

## WHAT IS GLUTEN AND WHY HAS IT CHANGED?

Over the last 50 years there has been a significant amount of research carried out on gluten and its effect on people but just how much do we know about gluten and where it can be found? The majority of this research has covered the grains wheat, barley and rye which are known as the main causes of Coeliac Disease. However it is not just Coeliacs who must avoid gluten as there is a significant number of people who suffer from Gluten Sensitive Disorders.

But what exactly is gluten and why is it causing so many people problems now? gluten is recognised as providing the elasticity in dough and helps baked foods keep their shape. When gluten is removed from foods it can affect the taste, texture and shape in foods. In scientific terms, gluten is seen as a storage protein that is found in all grains. That means in addition to wheat, barley and rye but also oats, corn, millet and rice. In fact there are over 200 types of grain in total. Stephen Gislason MD [1] explains in more detail "grains are the seeds of grass. Each seed has a bran casing – a starchy endosperm that provides food for the seed to grow. Flour made from this starchy endosperm contains Prolamines which are potentially toxic to the grain sensitive/intolerant person"

Whilst many people consider that Gluten is only found in bakery products, pastas and cereals, in reality gluten is used in a wide range of products

including toothpaste, beer, shampoo, pet foods and even in medications. Most worryingly, for gluten intolerant sufferers, it can be "hidden" in food additive's and preservative's that do not need to be declared and listed on the food product label. Some scientists [2] have drawn a link between Gluten Sensitive Disorders and dairy products where livestock are fed a grain-based food. This could be the reason or is it the digestive system has become so sensitive that diary is not tolerated too.

In the post war years all European economies were working hard to recover from the war effort and a critical area was the farming industries that were tasked to put healthy and plentiful food on the nations table. Wheat products became readily available and formed a staple part of our diet in the UK. During this period health problems due to eating gluten were unheard of. Fast forward to 2025, wheat and wheat products continue to form a significant part of the nation's daily diet with many people consuming wheat based products at breakfast, lunch and dinner and even snacks. To keep pace with this increased demand, food producers and manufacturers came under pressure to increase crop yields and shorten food production processes. However there is now growing evidence that these changes have impacted on the gluten in the wheat making it responsible for a sharp increase in reported Gluten Sensitive Disorders. Datis Kharrazian, in his book [3] refers to the "Hybridization and Deamidation of wheat over the years that has rendered the wheat inflammatory to humans."

**Hybridization:** is where a 'new' wheat type is created from two other wheat types for the purpose of increasing crop yield, at the same time making it more resistant to infestation. In some vulnerable individuals this 'new' wheat appears to trigger an immune reaction in the brain and nervous

**Deamidation**: is a process where the gluten is washed with acids or enzymes to make it mix more easily with other foods and is used widely in the food industry. Kharrazian goes on to say that "The hybridization and deamidation of wheat appears to play a role not only in the sharp increases of gluten sensitivity and coeliac disease, but also in inflammation, degeneration and even autoimmunity of the brain and nervous system."

Substantial increases in the global use of nitrogen fertilisers on our wheat crops to deliver greater crop yields have also been linked to an increase in health problems. Research [4] funded by a number of Governments including the Spanish and Czech governments and funded by the European Research Council Synergy grant have found that "wheat from these crops had higher gliadin concentrations in all types of wheat genotypes." As gliadins, a protein found in wheat, are directly responsible for triggering coeliac disease the report suggests "there could well be a link between a rise in coeliac disease reported in several human populations around the world with this intensification of Nitrogen fertilisation of wheat crops."

Process changes in food production are also seen as a possible contributor to the increase in Gluten Sensitivity Disorders. In the 1960's a new bread production process known as the Chorleywood Process was introduced in the UK that reduced the fermentation time of the drastically. Whilst the process was rightly credited with saving costs delivering manufacturers a greater product output, the process was also considered to have introduced a far inferior quality of product. The process enabled the use of lower protein British wheats in addition to the increasing use of various chemical improvers and antifungal agents. Links [5] have been raised between bread

made using this new process and Irritable Bowel Syndrome one of the symptoms experienced by gluten sensitive sufferers.

It is now estimated that as many as 1 in 10 of the UK population are sensitive to gluten with symptoms ranging from feeling bloated, lacking energy or brain fog. However, the neurological symptoms experienced by Gluten Ataxia sufferers can be life changing leaving some sufferers not diagnosed in time needing 24/7 care in the most serious cases.

Whilst some people might joke by saying "The best thing since sliced bread" for gluten sensitive sufferers this is surely questionable?

## References;

- [1] Dr Stephen Gislason- "Why Isn't My Brian Working?Published by Gordon Soules Book PublishersISBN 10-0969414536
- [2] Dr Peter Osbourne "What is Gluten?"Video Published on You Tube
- [3] Dr Datis Kharrazian "Why Isn't My Brian Working?Published by Elephant PressISBN 978-0-9856904-3-4
- [4] Could Global Intensification of Nitrogen Fertilisation Increase Immunogenic Proteins and Favour the Spread of Coeliac Pathology?

  www.mdpi.com/journal/foods

## [5] The Chorleywood Bread Process

www.anhinternational.org

Alliance for Natural Health International

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