

Patient Information

GI Map Digestive Test

Mind your microbiome!

There is an abundance of research telling us how important our microbiome is for our health. The collection of good bacteria and the important environment created within our gut plays a huge role in our **immune health, mental health, weight management** and of course **digestion and absorption** of all the nutrients we need to get from our food.

How to keep your microbiome healthy

It has been shown that eating a diverse diet with a range of fruit, vegetables and fibre-rich foods is the best way to maintain a healthy population of 'good bacteria'. Sometimes the balance can be tipped however, which can easily lead to the destruction of the friendly bacteria. This can happen through the use of antibiotics, steroids, hormone pills, high alcohol and sugar consumption and even stress. Once large colonies of these friendly bacteria are destroyed you may be vulnerable to infections and problems relating to the proliferation of their unfriendly neighbours.

What's different about this test?

This comprehensive test is the most accurate analysis of your gut microbiome. The technique used to examine the microbe populations looks for the **presence of DNA** rather than relying on the growth of the microbes under laboratory conditions. Gut microbes live in a very different environment to that which is replicated in the lab. Many of the bacteria simply will not grow in the presence of oxygen for example. This test acts more like a forensic detective, even traces of DNA can be identified, amplified and accurately quantified. This is cutting edge technology and surpasses other stool tests completely.

What does the test measure?

Bacteria

This test measures good bacteria, bad bacteria and everything in between. Your good bacteria are essential for health and the regulation of your immune system and should be present in good number in order to crowd out the bad guys. Opportunistic bacteria are those that under normal circumstance will be kept in check by the good bacteria but given a poor gut environment can grow and cause symptoms in some.

This test also looks for known pathogenic bacteria which can cause infections and disease, including *E. coli*, *C difficile* and *Helicobacter pylori*. A bacterial marker, beta-glucuronidase, can be raised in the presence of 'bad bacteria'. This has an impact on our detoxification of possibly carcinogenic compounds in the gut and in hormone recirculation. Virulence factors are also included; these are genes in bacteria that mean they are more likely to cause symptoms for you. Types of bacteria that are known to be more commonly found in people with autoimmune diseases can also be identified, which may indicate risk of disease.

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In addition, the overall balance of bacterial families is given, which can be altered in a Western diet or diet high in processed foods and low in diversity.

Yeast

Some yeasts are normal in the gut, but an overgrowth of yeast or different yeast strains might indicate an unfavourable environment and may contribute to symptoms of 'brain fog', sugar cravings, bloating and discomfort.

Viruses

Viruses known to cause gastrointestinal upset such as Norovirus can be reliably detected. In addition, there is analysis for Cytomegalovirus (CMV) and Epstein-Barr virus which may play a role in fatigue or chronic fatigue.

Parasites and Worms

While unpleasant, many worms and parasites do not cause us trouble. However, if you have a lowered immune response, a sensitive gut or another infection or overgrowth, it is thought that parasites or worms may cause symptoms in some individuals.

Markers of Digestion

We need to digest our food in order to absorb the critical nutrients it supplies. A measurement of fat breakdown and secretion of digestive enzymes is included to give information on how you are breaking down your food.

Intestinal Health and Inflammation

Markers of your immune defences, active inflammation and the presence of blood is an important component of this comprehensive test. Understanding whether you have active inflammation or whether your body is able to fight off bacterial overgrowth or infection is critical to your recovery.

Gut permeability or 'leaky gut' – Optional add-on

Zonulin is a reliable marker of increased gut permeability, commonly referred to as leaky gut. When the integrity of the gut lining is damaged, immune reactions can be triggered which lead to inflammation linked with various conditions such as autoimmune conditions, fatty liver disease and mental health issues. This is often a 'root cause' of perceived food intolerances and improving gut health and restoring the health of the lining can be a key step in improving tolerance to foods, reducing immune reactions and reducing symptoms.

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Who should take this test?

Anyone with any of the following symptoms should take this test*:

- Digestive issues from reflux, irritated stomach or bowel, distension or bloating, feelings of extreme fullness after eating, cramps, diarrhoea or constipation, fatty or floating stools
- Reactions to foods which may be difficult to pin-point
- Immune-related issues such as skin rashes, unexplained joint or muscle pain,
- Those with a diagnosed autoimmune conditions
- Unexplained fatigue, brain fog
- Weight loss-resistance

*Please note that this test can be used as an informative analysis of your gut microbiome. However, we would always advise speaking with one of our Nutritionists as to the suitability of this test for you, depending on your symptoms and health goal.

Test Procedure

- Please note that a letter with your results will be sent to your GP. You will be asked for consent and your GP details before receipt of the kit.
- The test kit will be provided to you at our clinic along with a courier pack to return the sample.
- Please pay the clinic directly on receipt of your kit.
- The instructions are detailed so please read carefully before proceeding.
- You will need to wait at least 2 weeks after taking antibiotics or 4 weeks after colonic irrigation. Please stop taking probiotic supplements 3 days before the test and probiotic foods at least 5 days before.
- Just one small stool sample is required.
- Please follow the instructions for the courier pack provided with the kit. Please do not send samples on a Thursday or Friday to the UK to prevent delivery at the weekend.
- The test results will be returned to your nutritionist within 2 weeks of receipt of the samples. Test results will be interpreted by your nutritionist and a protocol tailored accordingly.

If you have any further questions relating to this or the suitability of this test for you, please email us on clinic@glenvillenutrition.ie or call 01-4020777.