## What is coeliac disease?

Coeliac disease is a condition in which the lining of the small intestine becomes damaged when it is exposed to even small amounts of gluten - a protein found in wheat, barley, rye and oats. As a result, affected patients absorb food and nutrients poorly. This can result in bowel symptoms and deficiencies of vitamins, minerals and other nutrients. Coeliac disease is successfully treated by removing all foods containing gluten from the diet. This is called a gluten-free diet. Following a gluten-free diet after the diagnosis of coeliac disease should allow an improvement in symptoms and restoration of health.


Biopsy of normal intestine


Biopsy of coeliac intestine

## How common is coeliac disease?

It is relatively common. In Australia it is estimated to affect about one in 100 people.

## What are the symptoms?

Coeliac disease can vary in its symptoms, ranging from many to none at all. There are no specific symptoms of the disease. Diarrhoea, loss of weight, nausea, flatulence and abdominal discomfort are common complaints. Tiredness and weakness are also common, usually because of a degree of iron and/or folic acid deficiency, sometimes resulting in anaemia. Some patients may also be diagnosed following investigation for osteoporosis. Less commonly, mouth ulceration, recurring miscarriages or infertility can be the presenting feature in adults.

In children, coeliac disease often causes poor weight gain, delayed growth and development, irritability and a poor appetite in addition to bowel problems and anaemia.

Of course many of the above-mentioned complaints are very common in the community and are usually not due to coeliac disease. Nonetheless, it is widely accepted now that this condition is under-diagnosed and should be considered in a broader range of patients than has been the practice in the past.

Does it run in the family?
Yes, it certainly can. About one in ten close family relatives of an affected patient may also have coeliac disease.

## What should I do if I think I have coeliac disease?

You should first approach your general practitioner A medical history and an examination will be performed and, if thought necessary, further tests will be undertaken to help diagnose the condition. You may be referred to a specialist.

If coeliac disease is suspected, a gluten-free diet should never be started until the condition has been properly diagnosed. Otherwise, this will interfere with establishing the correct diagnosis. The gluten-free diet should always be undertaken with medical supervision.

## What should I do if someone in my family has coeliac disease?

Again, your local doctor should be your first contact. There are blood tests available that are useful to screen for coeliac disease. You may like to take this leaflet with you indicating where you have read about the condition.

## How is coeliac disease diagnosed?

Your doctor's assessment and, if appropriate, some blood tests will determine whether coeliac disease is likely. However, the diagnosis can only be properly made by a pathology examination of a biopsy taken from the intestine. Nowadays, this is quite a simple, safe and painless procedure that does not require an overnight stay in hospital.

## What is the treatment if I have coeliac disease?

Coeliac disease is treated by a strict gluten-free diet. Medication is rarely necessary. The diet needs to be continued for life, because the sensitivity to gluten does not disappear.

Basic information regarding the diet can be obtained from your doctor. A visit to a dietitian is highly recommended for a comprehensive explanation and planning of the gluten-free diet. The Dietitian's Association of Australia can provide you with contact details of specialist dietitians via the website www.daa.asn.au, or call 1800812 942. In addition, the state branches of the Coeliac Society of Australia are an invaluable resource. They have access to excellent information, including the availability of special glutenfree foods and recipes for people with coeliac disease and their families. It is worthwhile to inform your friends, family and colleagues that you have coeliac disease and explain how it is managed. It is also important to let your pharmacist know you have coeliac disease as some medications (prescribed and over the counter) can contain gluten.

You will need ongoing monitoring of your health through your local doctor, gastroenterologist and/or dietitian.

It is usual practice to repeat the biopsy after 12 months' diagnosis, and the following tests are also recommended:

- Full blood count
- Iron, vitamin B12, folic acid test
- Thyroid function test
- Calcium, phosphate, vitamin D, zinc, PTH test
- Liver function test.

A bone mineral density test (DEXA scan) should also be performed at the time of diagnosis and thereafter as indicated by your doctor.

Long-term problems associated with failure to adhere to a strict gluten-free diet include increased risk of bowel lymphoma (a type of cancer), osteoporosis, infertility and chronic ill health. The risk of these is no greater than normal when a gluten-free diet is followed.

## The gluten-free diet

The following list is intended as a general guide only. If you have coeliac disease you are encouraged to consult with a dietitian with experience in coeliac disease for individual dietary planning and information about reading food labels.

Gluten-free breads, biscuits, pastas, cereals and other foods are available from supermarkets and health food stores.

Note: * indicates that some brands contain gluten while others are gluten-free. Please check the package label.

|  | Foods to Avoid | Foods to Include |
| :---: | :---: | :---: |
| Flour. | Wheat, rye, barley, triticale and oat flour; and flour made from wheat varieties including spelt, dinkle and kamut. Wheaten cornflour. | Rice, potato, lentil and soy flour; pure maize cornflour, cornmeal/ polenta, arrowroot, buckwheat, sorghum, millet, sago, tapioca, baby rice cereal, amaranth, lupin, and quinoa. |
| Bread \& baked goods | All wheat, rye and sourdough bread; biscuits, pastries, buns, muffins, pikelets, crumpets, croissants and breadcrumbs (unless labelled gluten-free). | Rice cakes, corn cakes and some rice crackers*; gluten free bread; biscuits, pastries, rolls, breadcrumbs, cakes and desserts made from allowed flours; gluten-free bread, biscuit and cake mixes. |


|  | Foods to Avoid | Foods to Include |
| :---: | :---: | :---: |
| Cereals | Breakfast cereals containing wheat, oats, semolina, barley, rye, malt extract, wheat bran, and oat bran. | Rice, corn and soy breakfast cereals*, gluten-free muesli, home-made muesli using allowed ingredients. |
| Pasta and grains | Wheaten noodles, pasta, spaghetti, vermicelli \& instant pasta meals; triticale, couscous, bulgur and semolina. | Rice, corn, cornmeal, tapioca, buckwheat, polenta, quinoa and millet; buckwheat and gluten-free pastas; rice noodles and rice vermicelli. |
| Fruit | Commercial thickened fruit pie filling*. | Fruit juices and fresh, frozen, canned or dried fruit. |
| Vegetables | Canned or frozen vegetables in sauce, commercially prepared vegetable and potato salad*. | Fresh, frozen, dehydrated, or canned vegetables without sauces; vegetable juices. |
| Meat, fish \& poultry | Sausages, most processed meats and fish, corned beef, meat pies, frozen dinners; foods prepared or thickened with flour, batter or crumbs.. | Canned meat or fish without sauce or cereal, ham off the bone*, bacon, gluten-free sausages; fresh, smoked, cured or frozen products without sauces, crumbs or batters. |
| Dairy products | Cheese mixtures, pastes and spreads*, malted milks, ice cream with cone or crumbs, soy drinks containing malt*. | Block, processed, cream, cottage or ricotta cheese; fresh, UHT, evaporated, powdered or condensed milk; yoghurt*, buttermilk, fresh or canned cream, plain or flavoured icecream*. |
| Legumes, nuts \& seeds | Coated and seasoned nuts*, textured vegetable protein products. | Dried or fresh beans, nuts and seeds, gluten-free canned baked beans, canned beans or legumes*. |


|  | Foods to Avoid | Foods to Include |
| :---: | :---: | :---: |
| Takeaway food | Hamburgers, pizza, souvlaki, sausages, battered food (e.g. fried fish), crumbed food (e.g. crumbed chicken), stuffed roast chickens, pies and sausage rolls. | Steamed rice, grilled fish (check no flour), chicken (no stuffing), steak, Asian dishes without flour or soy sauce, steamed vegetables, baked potato, some chips*, most sushi (check fillings). |
| Snacks | Packet savoury snacks, and filled chocolates, licorice, many frozen desserts, flavoured potato crisps and corn chips*. | Fruit juices and fresh, frozen, canned or dried fruit. |
| Beverages | Cereal based coffee substitutes, malted cocoa beverages (e.g. Milo ${ }^{\circledR}$, Ovaltine ${ }^{\circledR}$, Aktavite ${ }^{\ominus}$ ), barley waters, milk flavourings*, beer, ale, stout and lager, alcoholic soft drinks containing malt extract. | Water, tea, coffee, cocoa, milk, cordials, soft drinks, soda water, mineral water, fruit and vegetable juices, wine (including sparkling and fortified wines), most spirits and liqueurs, cider, gluten free beer. |
| Misc. | Malt vinegar, soy sauce containing wheat, mixed seasonings, yeast extract spreads (e.g. Vegemite ${ }^{\circledR}$, Marmite ${ }^{\text {® }}$, Promite ${ }^{\text {® }}$ ), sauces, pickles, relish, chutney, thickened salad dressings, stock cubes, custard powder containing wheat starch, chicken salt*, baking powder*. | Tomato sauce, gluten-free soy sauce, most vinegars*, sugar, honey, golden syrup, jam, peanut butter, salad dressings *, gluten-free stock cubes, gelatine, gluten-free baking powder and custard powder, herbs, spices, salt, pepper. |

## Coeliac Societies

## Coeliac Australia

www.coeliac.org.au
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## NSW/ACT

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## Digestive Health Foundation

The Digestive Health Foundation (DHF) is committed to promoting better health for all Australians through education and community health programs related to the digestive system.

The DHF is the educational arm of the Gastroenterological Society of Australia (GESA). GESA is the professional body representing the specialty of gastrointestinal Gl and liver disease. Members of the Society are drawn from physicians, surgeons, scientists and other medical specialties with an interest in gastrointestinal disorders. GI disorders are the most common health related problems affecting the community.

Research and education into gastrointestinal disease are essential to contain the effects of these disorders on all Australians.

Further information on a wide variety of gastrointestinal conditions is available on our website - www.gesa.org.au

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