



## Diagnosing Coeliac Disease

### What is coeliac disease?

Coeliac disease is an autoimmune condition where the body acts abnormally in response to the protein gluten. For the 1-2% of the population who have coeliac disease, eating gluten will trigger a release of antibodies that attack the lining of the small bowel. The resulting damage affects nutrient absorption and potentially leads to abdominal symptoms (e.g. diarrhoea, cramping or nausea), iron deficiency, osteoporosis, fertility problems and even lymphoma. Importantly, some people with active coeliac disease have only mild 'IBS-like' symptoms, and some have no gut symptoms at all. For this reason, coeliac disease can often go undiagnosed. Regardless of symptoms, coeliac disease is a serious condition. At the present moment, the only treatment we have for coeliac disease is a strict gluten free diet for life, including care to avoid cross contamination.

### What is Irritable Bowel Syndrome?

Irritable bowel syndrome (IBS), on the other hand, does not cause damage to the bowel nor does it lead to long term health complications. It does cause rather nasty symptoms. The treatment for IBS is focused on minimising symptoms. This is done by limiting your trigger foods enough that you stay under your symptom threshold. There is no need to be concerned with cross contamination, and if you do choose to eat something that triggers your IBS, the worst part is the symptoms.

### How is coeliac disease diagnosed?

Given the seriousness of coeliac disease, having an accurate diagnosis is important for long term health and wellbeing. Coeliac disease is a genetic condition that is environmentally triggered. About 30% of the population are born with genes that predispose them to coeliac disease (the most common genes being HLA DQ2 and HLA DQ8). Gene testing is available using a blood test or 'buccal swab' – a scraping of skin cells from inside the mouth, which is lot less invasive.

**If the gene test is positive, it doesn't mean that you have coeliac disease – just that you have the potential to develop it. If the gene test is negative, coeliac disease can be excluded**

We don't know why coeliac disease 'switches on' in some people (around 1/70 of the population), but it can occur at any stage of life. In this case, when the person eats gluten, antibodies called tTG-IgA and DGP are produced, triggering the characteristic small bowel damage seen in coeliac disease.



### Diagnosing coeliac disease is a two-step process:

1. A blood test to screen for the likelihood of coeliac disease. This blood test looks for the presence of tTG-IgA and DGP antibodies.
2. If the blood test is positive, a gastroscopy is performed and a biopsy taken from the small bowel. This biopsy is examined under a microscope to assess for damage.

**Since both of these tests are looking for either antibodies or damage caused when someone with coeliac disease eats gluten, it is important to be tested before going on a gluten free diet.**

If you are already gluten free, the tests may give a false negative, regardless of if you have coeliac disease or not. In this case you will need to do a “gluten challenge” to know for sure if you have coeliac disease or not.

### Low FODMAP gluten challenge

Official recommendations for a gluten challenge are to eat approximately 2-4 slices of wheat bread per day for 4-6 weeks prior to coeliac testing. It's important to note, that gluten is the protein in wheat, barley, rye and oats. FODMAPs are the carbohydrate in wheat, barley, rye and oats. FODMAPs and gluten are different molecules that sometimes occur in the same foods. This means you can do a gluten challenge within the confines of a low FODMAP diet

Low FODMAP serves of wheat suitable for including in a gluten challenge:

- 2 slices of FODMAP Friendly certified wheat breads (Alpine® Bread or Bakers Delight® LoFo loaf)
- 2 slices of spelt or wheat sourdough bread
- 1 slice of regular wheat bread
- ½ cup of regular wheat pasta (equivalent of 1 slice of wheat bread)

During the low FODMAP diet, you can have multiple serves per day as long as you space your serves with about a through the day.

For example, to achieve the equivalent of 4 slices of wheat bread per day, you could have:

*Breakfast* – 7am: 2 slices of low FODMAP wheat bread

*Lunch* – 12:00: 1 slice of regular wheat bread

*Dinner* – 6pm: ½ cup wheat pasta

Alternatively, Vital Wheat Gluten is a low FODMAP flour that is almost pure gluten, and can be added to baking or a smoothie. To meet the requirements of a gluten challenge, you would need to eat approximately 5g (1 tsp) of vital wheat gluten per day.