

# The Problem of Gluten

**Gluten is a component of wheat. Originally wheat contained about 10% gluten but now it contains 80%. In addition wheat now contains 23,000 proteins and we can be sensitive to any one of these. In 1950 the incidence of coeliac disease was 1 in 8000; now it is between 1 in 30 and 1 in 100. However many people who don't have coeliac disease do have gluten intolerance: now referred to as non-coeliac gluten sensitivity (NCGS). Neurobiologist Dr Vajdami believes 30% of the Western population is gluten intolerant. What we definitely can say it is becoming much commoner. What is going on?**

## Why has Gluten become such an issue?

**There are six reasons. The composition of wheat has changed and there is far more gluten in wheat than before. In addition gluten is added to a wide variety of foods. There were once 80 strains of wheat but now there are only 5.**

**Secondly, genetically modified bacterial enzymes (MTG) are added to a wide range of foods and these react with gliaden. ELISA testing shows 80% of the population are sensitive to standard gluten and 80% are sensitive to this MTG. This gluten sensitivity does not show up on standard testing.**

**Thirdly, nearly all wheat and gluten contains traces of glyphosphate (Roundup). This is highly toxic and damages the gut and the bacteria flora within it. It is interesting that glyphosphate causes a disease like coeliac disease in fish once it gets into the water.**

**Fourthly gluten is added to formula feeds. In one study the risk of coeliac disease was increased 23 times from this exposure during the first three months of life. Continuing breast-feeding into the weaning period reduces the risk.**

**Fifthly deamination is used by the food industry to make wheat water-soluble and this can cause severe inflammatory reactions.**

**Lastly a large number of the friendly gut bacteria normally break down gluten. But today many people do not have these bacteria or not enough of them. Their gut has become gluten intolerant due to the many threats to these bacteria such as antibiotics, proton pump inhibitors, high sugar diet, lack of soluble fibre and fermented food in the diet.**

### **Who is at Risk?**

**Those with persistent unexplained abdominal pain, prolonged fatigue, recurrent mouth ulcers, unexpected weight loss, unexplained iron, B12 or folate deficiency, those with irritable bowel syndrome of unknown cause, those with thyroid disease and relatives of those with coeliac disease. Others where gluten sensitivity needs to be considered are those with osteoporosis, unexplained neurological symptoms (especially peripheral neuropathy and chronic headaches), schizophrenia, and those with subfertility or recurrent miscarriage.**

### **What does Gluten do to us?**

**Gluten sensitivity causes inflammation in the wall of the gut and gliaden (a protein found in gluten) increases gut permeability (called leaky gut). Gluten alters our gut bacteria (which are a key part of our immune system). This leads to toxic substances leaking through the gut wall. These can then cause inflammation in other parts of the body. Inflammation is the cause of a wide variety of chronic illnesses. For instance one study showed 54% of neurological patients had antibodies to gluten. Anti-gliaden antibodies can cross-react with brain antigens causing inflammation in the brain.**

### **Testing**

**This is complex. The standard blood test is TTG (transglutaminase). In my experience this is rarely positive and is not a very sensitive test. This has replaced anti-gliaden antibodies and endomysial antibodies (EMA) in most labs. A problem with TTG is that it can be falsely negative in the presence of low IgA. It will also be negative if the patient has taken themselves off gluten. It is crucial that IGA is measured along with TTG as IgA deficiency is 10 times more common in celiac disease. Another test called DGP (deaminated gliadin peptides) is sometimes used when TTG is negative and celiac disease is strongly suspected. This is mostly useful in children.**

**Sometimes genetic tests are useful. 95% of coeliac patients have the HLA-DQ2 haplotype and the remaining 5% have the HLA-DQ8 haplotype. However a high percentage (30%) of the population have one of these haptotypes so a positive test has limited value. However a negative test virtually rules out coeliac disease**

**More complex tests such as ELISA antibodies show that up to 80% of the population have antibodies to gluten. This does not indicate coeliac disease or gluten sensitivity but does indicate a harmful effect from the gluten. Probably the best test is the Cyrex Series 3 but this is expensive and not available on the NHS. It measures antibodies to the two molecules in gluten.**

**At the renowned Tahoma Clinic in USA they measure sIgA antigliaden antibodies. They find 90% of patients with auto-immune disease test positive to this, suggesting gluten is an important factor in many auto-immune diseases.**