

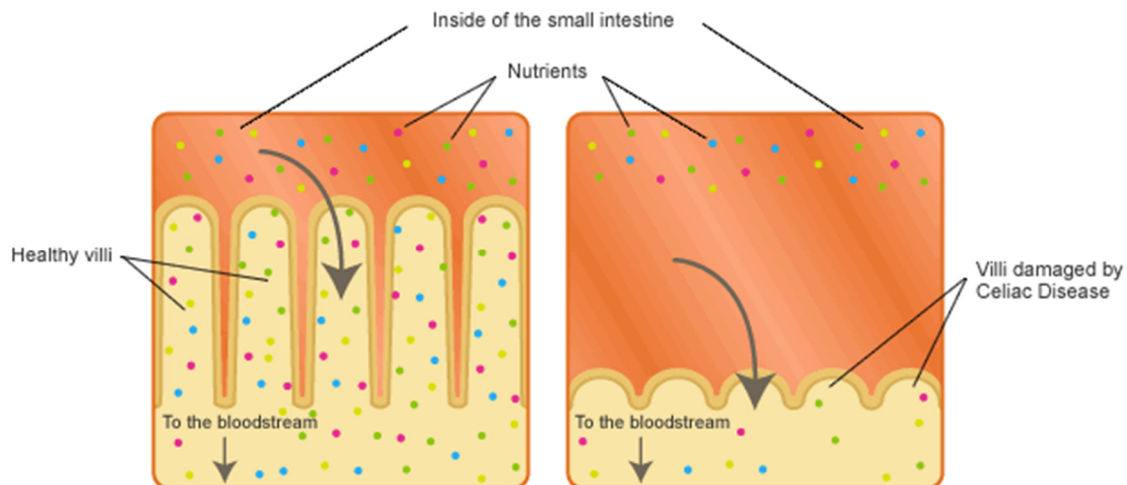
# 9077 - Living with Celiac Disease

## Celiac Disease Defined

An autoimmune disorder where ingestion of gluten attacks the small intestine in genetically predisposed people.

### Let's Break it Down

- Gluten is a protein found in wheat, rye, barley
- When people with celiac disease eat gluten, the body has an immune response that attacks the small intestine
  - These attacks damage the villi (see picture) that line the small intestine that promote nutrient absorption
  - Thus, nutrients cannot be absorbed properly
- Hereditary disease (i.e., runs in families). **People with a first-degree relative with celiac disease (parent, child, sibling) have a 1 in 10 risk of developing celiac disease.**



## Treatment

- Lifelong adherence to a strict gluten-free diet
- Must avoid foods like wheat, rye, barley, bread, beer.
- Try to eat foods higher in iron, calcium, vitamin D, zinc, B6, B12, folate (usually deficient in these vitamins and minerals).

## Living with Celiac Disease

- Always read food labels
  - Products label wheat-free are not necessarily gluten free
  - **Sources of gluten:** wheat (wheatberries, durum, emmer, semolina, spelt, farina, farro, graham, kamut, einkorn wheat), rye, barley, tritcale, malt, brewer's yeast, wheat starch
- Adjust diet: Example 7 day meal plan (see attachment)

## What Can I Eat?!

Naturally gluten-free food groups include:

- Fruits
- Vegetables
- Meat and poultry
- Fish and seafood
- Dairy
- Beans, legumes, nuts

Things I CAN Eat (Grains without gluten)	Things I CANNOT Eat (Foods with gluten)
<ul style="list-style-type: none"><li>➤ <i>Rice</i></li><li>➤ <i>Cassava</i></li><li>➤ <i>Corn (maize)</i></li><li>➤ <i>Soy</i></li><li>➤ <i>Potato</i></li><li>➤ <i>Tapioca</i></li><li>➤ <i>Beans</i></li><li>➤ <i>Sorghum</i></li><li>➤ <i>Quinoa</i></li><li>➤ <i>Millet</i></li><li>➤ <i>Buckwheat groats</i></li><li>➤ <i>Arrowroot</i></li><li>➤ <i>Flax</i></li><li>➤ <i>Chia</i></li><li>➤ <i>Gluten-free oats</i></li><li>➤ <i>Nut flours</i></li></ul>	<ul style="list-style-type: none"><li>➤ Pasta</li><li>➤ Noodles</li><li>➤ Breads and pastries</li><li>➤ Crackers</li><li>➤ Baked goods</li><li>➤ Cereal and granola</li><li>➤ Breakfast food</li><li>➤ Croutons</li><li>➤ Breading</li><li>➤ Sauces and gravy</li><li>➤ Flour tortillas</li><li>➤ Beer</li><li>➤ Brewer's yeast</li></ul>

Resource for gluten-free recipes: <http://celiac.org/live-gluten-free/gluten-free-recipes/>

Source: <http://celiac.org/>