



# Celiac Disease

## What is celiac disease?

Celiac disease is an inherited autoimmune disease. It is a result of damage to the surface of the small intestine caused by the protein gluten. This prevents the small intestine from absorbing nutrients resulting in chronic diarrhea, bloating, cramps and subsequently, anaemia and weight loss. It is estimated that 1 in 133 Canadians have celiac disease.

## What products contain gluten?

Specific proteins found in wheat, rye, triticale, and barley when mixed with moisture form gluten. Wheat contains two proteins—glutenin and gliadin—which are the best at forming gluten. Gluten makes the flour from the grain become strong and elastic. When heated, the gluten traps air bubbles making the dough rise and become springy. The high level of gluten in wheat results in the best quality bread. Any product made from wheat, rye, triticale, barley or the ancient wheat based grains (e.g., spelt, emmer, etc.) contains gluten.

## What baked products can be eaten by those with celiac disease?

A number of bakeries, health food stores and specialty shops will offer gluten-free baked goods. These breads, buns, muffins, cakes and crackers are made using flours or a combination of flours that are gluten-free. Baked goods, such as bread, made without gluten have a different look, taste and aroma compared to those made with wheat. The taste and aroma differ depending on which flour is the main ingredient in the bread or baked good. Gluten-free breads also have less volume than those made with wheat.

## What about oats?

Pure, uncontaminated oats are free of any contamination from grains containing gluten. These are now available in Canada and can be eaten safely by most individuals with celiac disease. Check with your local bakery to see if they use pure oats in their baked goods.

## What about other foods?

Individuals with celiac disease can eat a wide variety of foods from all four food groups in Canada's Food Guide. However, many foods in the grocery store have wheat flour or wheat starch added as a thickener or stabilizer such as soups, sauces and processed meat and fish. Check the ingredient list to be sure. A full list of ingredients to avoid can be found at the Canadian Celiac Association website <http://www.celiac.ca>.

### Gluten-free Flours

-  Amaranth
-  Arrowroot
-  Bean (garbanzo or chickpea)
-  Chestnut
-  Corn/cornmeal
-  Millet
-  Potato
-  Quinoa
-  Rice
-  Sorghum
-  Soy
-  Tapioca
-  Teff

**For more information contact: Baking Association of Canada**

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