

CELIAC DISEASE

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Celiac Disease

An inflammatory disease of the small
bowel initiated by gluten.
Leading to malabsorption of nutrients
and effect all systems of the body

Celiac disease

- Autoimmune disease; intolerance to gluten
- Gluten sensitive
- Wheat allergy

- 1 in 100 is the estimated prevalence of celiac disease.
- Takes an average 11yr to get diagnosis
- 35% exhibit chronic diarrhea
- 2-3x more common in women
- 97% of people with celiac have not been diagnosed

Pathophysiology

Villi are similar to shag carpet. Damage from gluten causes breakdown of villi.

When villi atrophy, the shag carpet is more similar to a tile floor.

“LEAKY GUT”

This results in the inability to absorb certain nutrients(iron,calcium,vit.- D,A,E,K,protein and folic acid).

SYMPTOMS

- GI symptoms
 - Chronic diarrhea/constipation
 - Abd pain/distention
 - Poor appetite/intake
 - Vomiting
- Non GI symptoms
 - Dermatitis herpetiformis
 - Dental enamel hypoplasia
 - Osteopenia/osteoporosis
 - Iron deficient anemia
 - Delayed puberty
 - Infertility
 - Fatigue/irritability and failure to thrive

Complications

- Lymphoma
- Intestinal carcinoma
- Osteoporosis
- Refractory Celiac disease

Immune Disorders

- Dermatitis herpetiformis
- T1DM
- Liver/Thyroid disease
- Lupus
- Addison's disease
- Down's/Sjogren's syndromes
- Rheumatoid Arthritis

Treatment

- Lifelong diet that is gluten free
- Total elimination of wheat, rye, and barley

Gluten???

- Gluten is an elastic protein found in certain grains.
- Proteins that cause problems for celiac disease 1. Gliadin/wheat 2. Secalin/rye 3. Hordein/barley.

Common Sources of Gluten

- Pasta
- Cereal
- Bread, pizza crust, salad croutons
- Crackers, pretzels
- Cookies, cakes, pies, pastries
- Beer
- Cross contaminated oats/other food products

Foods that MAY contain Gluten

- Candy
- Soy sauce
- Lunch/processed meats
- Rice mixes
- Seasoned chips
- Canned soups/sauces
- Imitation fish
- Communion wafers
- Matzo/matzo meal

Potential Sources

- Chewing gum
- Lipstich/balm
- Personal care products; shampoo, lotions
- Medications; prescription, OTC, herbal and vitamins and minerals

Flours containing gluten

- Bulgur
- Couscous
- Kamut
- Semolina
- Spelt
- Graham flour
- Triticale
- Wheat germ

Gluten-free flours

- Rice flours
- Almond flour
- Amaranth
- Arrowroot
- Buckwheat
- Corn flour-corn starch
- Cornmeal
- Gram flour(chick peas)
- Potato starch flour
- Quinoa
- Soy (soya flour)
- Tapioca starch
- Teff grain
- Potato flour
- Sorghum flour

Gluten-Free Foods

- Fruits
- Vegetables
- Milk, cream, most ice creams, cheese, cottage cheese, cream cheese
- Potatoes, corn, rice, lentils, beans
- Butter, margarine, oil, salad dressing (allowed ingredients)
- Fresh meat, fish, poultry, eggs
- Plain nuts, seeds, popcorn

MORE Gluten-free

- Tea, coffee, soda
- Distilled alcoholic beverages
- Plain pickles, olives, relish, ketchup, tomato paste, mustard (with distilled vinegar, herbs/spices, black pepper
- Honey, jam, jelly, corn/maple syrup, sugar

Labels

- Food Allergen Labeling and Consumer Protection Act (FALCPA)
- Food labels identify eight main food allergens (milk, eggs, peanuts, tree nuts, fish, crustacean shellfish, soy and wheat
- Gluten-free are wheat free, but wheat free are not always gluten free

Compliance barriers

- Cost
- Availability
- Taste/quality
- Patients lack of symptoms
- Difficulty with labeling of food/drugs
- Poor education from healthcare providers

Resources

- www.celiac.com
- www.celiacsprue.com
- www.niddk.nih.gov/health/digest/pubs/celiac/index.htm
- www.glutenfree.com
- Support group cinceliac.com

Bottom Line

- Celiac disease can be managed successfully with education, resources and support.


