**Information for patients**

**Gluten-Free Diet**

Your doctor has recommended this diet as an important part of your health care plan. This sheet contains information on label reading, shopping, dining out, gluten-free products, and organizations which can provide additional resources. Following this diet will lessen any unpleasant symptoms you may have and will help your body better absorb vitamins, minerals, and other nutrients necessary for good health. The more closely you follow these guidelines, the better you will feel.

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| **Foods and Ingredients to Avoid** | | | |
| Barley  Barley malt  Beer  Brewer’s yeast  Bulgur  Couscous  Durum  Einkorn wheat  Emmer  Farina  Farro  Flour | Gluten  Gluten stabilizers Graham  Graham flour  Groats  Kamut  Malt  Malt flavorings  Malt extract  Malted milk  Malt beverages  Malt syrup | Malt vinegar  Oats  Oatmeal  Oat bran  Oat gum  Pasta  Rye  Rye flour  Seitan  Semolina  Spelt  Triticale | Wheat berry  Wheat germ  Wheat grass  Wheat gluten  Wheat nut  Wheat starch  Wheat protein  Wheat bran  Wheat |

**Label Reading**

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* The FDA only allows packaged foods with less than 20ppm of gluten to be labeled “gluten-free.”
* Products labeled wheat-free are not necessarily gluten-free. Wheat-free products can contain rye and barley-based ingredients that are not gluten-free.
* Check the allergy statement, which can typically be found under the Nutrition Facts label. Companies are required to list if any of the top 8 allergens are in their product. Wheat must be listed if it is in or has come in contact with the product. **Remember, this doesn’t mean the product is gluten-free, but it can be a good place to look if you’re questioning a product.**

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| **Gluten-Free Grains** | | |
| Amaranth  Arrowroot  Buckwheat  Carob | Corn  Millet  Potato  Rice | Soybeans  Tapioca  Quinoa  Sorghum |

**A Note on Oats**

* ****Oats contain a protein called avenin. Avenin is structurally similar to gluten and has been known to reactivate gluten-reactive T cells in some patients. Reactivation is most common in newly diagnosed patients.
* After following a gluten-free and oat-free diet for 12-18 months and your symptoms have resolved, consider reintroducing oats slowly. We recommend a maximum of ½ cup of oats per day. It is important to gradually add oats to the diet as the increased fiber may cause gastrointestinal distress.
* When purchasing oats, select only those certified gluten-free. Oats can be exposed to gluten-containing grains in the field and can become gluten-contaminated.

**Tips for Shopping**

- Always read the product label carefully. Food companies change ingredients and production methods frequently, always check the ingredients list.

- Many companies have both gluten-containing and gluten-free products with similar packaging. It can be easy to mistakenly grab the wrong product. Always double-check the label!

- Check the ingredients list. Please see our list of ingredients to avoid when shopping (page 1).

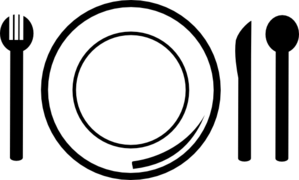
- Shop the perimeter of your grocery store first. Purchase fresh produce, meats, poultry, dairy and eggs which are naturally gluten free.

- Pick nutrient-packed gluten free grains like millet, amaranth and quinoa for added fiber (page 3).

- Purchase condiments in squeeze containers to avoid cross-contamination at home, or consider buying double of each jarred condiment. Label one as gluten-free.

- If you’re ever in doubt, call the manufacturer with specific questions. As a consumer, you have every right to know exactly what’s in your food.

**Tips for Dining Out**

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* Plan ahead: check the restaurant’s menu online. Look for any information on cross-contamination or gluten-free accommodations. Contact the restaurant to ask if they can accommodate a gluten-free diet. Tell them when you will be arriving and ask to speak with the manager when you arrive.
* Go simple: ask for a plain piece of grilled or broiled meat/fish/chicken with olive oil and lemon juice, or butter and herbs. Avoid marinated meats or meats served with sauces or gravies.
* Choose a baked potato as a side dish – avoid rice dishes and French fries.
* Order a plain salad without croutons and dressing – ask for oil and vinegar or bring your own dressing.
* Ask the restaurant staff to describe the ingredients and food preparation techniques.
* Avoid fried foods, as the breading may contain gluten or may be fried in a gluten-contaminated fryer.
* *If in doubt don’t order it!*

**Cross-Contamination**

An important aspect of maintaining a gluten-free diet is to avoid cross-contamination. Cross-contamination occurs when gluten-free foods come into contact with gluten. It is essential to avoid cross-contamination to ensure safety for people with celiac disease.

Common Places for Cross-Contamination:

* Toasters – if sharing a kitchen with someone with celiac disease, you should purchase a designated gluten-free toaster
* Colanders and strainers – these are difficult to clean. Gluten-containing pasta and grains can easily get stuck and cause contamination
* Cutting boards
* Flour sifters
* Cooking oils – if shared with gluten-containing breaded products. (chicken tenders, French fries, donuts, etc.)
* Shared containers
* Bulk bins at grocery stores – these are often improperly washed
* Jarred condiments and butter – can lead to contamination if a utensil used on gluten-containing food are double-dipped in the jar or on the butter stick
* Wheat flour – can remain in the air after use and can contaminate exposed surfaces or any uncovered gluten-free products



* Pizza and pasta – some restaurants may use the same preparation surface for their gluten-free and gluten-containing pizzas. Some restaurants may use the same cooking water for their gluten-free and gluten-containing pastas. See our recommendations for dining out (page 2)
* Bakeries – gluten-free goods served at gluten-containing bakeries. Unless they are prepared and pre-packaged at a gluten-free facility, they have most likely been cross-contaminated with gluten

**Common Deficiencies**

Most gluten-free grains are unfortified; therefore vitamin and mineral deficiencies are more common in those following a gluten-free diet. Some potential deficiencies include: fat-soluble vitamins (A, D, E and K), calcium, vitamin B12, folic acid, zinc, magnesium, iron and fiber. A daily children’s multivitamin should have you covered, make sure calcium and vitamin D are included.

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| **Recommended Daily Allowances** | | | |
|  | **Ages 1-3** | **Ages 4-8** | **Ages 9-18** |
| **Calcium** | 700 mg | 1000 mg | 1300 mg |
| **Fiber** | 19 g | 25 g | 25-35 g |
| **Folic Acid** | 150 mcg DFE | 200 mcg DFE | 300-400 mcg DFE |
| **Iron** | 7 mg | 10 mg | 8-15 mg |
| **Magnesium** | 80 mg | 130 mg | 240-410 mg |
| **Vitamin A** | 300 mcg RAE | 400 mcg RAE | 600-900 mcg RAE |
| **Vitamin B12** | 0.9 mcg | 1.2 mcg | 1.8-2.4 mcg |
| **Vitamin D** | 600 IU | 600 IU | 600 IU |
| **Vitamin E** | 6 mg | 7 mg | 11-15 mg |
| **Vitamin K** | 30 mcg | 55 mcg | 60-75 mcg |
| **Zinc** | 3 mg | 5 mg | 8-11 mg |

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**Fiber**

A common side effect of the gluten free diet is constipation. Many gluten free products use low fiber substitutes, like rice, corn, tapioca, and potato flour to replace wheat.

* Children should aim to eat 20-30g fiber per day.
* Please note: when increasing fiber in the diet it is important to start slow and gradually increase. Also, proper hydration is also key to avoid any gastrointestinal discomfort.



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| **Gluten-free Grains** | | |
| **1/2 cup, dry** | **Fiber Content** | **Protein Content** |
| Amaranth | 4 grams | 4 grams |
| Beans/Legumes | 4 grams | 4 grams |
| Millet | 8 grams | 11 grams |
| Sorghum | 16 grams | 10 grams |
| Teff | 8 grams | 14 grams |
| Quinoa | 8 grams | 16 grams |

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| **Gluten-free Flours** | | |
| **1/2 cup serving** | **Fiber Content** | **Protein Content** |
| Almond flour | 6 grams | 12 grams |
| Amaranth flour | 6 grams | 8 grams |
| Black bean flour | 10 grams | 16 grams |
| Chickpea/Garbanzo bean flour | 10 grams | 12 grams |
| Coconut flour | 20 grams | 8 grams |
| Fava bean flour | 16 grams | 18 grams |
| Hazelnut flour | 6 grams | 8 grams |
| Millet flour | 8 grams | 6 grams |
| Oat Flour | 4 grams | 6 grams |
| Quinoa flour | 4 grams | 8 grams |
| Sorghum flour | 6 grams | 8 grams |
| Teff flour | 10 grams | 10 grams |
| White bean flour | 16 grams | 14 grams |