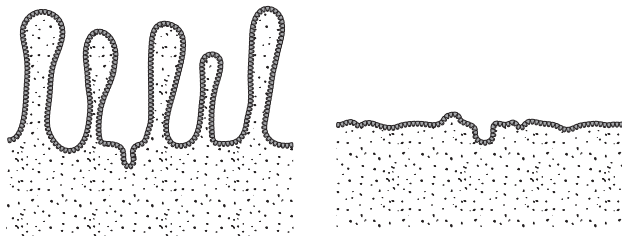


Coeliac disease in children

What is coeliac disease?

It is a hereditary disorder of the small intestine caused by a sensitivity to gluten in food. Normally the lining of the small intestine has a fluffy velvety texture but with coeliac disease it becomes smooth and flat. This reduces its ability to absorb nutrients including sugars, proteins, vital minerals and vitamins from food. The intestine simply cannot tolerate gluten in food because the gluten damages its lining. The exact reason is unknown. The condition is also called *gluten enteropathy* and *non-tropical sprue*.



Appearance of lining of normal intestine

Appearance in coeliac disease

What is gluten?

Gluten is a type of protein present in most grains, especially in wheat and rye and also in barley and oats. It is present in most of our breakfast cereals.

Who gets the disorder?

Coeliac disease is a relatively common condition that seems to affect mainly people of European descent, especially those of Celtic origin. Children usually develop it between 9 and 18 months of age following the introduction of solids into the diet. However, the onset of the disorder can be delayed and it can occur at any age. The symptoms can come on slowly, perhaps over years, making early diagnosis difficult. It affects 1 in 100 people.

What are the symptoms?

In some children there are no symptoms and when present they vary from one person to another. The problem can be dormant for years.

Symptoms commence within a few weeks of cereals being started in the baby's diet. These include:

- failure to gain weight (or even loss of weight)
- abdominal pain
- poor appetite
- diarrhoea
- constipation (in some)
- loose, pale, bulky, bad-smelling faeces
- passing a lot of wind
- swollen, 'bloated' abdomen

- mouth ulcers
- nausea and vomiting
- retarded growth
- lethargy
- irritability.

What are the risks?

Generally it is not a serious disorder when diagnosed early but otherwise can have serious consequences. Children can have stunted growth (which can be permanent) if not treated and have an increased risk of infection. Both adults and children can get anaemia due to the poor absorption of nutrients, especially vitamins.

How is it diagnosed?

Special blood tests can give a strong clue to the diagnosis. However, the key test is a biopsy of the lining of the small intestine, which is done under general anaesthetic using a flexible endoscope. This shows the flat lining of the intestine which is essential for diagnosis.

What is the treatment?

There is no cure for coeliac disease but it can be controlled. The treatment is by a special diet which is needed for the person's lifetime. It excludes gluten—no wheat, barley, rye and oats. This allows the bowel lining to recover. In children the response can be dramatic. Avoid foods that are obvious (e.g. bread, flour and oatmeal) and those that are more subtle (e.g. dessert mixes, ice-creams, many processed foods and confectionery). Otherwise, have a diet high in complex carbohydrate and protein and low in fat. It is important to get the advice of a dietician. A low-lactose diet may be advised for a short period.

Forbidden foods

- Standard bread, pasta, crispbreads, flour
- Standard biscuits and cakes
- Breakfast cereals made with wheat or oats
- 'Battered' or bread-crumbed fish, chicken, etc.

A gluten-free diet is not necessarily dull. Supermarkets now sell many tasty products including special bread and biscuits made from gluten-free flour. These are labelled 'gluten free'. Breakfast cereals containing rice and maize (corn) can be eaten. With this special diet there is a gradual improvement in abdominal swelling and muscle bulk.

Any iron and vitamin deficiency should be corrected with tablets—ask your doctor.

Other considerations

There is no restriction to general activities. It is useful to contact a coeliac disease support organisation such as the Coeliac Society in your state.