

Coeliac disease on the rise in Europe

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Coeliac disease is a gut-damaging condition that can develop at any time throughout life. Following a gluten-free diet is currently the only effective treatment.

What is coeliac disease?

Coeliac disease is an autoimmune disorder in which the immune system reacts to gluten, a collective name for a type of protein in wheat, rye and barley. Some people also react to oats. The lining of the small intestine becomes damaged which causes malabsorption of nutrients, increasing the risk of nutrient deficiencies, anaemia and osteoporosis. Symptoms vary considerably, ranging from digestive complaints to poor growth, skin rashes or infertility.¹

Increasing prevalence but under-diagnosed

In Europe an estimated 1% of adults and children have the disease.² The prevalence varies widely; for ages 30–64 years, it is eight times higher in Finland (2.4%) than in Germany (0.3%), perhaps relating to both genetic and environmental factors. In Finland, the prevalence has doubled over 20 years which cannot be explained by better detection rates.³

Undetected or misdiagnosed coeliac disease is common and may result in ongoing health risks.⁴ Symptoms can be absent or non-specific, and are often mistaken for irritable bowel syndrome. This is perpetuated by a misconception that coeliac patients are underweight, whereas in fact many either have a normal weight or overweight.¹ Currently, testing is recommended for symptomatic individuals (including associated conditions such as osteoporosis or iron-deficiency anaemia) and those with increased risk of coeliac disease including people with existing autoimmune disease (e.g., type 1 diabetes, autoimmune hypothyroidism) or with first-degree relatives with coeliac disease.⁵ Before eliminating gluten from the diet, diagnosis uses blood testing and usually small-bowel biopsy.

The challenge of a lifelong gluten-free diet

A strict, lifelong gluten-free (GF) diet allows the small intestine to recover. Obvious sources of gluten are bread, many breakfast cereals, pasta, pizza, cakes and biscuits. Gluten may also be used to give structure to food products such as sausages, stock cubes, soups and sauces. Naturally GF foods include meat, fish, eggs, fruit, vegetables, dairy products, beans, potatoes, rice, maize, quinoa and buckwheat. Substitute foods such as specially-made GF bread, flour, pasta, and crackers, have increased in variety in recent years and are available on prescription in some countries.¹

Inadvertent gluten consumption may occur, for example by cross-contamination; GF foods should be prepared with separate utensils e.g. toaster.¹ People with coeliac disease vary in their sensitivity to trace

amounts of gluten.⁶

There has been confusion about whether oats can be included in a GF diet. During milling oats often come into contact with wheat, rye or barley. Pure uncontaminated oats, labelled 'gluten-free', are considered safe for most. However, a small proportion of people may (also) have an immune response to avenin, a protein similar to gluten that is found in oats. Those newly diagnosed with coeliac disease should avoid oats until the disease is well controlled by a GF diet, when GF oats can be gradually introduced whilst monitoring for adverse effects.⁷

Qualified dietitians can help ensure the diet is balanced and contains enough dietary fibre and micronutrients including calcium. Official coeliac societies across Europe also provide support.¹

Food labelling

If a gluten-containing ingredient is used in the production of a foodstuff, then the gluten source must be on the label. Labelling rules in force late 2014 will require gluten-containing cereals to be highlighted in the list of ingredients. This requirement will also extend to non-pre-packed foods sold loose, e.g. in restaurants. Foods labelled 'gluten-free' must not contain more than 20 mg of gluten per 1 kg. Specialist products containing between 20 and 100 mg of gluten per 1 kg can be labelled 'very low gluten'.⁶ Manufacturers must implement procedures to prevent cross-contamination. A Crossed Grain trademark symbol, recognised worldwide by people with coeliac disease, is available to manufacturers and retailers to help consumers choose safe products.¹

Prevention and new therapies

A recent study suggests the gradual introduction of gluten-containing foods into an infant's diet after four months but before seven months, whilst continuing breastfeeding, may help to protect against the development or delay the onset of the disease.⁸ New therapies being researched for easier GF living in the future, include genetically altering wheat to remove gluten and drugs or vaccines that could prevent gluten damaging the gut.

References

1. [Association of European Coeliac Societies.](#)
2. Mustalahti K, et al. (2010). The prevalence of celiac disease in Europe: results of a centralized, international mass screening project. *Annals of Medicine* 42:587–595.
3. Lohi S, et al. (2007). Increasing prevalence of coeliac disease over time. *Alimentary Pharmacology Therapeutics* 26(9):1217–1225.
4. Evans KE, et al. (2011). Is it time to screen for adult coeliac disease? *European Journal of Gastroenterology Hepatology* 23:833–838.
5. Husby S, et al. (2012). European Society for Pediatric Gastroenterology, Hepatology, and Nutrition guidelines for the diagnosis of coeliac disease. *Journal of Pediatric Gastroenterology and Nutrition*

54(1):136–160.

6. [Commission Regulation \(EC\) No 41/2009 concerning the composition and labelling of foodstuffs suitable for people intolerant to gluten.](#)
7. Ellis HJ & Ciclitira PJ (2008). Should coeliac sufferers be allowed their oats? *European Journal of Gastroenterology & Hepatology* 20:492–493.
8. Szajewska H, et al. (2012). Systematic review: early infant feeding and coeliac disease prevention. *Alimentary Pharmacology Therapeutics* 36(7):607–618.
9. Lerner A, et al. (2010). New therapeutic strategies for celiac disease. *Autoimmunity Reviews* 9:144–147.