



Beer, gluten and coeliac disease

What is coeliac disease?

Coeliac disease is a life-long dietary intolerance to gluten resulting in damage to the lining of the small bowel such that food is not absorbed properly. Even small amounts of gluten in foods may affect those with coeliac disease and result in health problems. Damage can occur to the small bowel even in the absence of symptoms.

What is gluten?

Gluten is a generic name for certain types of proteins contained in the cereal grains wheat, rye, triticale, barley and oats and derivatives from these.

Is there gluten in beer?

Traditional beers are produced using a variety of barley malt, i.e. dried, germinated barley. This does not apply to the very limited range of 'beers' produced to be free of 'gluten' and which are marked to that or similar effect. In the brewing process, the malt starch is solubilised in hot water as fermentable sugars. Only part of the malt protein is solubilised, and in the subsequent boiling of the extract, much is degraded. Later steps in the brewing process also reduce the amount of malt protein found in beer. However, some protein is essential for beer quality particularly for beer presentation, since the beer foam would be extremely poor without the protein.

In addition some beers are produced using a proportion of sugar syrups made from wheat starch; i.e. wheat flour from which most of the gluten has been removed, the processing of this starch to produce the syrups used in brewing may result in a small contribution of gluten to beer. Some beers also contain small amounts of caramel colour, which may be produced from wheat starch.

When traditional beers are tested by the most frequently used method, only very low levels of gluten are detected. However, there is currently some concern over the reliability of the method used to test foods containing malt and it may not detect all the gluten-like material contributed to beer by malt. Newer methodology shows the presence of some protein fragments which may be of concern but the amounts are hard to determine.

Wheat beers are distinct products representing only a small proportion of the beer market, and are generally labelled as such. Wheat malt is a significant ingredient, and some wheat gluten might be expected to be extracted during the mixing of the milled grain with hot water. Using current testing methods, these beers show the presence of low levels of gluten.

Are people with coeliac disease able to drink traditional beer?

- People with coeliac disease are recommended to observe a life-long gluten-free diet.
- Australian and New Zealand beers are not gluten-free.
- Expert advice from coeliac support groups, such as the Coeliac Society of Australia, and gastroenterology institutes generally recommend that beer should be avoided.
- Some people with coeliac disease may drink beer in moderation with no noticeable immediate ill effects, but it is nonetheless likely that long term damage to the small bowel may occur. There is no long-term correlation between symptoms and bowel damage. To consume beer is therefore a personal choice after consideration of the risks and available professional health advice.

This information is provided by the Brewers Association of Australia and New Zealand, which is the national Industry association for the Australian and New Zealand brewing industries. The members of the Brewers Association of Australia and New Zealand are:

- Coopers Brewery
- DB Breweries
- Carlton & United Breweries
- Lion

An information sheet on food safety and nutrition issues by the Brewers Association of Australia and New Zealand. Alternatively, the member companies may be contacted direct through the appropriate local telephone directory.

This information sheet is not intended to be a comprehensive study of the subject material nor to provide professional advice and should not be treated as a substitute for specific medical or dietary advice concerning individual situations. For such advice please consult your general practitioner, The Australian Gastroenterology Institute, the Coeliac Society of Australia, Allergy New Zealand or Coeliac New Zealand.