Celiac disease: causes, symptoms and treatments



Define:

Celiac disease is commonly mistaken as a severe food allergy; this is not the case. Celiac disease is an acute auto-immune disorder where, when a person ingests gluten it leads to the injury of the small intestine. Gluten is found in rye, barley and wheat. When someone withceliac diseaseingests something with gluten in it, their body overreacts to the gluten and damages their villi. Villi are a very small finger-like feathers found along the wall of the small intestine. When the villi are damaged, the small intestine can't properly absorb nutrients from food. Villi allow nutrients from food to be absorbed through the walls of the small intestine into the bloodstream. Without healthy villi, a person becomes malnourished, it doesn't matter how much food a person eats, they'll never get enough nutrients.

Complications

Ultimately, this leads to loss in proper nutrition, miscarriages, infertility, cancers and many other serious medical conditions may occur.

- Malnutrition -The injury to the small intestine means the villi can't
 absorb enough nutrients to maintain a healthy body. Lack of nutrition
 can lead to weight loss and anemia. In kids, lack of nutrition can cause
 slowed growth and short height.
- Osteoporosis-Lack ofabsorption of vitamin D and calcium may lead to a softening of the bone in kids and osteoporosis in adults.
- Miscarriage & Infertility –Lack of absorption of calcium and vitamin D
 can help contribute to reproductive problems.
- Lactose intolerance –Injury to your small intestine may cause you to experience abdominal pain and diarrhea after eating dairy products.

- Cancer –Individuals with celiac disease who don't sustain a gluten-free intake have a larger risk of developing numerous forms of cancer, including small bowel cancer and intestinal lymphoma.
- Neurological problems -People with celiac disease can develop neurological disorders such as seizures or peripheral neuropathy.

Symptoms:

Celiac disease can be hard to diagnose due to some of the symptoms are very similar to other diseases like lactose intolerance and irritable bowel syndrome.

- chronic diarrhea
- gas
- bloating, or a feeling of fullness or swelling in the abdomen
- constipation
- nausea
- stomach pain
- pale, foul-smelling, or fatty stools that float
- vomiting
- delayed puberty
- failure to thrive in infants
- damage to the permanent teeth's enamel
- mood changes or feeling annoyed or impatient
- weight loss
- slowed growth and short height

Causes:

The cause for celiac disease is not know as of yet. Studies have shown that celiac disease can be triggered (mayoclinic. org) or be activated after a pregnancy or having surgery or overcoming severe emotional distress. But it's still not clear why.

Celiac disease can affect anyone anywhere, but there is a pattern. You are more likely to contract it if you have the following (mayoclinic. org):

- A family member with the celiac disease
- Down syndrome or turner syndrome
- Autoimmune thyroid disease
- Microscopic colitis
- Type 1 diabetes
- Addison's disease
- Down syndrome or turner syndrome
- Rheumatoid arthritis

According to the University of Chicago Medicine the prevalence of celiac disease in the United States is as follows:

- In average healthy people: 1 in 133
- In people with related symptoms: 1 in 56
- In people with first-degree relatives (parent, child, sibling) who are celiac: 1 in 22
- In people with second-degree relatives (aunt, uncle, cousin) who are celiac: 1 in 39

Age at Chance of

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developin

g diagnos autoimmu is ne condition

4-12

yrs of 16. 7%

age

12-20

yrs of 27%

age

Over
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Celiac disease is estimated to range between 0. 6 and 1 percent of the world's population (nytimes. com).

Treatment:

20 yrs 34%

of age

Celiac disease cannot be cured and currently there are no drugs that treat celiac disease. However, it can be managed. For most people a gluten free diet is the most effective way to prevent flare ups with their small intestine. Eating any amount of gluten, no matter now tiny it may be will can cause damage to the villi of the small intestine and stop a person from gaining the nutrition that they need. Antibody levels take a long time to normalize after

a person has stopped consuming gluten and eating just a tiny bit can pitch their entire system out of equilibrium. Eating a gluten free diet isn't as horrible as it may seem. Despite having some harsh dietary restrictions, people with celiac disease can still eat gluten free breads, pastas as well as potato, rice, soy and bean flour!

Citations

http://www. nytimes. com/2013/02/24/opinion/sunday/what-really-causes-celiac-disease. html

http://www. mayoclinic. org/diseases-conditions/celiac-disease/home/ovc-20214625

https://www. cureceliacdisease.

org/wp-content/uploads/341_CDCFactSheets8_FactsFigures. pdf