

Gluten free diet

The small intestine of a person with coeliac disease is sensitive to gluten, which is a protein component of the grains wheat, rye, barley, triticale and oats. Even tiny amounts of gluten can cause harm. When the lining of the small intestine is damaged, nutrients are poorly absorbed. Untreated, this can result in a range of disorders including malnutrition, osteoporosis and infertility.

The cause of coeliac disease is unknown, but it is thought there are both genetic and environmental factors involved. There is no cure, but the disease can be managed by lifelong adherence to a strict gluten free diet. This allows the microscopic, finger-like projections of the small intestine (villi) to recover and assist in normal absorption of nutrients.

Don't self-diagnose

Since the symptoms of other conditions can closely mimic coeliac disease, correct diagnosis can only be made by showing that the bowel lining is damaged. This is done by endoscopy (through the mouth) with small bowel biopsy. During this procedure, the small intestine is examined with a slender instrument (endoscope). Small samples (biopsies) are removed for examination under a microscope. It is important for the integrity and accuracy of the biopsy that you don't put yourself on a gluten free diet prior to the procedure. Coeliac blood tests are used for initial screening and the accuracy of these is also dependent on normal gluten ingestion.

Symptoms

Some of the symptoms of coeliac disease, which may occur on their own or in combination, include:

- Anaemia
- Digestive upsets, such as flatulence and bloating
- Diarrhoea or constipation
- Nausea
- Vomiting
- Abdominal pains and cramps
- Weight loss or poor weight gain in children
- Fatigue and generalised malaise.

Gluten and gliadin

Gluten is a protein found in wheat, rye, barley, triticale and oats. The component of gluten that causes problems for people with coeliac disease is the prolamine fraction. The prolamine fraction in wheat is called gliadin; in rye, it is called secalin; in barley, it is hordein; and in oats, it is avenin.

Foods to avoid

A person with coeliac disease should avoid all foods that contain gluten. It is important to read the labels of all packaged or prepared foods. Some foods that may contain gluten include:

- **Meat products** – any products prepared with breadcrumbs or batter, sausages and other processed meats or smallgoods (unless labelled gluten free), thickened soups, meat pies and frozen meals.
- **Dairy products** – malted milk, some cheese spreads, icecream in a cone and some soymilks.
- **Fruits and vegetables** – canned and sauced vegetables, textured vegetable protein (found in some vegetarian products) and fruit-pie filling.
- **Cereal and baking products** – wheat, wheaten corn flour, semolina, couscous, wheat bran, barley, oats, porridge, breakfast cereals containing wheat, rye, oats or barley, corn or rice cereals containing malt extract, some icing sugar mixtures and baking powder.
- **Pasta and noodles** – spaghetti, pasta, lasagne, gnocchi, hokkein noodles, soba noodles and two-minute noodles.
- **Bread, cakes and biscuits** – all bread, cakes and biscuits prepared with flours from a gluten source.

- **Condiments** – malt vinegar, some mustards, relishes, pickles, salad dressings, sauces, gravy and yeast extracts.
- **Snacks** – liquorice, some lollies and chocolates, packet savoury snacks and some flavoured potato and corn chips.
- **Drinks** – cereal coffee substitutes, milk drink powders.
- **Alcoholic drinks** – beer, stout, ale, guinness and lager (most beers contain gluten; however, a range of gluten free boutique beers is now available in Australia).

Naturally gluten free foods

Despite the restrictions, a person with coeliac disease can still enjoy a wide and varied diet. Corn (maize), rice, soy, potato, buckwheat, millet, quinoa, lentils and amaranth are all gluten free. It is important to read the labels of all packaged or prepared foods. Some gluten free foods that people with coeliac disease can enjoy include:

- **Meat products** – unprocessed meat, fish, chicken, bacon, ham off the bone and meats that are frozen or canned but with no sauce.
- **Dairy products** – eggs, full cream milk, low fat milk, evaporated milk, condensed milk, fresh cream, processed or block cheese and some custards and soymilks.
- **Fruits and vegetables** – fresh, canned or frozen but not sauced; fruit juices, nuts and peanut butter.
- **Cereal and baking products** – corn (maize) flour, soya flour, lentil flour, rice (all types), rice flour, rice bran, potato flour, buckwheat, millet, amaranth, breakfast cereals made from corn and rice without malt extract, polenta and psyllium.
- **Bread, cakes and biscuits** – most rice crackers, corn cakes, rice crispbreads, corn tortillas and corn taco shells.
- **Pasta and noodles** – gluten free pasta, rice noodles, rice or bean vermicelli and 100 per cent buckwheat noodles.
- **Condiments** – tomato paste, tahini, jam, honey, maple syrup, cocoa, all kinds of vinegars (except malt), some sauces and some salad dressings.
- **Snacks** – plain chips and corn chips, popcorn and plain chocolate.
- **Drinks** – tea, coffee, mineral water, wine, spirits and liqueurs.

Food labelling caution

All packaged foods have ingredient labels printed on the box, package or bottle. There are two types of food suitable for those requiring a gluten free diet:

- Foods labelled 'gluten free'
- Foods made for the general market that are gluten free by ingredient.

The product ingredient label may not list 'gluten' as a component. However, under mandatory labelling standards, all ingredients and food additives derived from wheat, rye, barley or oats must be declared on food labels. Processing aids must also be declared if present in the final product.

Gluten free products

There is an Australian Food Standard for processed foods labelled 'gluten free'. When foods are tested using the prescribed test, there must have 'no detectable gluten'. Currently (June 2007) this test is sensitive to 0.005 per cent (five parts per million).

Where to get help

- Your doctor
- Gastroenterologist
- An accredited practising dietitian, contact the Dietitians Association of Australia
- The Coeliac Society in Victoria Tel. (03) 9808 5566 or 1300 458 836

Things to remember

- The small intestine of a person with coeliac disease is sensitive to gluten, which is a protein component of the grains wheat, rye, barley, triticale and oats.
- There is no cure, but the disease can be managed by lifelong adherence to a strict gluten free diet.
- Initially the gluten free diet may seem overwhelming; however, with the information and support available with membership in The Coeliac Society, it will become much easier.
- Despite the restrictions, a person with coeliac disease can still enjoy a wide and varied diet.

- Be guided by your dietitian experienced in coeliac disease.

This page has been produced in consultation with, and approved by:

Coeliac Society of Victoria

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