

Celiac coined by dr.  
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Celiac Disease is becoming more and more prevalent and visible in today's society, especially with the rising fad of the gluten free diet. For people with Celiac however, this diet is not just a fad, but the only treatment to their possibly life threatening disease. According to the National Institute of Diabetes and Digestive and Kidney Diseases, one in 141 Americans have the disease, although many don't know. ("Definitions and Facts for Celiac Disease," 2016) However, even with the growing visibility, people don't know what this disease is. Celiac Disease is an autoimmune disorder that affects the small intestine (Dr.

C. Smith, personal communication, November 2013). The term celiac was first coined in about first century AD by a Greek physician named Aretaeus of Cappadocia.

He called it "Coeliac Affection" or "koliakos" after the Greek word "koelia" meaning abdomen. The term "Celiac" was officially coined by Dr. Samuel Gee. (S. Guandalini, 2007) As the centuries went on, more research would be done on this mysterious affliction, eventually the only solution would be found in different diets. In the early 19th century, Dr.

Mathew Baillie would write, "Some patients have appeared to derive considerable advantage from living almost entirely upon rice." Other doctors found considerable success in "the banana diet" or having their patients eat almost nothing but mussels. Finally, in the current day, Celiac is now known to be treatable only by a completely gluten free diet. Predisposition to Celiac Disease is because of genetics. In 90% of the population with Celiac Disease, the HLA-DQ2 haplotype is displayed and in the general population without

Celiac, only about a third of the people display HLA-DQ2. There may also be an environmental factor, but it is becoming more and more common with the westernization of the world.

(A. Fasano, C. Catassi, 2015) It is triggered by presence of gluten in the diet and how wheat is produced and prepared. There are many symptoms of Celiac Disease that range from abdominal pain to slowed growth. All symptoms depend on age and all effects depend on when a person is diagnosed and how they stick to their treatment.

According to the National Institute of Diabetes and Digestion and Kidneys (NIDDK), the symptoms in children include irritable behavior, delayed puberty, slowed growth, and weight loss. In adults symptoms can include depression, anxiety, anemia, seizures, infertility, weakened bones, and dermatitis herpetiformis, a skin manifestation of Celiac that includes extreme itching. Along with these symptoms both adults and children can exhibit digestive symptoms which include a swollen abdomen, diarrhea, constipation, nausea, stomach pain, and vomiting. These symptoms are much less likely to appear in adults. ("Symptoms and Causes of Celiac Disease," 2016) Celiac Disease is damaging to the small intestine when gluten, a protein complex found in various grains including rye and barley, is ingested. The body responds to gluten peptides with the self-antigen transglutaminase, as well as several others, and damages the small intestine's microvilli, therefore harming the intestine's ability to absorb nutrients into the bloodstream. (A.

Fasano, C. Catassi, 2015) According to the NIDDK, there is only one known and effective treatment for Celiac Disease: a gluten free diet. This would include nothing that includes any form of rye, barley, and wheat.

Going on a completely gluten free diet, that includes no cross contamination of substances, tends to heal the damaged microvilli in the small intestine. If it does not heal quickly (3-6 months in children, several years in adults) another issue may be present: refractory celiac disease. This is where the small intestine does not heal and nutrients have to be given through an IV.

Currently there is research being done on the prevention of Celiac by introducing gluten earlier in the diet in children genetically predisposed to the gene, while they were still being breastfed. This would mean between 16-24 weeks of age. 479 of the 944 children received immunologically active gluten, while 469 received placebo. 5.2% of the patients were then diagnosed with Celiac by three years of age. The conclusions they reached were that there is no effect on Celiac disease if gluten is introduced earlier in the diet. (Sabine L.

Vriezinga, et al., 2014) In the end, Celiac affects more people than it would seem. The genetic predisposition of this disease makes it easy to predict and only sometimes is a biopsy necessary. Symptoms can be very severe, but manageable and the treatment is easy, even if there is only one. Research is always being done, but currently there is no preventative treatment.

Finally, Celiac Disease is a highly manageable autoimmune disorder.