPTION:

Euryarchaeota are a phylum of a diverse range of bacteria, including methanogens, halophiles and sulfate-reducers. Three distinct species within the group of Euryarchaeota have been regularly detected within the human body. Among these is the primary colonizer of the human gut system Methanobrevibacter smithii and the less frequently found species Methanosphaera stadtmanae, while in the oral cavity M. oralis is the predominating methanogenic species. Methanogens support the growth of fermenting bacteria, which themselves could be either true pathogens or at least opportunistic pathogens but also members of the commensal flora.

They may also transform heavy metals or metalloids into volatile methylated derivatives which are known to be more toxic than the original compounds. Elevated Euryarchaeota may be associated with inflammatory bowel disease, Crohn's, irritable bowel syndrome, colorectal cancer, diverticulosis, and obesity. It may also affect short chain fatty acid production and absorption.

TREATMENT SUGGESTIONS: If treatment is warranted, Statins may be used to inhibit methanogenic archaea growth without affecting bacterial numbers. Symptoms may also be treated with dietary modification (low FODMAP) and probiotics.

A lactulose SIBO test may be considered to assess Methanogen levels.



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

-.RACHEAL LEE (NPINS)  
THRIVE HEALTH  
SHOP 6/115 SHINGLEY DRIVE  
AIRLIE BEACH QLD 4802

**CHLOE ELLIOTT**  
**28-Jan-1989**      **Female**

28A POINCIANA STREET  
CRANBROOK QLD 4814

LAB ID : 4127549  
UR NO. : 6355824  
Collection Date : 28-Jul-2025  
Received Date: 01-Aug-2025



4127549

## Normal Bacterial Flora Comment

BIFIDOBACTERIUM ADOLESCENTIS LOW:

PHYLUM: Actinobacteria

### DESCRIPTION:

Bifidobacterium adolescentis is an anaerobic species of bacteria found in the gastrointestinal tracts of humans. It is one of the most abundant and prevalent Bifidobacterium species commonly found in adults. It contributes to the production of GABA, a neurotransmitter that plays a role in reducing stress and anxiety. Some strains can synthesise B vitamins, such as folic acid. B. adolescentis enhances the growth of all bifidobacteria.

### TREATMENT SUGGESTIONS:

Consider a probiotic supplement containing B. adolescentis and consuming prebiotic-rich foods like garlic, onions, and whole grains. Increase dietary fibre from fruits, vegetables, and legumes, and incorporate fermented foods such as yogurt and kefir.

BIFIDOBACTERIUM BREVE LOW:

PHYLUM: Actinobacteria

### DESCRIPTION:

Bifidobacterium breve is a Gram-positive, anaerobic bacterium that is commonly found in the human gastrointestinal tract, particularly in the intestines of infants. B. breve is known for its ability to metabolise various carbohydrates, including human milk oligosaccharides, which is essential for the development of a healthy gut flora in newborns. Studies demonstrate that B. breve exhibits several beneficial properties, including the production of short-chain fatty acids (SCFAs) such as acetate, which contribute to gut health by lowering pH and inhibiting the growth of pathogenic bacteria. Additionally, B. breve may alleviate symptoms of irritable bowel syndrome (IBS) and improve symptoms of atopic dermatitis.

LACTOBACILLUS ACIDOPHILUS LOW:

PHYLUM: Firmicutes

### DESCRIPTION:

Lactobacillus acidophilus is a Gram-positive, rod-shaped, non-spore-forming bacterium commonly found in the human gut and fermented foods. It plays a key role in oxalate degradation, bowel normalisation and may assist patients with bloating.

### TREATMENT SUGGESTIONS:

Consider probiotic supplementation containing L. acidophilus.

LACTOBACILLUS DELBRUECKII LOW:

PHYLUM: Firmicutes

### DESCRIPTION:

Lactobacillus delbrueckii is a beneficial Gram-positive bacterium commonly found in the gut microbiome and known for its role in maintaining gastrointestinal health. It produces lactic acid through the fermentation of carbohydrates, contributing to a lower gut pH, which inhibits the growth of pathogenic microorganisms such as Clostridium and Candida species. Additionally, L. delbrueckii can enhance the intestinal barrier function and modulate the host immune response by promoting the production of anti-inflammatory cytokines. Its presence in the gut is associated with improved digestion and nutrient absorption, making it an important component in supporting overall gut health and microbial balance.

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.



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

**-.RACHEAL LEE (NPINS)**  
**THRIVE HEALTH**  
**SHOP 6/115 SHINGLEY DRIVE**  
**AIRLIE BEACH QLD 4802**

**CHLOE ELLIOTT**  
**28-Jan-1989** **Female**

**28A POINCIANA STREET**  
**CRANBROOK QLD 4814**

**LAB ID :** 4127549  
**UR NO. :** 6355824  
**Collection Date :** 28-Jul-2025  
**Received Date:** 01-Aug-2025



**4127549**

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

**LACTOBACILLUS SALIVARIUS LOW:**

**PHYLUM:** Firmicutes

**DESCRIPTION:**

Lactobacillus salivarius is a Gram-positive, rod-shaped, non-spore-forming bacterium predominantly found in the human oral cavity, gastrointestinal tract, and vagina. It plays a significant role in maintaining oral and gut health by producing lactic acid and bacteriocins, which inhibit the growth of pathogenic bacteria. L. salivarius enhances gut barrier function, modulates the immune system, and helps in the digestion of proteins and complex carbohydrates. It has been studied for its potential benefits in managing conditions such as irritable bowel syndrome (IBS), periodontal disease, and atopic dermatitis, highlighting its importance in promoting overall health and preventing infections.

**TREATMENT SUGGESTIONS:**

Consider L. salivarius as a probiotic strain which may improve intestinal permeability and immune response.

**CLOSTRIDIUM SPECIES ELEVATED:**

**PHYLUM:** Firmicutes

**DESCRIPTION:**

Clostridium is a genus of anaerobic, Gram-positive bacteria found in the environment and the intestinal tract. This genus includes several species and can utilize large amounts of nutrients that cannot be digested by host and produce short-chain fatty acids (SCFAs), which play a noticeable role in intestinal homeostasis. Colonisation of Clostridium species may be affected by diet (carbohydrate and protein in diet) and general health and may be protective against inflammation and infection. However, some species may act as potential pathogens. Elevated Clostridium species may indirectly damage the intestinal epithelial cells. Another symptom may include constipation.

**TREATMENT SUGGESTIONS:** Treatment may involve the use of probiotics, treatment of any intestinal infections and dietary modification (reduce consumption of different fibres, such as inulin, oligofructose, arabinoxylan, guar gum and starch).



# 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
		ANTIPARASITIC	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 subsp. lactis, lactobacillus acidophilus, lactobacillus plantarum, lactobacillus casei, bifidobacterium breve, bifidobacterium bifidum, bifidobacterium longum, lactobacillus 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