

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 small amounts of gluten can cause harm. When the lining of the small intestine is damaged, nutrients are poorly absorbed. If left untreated, this can result in a range of disorders including malnutrition, osteoporosis and infertility.

Coeliac disease is an autoimmune disease. Some people are born with a genetic predisposition to develop the disease, and environmental factors play an important role. There is no cure, but the disease can be managed by sticking to a strict lifelong gluten-free diet. This allows the microscopic, finger-like projections (villi) of the small intestine to recover and assist in normal absorption of nutrients.

Don't self-diagnose coeliac disease

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 examining the small intestine with a slender instrument (endoscope) inserted through the mouth and down past the stomach. 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 an endoscopy. Coeliac blood tests are used for initial screening and the accuracy of these is also dependent on your normal gluten intake.

Symptoms of coeliac disease

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 prolamin fraction. The prolamin 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 on a gluten-free diet

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:

- **Cereal and baking products** – wheat, wheaten cornflour, semolina, couscous, wheat bran, barley, oats, porridge, breakfast cereals containing wheat, rye, oats or barley, corn or rice cereals containing malt extract from barley, some icing sugar mixtures and some baking powders
- **Pasta and noodles** – spaghetti, pasta, lasagne, gnocchi, hokkien noodles, soba noodles and two-minute noodles
- **Bread, cakes and biscuits** – all bread, cakes and biscuits prepared with flours from a gluten source
- **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, ice cream in a cone and some soymilks
- **Fruits and vegetables** – textured vegetable protein (found in some vegetarian products) and fruit-pie filling
- **Condiments** – malt vinegar, some mustards, relishes, pickles, salad dressings, sauces, gravy and yeast extract from barley
- **Snacks** – liquorice, some lollies and chocolates, packet savoury snacks and some flavoured potato and corn chips
- **Drinks** – cereal coffee substitutes and some 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 from barley, 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 four methods of finding suitable gluten-free foods including:

- Foods that are naturally gluten free, such as fresh fruit and vegetables, and fresh unprocessed meats
- Foods carrying the Crossed Grain endorsement logo
- 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 they are 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 be 'no detectable gluten'. Currently, this test is sensitive to 0.003 per cent (three parts per million).

Where to get help

- Your doctor
- Gastroenterologist
- Dietitians Association of Australia Tel. 1800 812 942, (02) 6163 5200
- Coeliac Australia Tel. 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 a lifelong gluten-free diet.
- Initially the gluten-free diet may seem overwhelming, although with information and support from Coeliac Australia, it will become much easier.
- Despite the restrictions, a person with coeliac disease can still enjoy a wide and varied diet.
- Be guided by a dietitian who is experienced in coeliac disease.

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

Coeliac Australia

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