

***Gluten Free Nutrition***

**What is Gluten?** Gluten is the protein found in grains, including wheat, barley, rye and spelt. It is the soft, chewy structure found in bread.

**Are there safer grains that don’t contain gluten?** Yes, these include corn, amaranth, quinoa and rice. There are many new flours available now, including garbanzo flour, sorghum flour, and coconut flour that can be substituted for wheat flour. Be careful of certain grains and legumes that are often rotated in fields that contain wheat, such as, oats, buckwheat, millet, and lentils. Look for specifically marked gluten-free flours, rinse legumes before using and avoid processed foods.

**What is the difference between celiac disease and gluten intolerance?**

*Celiac disease* is an autoimmune disease caused by the gluten protein, gliadin. When a person with celiac disease ingests gliadin, their immune system produces anti-gliadin antibodies to combat this foreign protein. Unfortunately, these antibodies attack the gastrointestinal lining leading to reduced nutritional absorption. The small intestine is lined with villi whose purpose is to increase the surface area of the intestine, allowing greater absorption. Among celiac patients, it is the villi, which are attacked. Symptoms include immune deficiency, anemia, depression, migraines, osteoporosis, joint pain, skin issues (eczema), epilepsy, seizures, dementia, and cancer.

Conversely, *gluten intolerance* is not an autoimmune issue, with the immune system attacking itself. However, it can cause similar symptoms as an IgE allergic reaction is triggered. Long term, this can create a leaky gut, in which, large molecule proteins can enter intestinal cells before they are sufficiently broken down causing diminished absorption and harmful symptoms beyond malnutrition.

Patients who suspect *celiac disease* can get an absolute diagnosis with an endoscopy. Blood tests can also reveal the harmful antibodies. For those with an intolerance, a trial gluten-free diet can bring relief from symptoms. Gluten can take a while to leave your system. A trial of 3 to 6 months is recommended.

*What’s safe to eat?*

A black and white cow

Description automatically generatedA picture containing bird, gallinaceous bird, chicken

Description automatically generatedGrass-fed meat, poultry & fish

A picture containing indoor, black, white, dark

Description automatically generatedFree range eggs

A close up of a leaf

Description automatically generated Organic vegetables and fruits

A picture containing outdoor object, wasp's nest, dark, hay

Description automatically generated Seeds and nuts

A black and white cow

Description automatically generated Organic dairy products

A close - up of a plant

Description automatically generated with medium confidenceOrganic millet, sorghum

*Meal Suggestions*

A picture containing bird, standing, white, gallinaceous bird

Description automatically generatedBreakfast

NCM Seed Pudding

Cage free eggs with vegetables

Organic Greek yogurt with fruit

Smoothie with vegetables & fruit

Gluten free toast and cheese or avocado

Grass fed sausage

Nut butters on apples, celery, pears

A close up of a sunflower

Description automatically generatedLunch

Vegetable Soup

Hummus with vegetables

Lettuce Wraps for tuna or egg salad

Nori wraps for grilled chicken, fish

Salads topped with meat, poultry, eggs

Bean soups and salads

A picture containing sky, light, plant, lamp

Description automatically generatedDinner

Rice or quinoa pasta

Grilled meats or fish

Meatloaf

Spaghetti squash with pesto

Cauliflower crust pizza

Rataouie

Beef stew with vegetables

Frittata