

## Gluten free diet

The small intestine of a person with coeliac disease is sensitive to gluten, which is the 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. A strict gluten free diet allows the microscopic, finger-like projections of the small intestine (villi) to recover and assist in normal absorption of nutrients. Consult with your accredited practising dietitian for a full explanation of the dietary requirements.

### Don't self-diagnose

Coeliac disease is diagnosed by endoscopy with small bowel biopsy. During a small bowel endoscopy the small intestine is examined with a slender instrument (endoscope). Small samples of the small intestine (biopsy) 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. The symptoms of coeliac disease are similar to those of other disorders, but may include:

- Anaemia
- Digestive upsets, such as flatulence and bloating
- Diarrhoea or constipation
- Nausea
- Vomiting
- Abdominal pains and cramps
- Weight loss
- 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 any 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, most sausages and other processed meats (including smallgoods), thickened soups, meat pies and frozen meals.
- **Dairy products** – malted milk, some flavoured milks, cheese spreads, icecream in a cone, many custards and many 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 or unspecified corn flour, semolina, couscous, wheat bran, barley, oats, porridge, breakfast cereals containing wheat, rye, oats or barley, corn or rice cereals containing malt extract, 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 that contain gluten. This also includes communion hosts.
- **Condiments** – malt vinegar, many 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, beer, stout, ale, guinness and lager.

See over ...

## Naturally gluten free foods

Despite the restrictions, a person with coeliac disease can still enjoy a wide and varied diet if they take an open-minded approach. 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** – plain 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 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, bean vermicelli and 100% 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, sports drinks, spirits and liqueurs (check these for gluten-containing ingredients first).

## Food labelling caution

Packaged foods have ingredient labels stamped on the box, package or bottle, but products are not always labelled if they are 'gluten free'. Also, the ingredient label may not list 'gluten' as a component, but it can be present within other ingredients such as thickeners, which could be wheat based. Effective from December 2002, new Australian food labelling laws will ensure that any ingredient (for example starches, thickeners, maltodextrin etc) derived from gluten-containing grains will need to have the source indicated. Also, processing aids derived from gluten-containing grains used to assist in the manufacture of foods will have to be declared.

## 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 (June 2001) this test is sensitive to 0.003% (3 parts per million).

## Where to get help

- Your doctor
- Gastroenterologist
- Accredited practising dietitian
- Coeliac Society of Victoria Tel. (03) 9808 5566
- Better Health Channel has produced a range of healthy gluten-free [recipes](#).

## Things to remember

- The small intestine of a person with coeliac disease is sensitive to gluten, which is the 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.
- Despite the restrictions, a person with coeliac disease can still enjoy a wide and varied diet if they are well informed and take an open-minded approach.
- Be guided by your dietitian experienced in coeliac disease.

This page has been produced in consultation with, and approved by, the Coeliac Society of Australia. The Better Health Channel is part of the Department of Human Services, Victoria

### Updates

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