## Gluten-Free Eating

Gluten is a general name for the storage proteins (glutelins and prolamins) found in wheat, barley, rye and related cereal grains such as triticale, spelt and kamut. If you have either of these autoimmune diseases: celiac disease (CD) or dermatitis herpetiformis (DH), a skin form of celiac disease, even a small amount of gluten is harmful. In CD, gluten damages the small intestine resulting in poor absorption of nutrients including vitamins and minerals. In DH, gluten causes skin rashes and itching and can also damage the small intestine.

A strict gluten-free diet (GFD) is the only effective treatment for CD and DH and requires the lifelong elimination of all foods containing wheat, barley, rye, related cereal grains and regular commercial non-gluten-free oats.

A GFD will help your small intestine to heal and will eventually result in elimination of the signs and symptoms, which can include any or all:

- diarrhea
- constipation
- stomach pain/bloating/gas
- weight loss
- chronic fatigue/weakness
- low iron levels
- muscle cramps
- bone and joint pain

For a more complete list of symptoms see the Canadian Celiac Association website: https://www.celiac.ca/healthcare-professionals/diagnosis/.

The diet also reduces the risk of developing osteoporosis, reduced fertility, lymphoma and potentially other autoimmune disorders. Even if you are symptom free, continuing with a strict gluten-free diet will reduce your risk of these long-term complications.

## Getting Started on a Gluten-Free Diet

It is still essential that you meet with a registered dietitian with expertise in celiac disease who can help you to adapt to the gluten-free lifestyle, including any social and emotional aspects. A dietitian will also be able to help you identify and address any nutritional concerns as well as some of the practical issues of following a gluten-free diet. Some examples include: label reading, cross-contamination and eating away from home.

In addition to avoiding gluten, it is just as important to make healthy food choices and consume a nutritionally balanced diet. A balanced gluten-free
diet includes enough key nutrients like dietary fibre, iron and $B$ vitamins which are more challenging to get when you eliminate wheat-containing products. Ask your doctor for a referral to a registered dietitian.

Consider joining a support group such as the Canadian Celiac Association www.celiac.ca.

## The Story on Oats

The storage protein in oats, called avenin, does not appear to be damaging in CD. Traditionally, oats have been restricted in the GFD because regular commercial oats can be contaminated with wheat, barley, rye and related cereal grains.

Health Canada and the Canadian Celiac Association have developed a position statement on oats indicating that pure, uncontaminated oats (gluten-free oats) are safe for the majority of people with CD. A small number of people with CD may not tolerate even pure, uncontaminated oats. The reason for this isn't known. Discussions with your doctor and registered dietitian are recommended before introducing gluten-free oats into your GFD. For more information on oats see Additional Resources.

## Cross-Contamination

When preparing "gluten free" food, you must be careful to avoid crosscontamination with gluten containing ingredients and foods. This is true both at home and when eating food away from home. Even very small amounts of gluten can cause damage to the intestine and/or the skin.

You will need your own toaster and containers for condiments such as peanut butter, margarine and jam. All meal preparation surfaces including cutting boards, utensils, pots and pans must be clean and free from gluten before you prepare a gluten-free meal.

Cross-contamination can also occur in bulk food bins, restaurants (e.g. deep-fried foods cooked in oil used for frying breaded products), and in food manufacturing plants.

Note: It is recommended that you choose grains, flours and cereals that are clearly labelled "gluten free" as they are at high risk of cross-contamination. Ideally choose pulses (dried beans, peas and lentils) that are labelled "gluten free". If using pulses that are not labelled "gluten free" it is essential to thoroughly check for foreign materials. Place pulses on a clean cookie sheet CCa CANADEENN CCELIAOUE

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and look for any pebbles or kernels of grain that need to be removed. Rinse thoroughly before cooking.

The Canadian Celiac Association has more information on cross contamination: https://www.celiac.ca/living-gluten-free/newly-diagnosed/

## Reading Food Labels

Reading food labels is essential to ensuring you are following a gluten-free diet. The ingredient and May Contain lists will help you to choose safe gluten-free options. A registered dietitian can teach you how to identify sources of gluten and what to look for when reading food labels. For examples see the list below and the Foods to Question column in GlutenFree Diet by Food Groups table starting on page 5.

## Gluten Containing Foods and Ingredients

| Atta (chapatti flour) | Farro or Faro (also | Matzoh, matzoh meal |
| :--- | :--- | :--- |
| Barley (flakes, flour, | known as dinkel or | Modified wheat starch |
| pearl) | Spelt)* | Oatmeal, oat bran, oat |
| Beer, ale, lager (made | Freekeh (roasted young | flour and whole oat |
| from barley, wheat | green wheat kernels) | graats*** |
| and/or rye) | Pastas |  |
| Breading and bread | Graham flour | Rye bread and flour |
| stuffing | Hydrolyzed wheat | Seitan **** |
| Brewer's yeast | protein | Semolina |
| Bulgur | Kamut* | Spelt (also known as |
| Couscous | Malt, malt extract, malt | dinkel, farro or faro)* |
| Dextrin | syrup and malt flavoring | Triticale |
| Dinkel (also known as | Malted barley and | Wheat bran |
| farro, faro or spelt)* | malted barley flour | Wheat flour |
| Durum* | Malt vinegar | Wheat germ |
| Einkorn* | Malted milk | Wheat gluten |
| Emmer* |  |  |
| Farina |  |  |

* Types of wheat
** A popular Asian food comprising concentrated wheat gluten and wheat flour, used in vegetarian dishes, soups and desserts.
*** Unless from pure, uncontaminated oats and labelled gluten-free
**** A meat substitute made from wheat gluten, seasonings and other ingredients.
Sometimes referred to as "wheat meat", it is used in many vegetarian dishes.
Source: Adapted from: Gluten Free: The Definitive Resource Guide 2016 by Shelley Case, Dietitian. www.shelleycase.com. Reprinted with permission.

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More information on reading food labels can be found on the handout: Label Reading and Shopping Tips by Shelley Case RD: https://shelleycase.com/gluten-free-information/ or by watching Canadian Celiac Association's webinar 'Is that safe for me" https://youtu.be/QyJwBhiwQGO.

The Canadian Celiac Association's Pocket Dictionary of Ingredients is an excellent guide to help determine if a food is gluten-free or not. You receive a copy of it in the new members kit when you join the Canadian Celiac Association or you can purchase a copy at: https://www.celiac.ca/living-gluten-free/gluten-free-shop/

Listed below are some items that may contain gluten.

- Broth, soup, soup bases
- Burgers, meatloaf
- Candies (some chocolates, chocolate bars and licorice)
- Flavored coffees and teas
- Imitation bacon bits and imitation seafood
- Medications (check with your pharmacist)
- Sausages, hot dogs, deli meats
- Sauces, marinades, gravies
- Seasonings
- Soy sauce


## Gluten-Free Baking

When first learning to bake gluten-free products use recipes from a glutenfree cookbook. Often it is difficult to change a regular recipe to a gluten-free recipe and you may need to try a few times with different gluten-free flours to get it to work well.

See Additional Resources for cookbook suggestions.

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## Gluten-Free Diet by Food Groups

| Food Group | Food Allowed | Foods to Question | Foods Not Allowed |
| :---: | :---: | :---: | :---: |
| Milk and Alternatives | Milk, buttermilk, cream, sour cream, whipping cream, most ice creams, yogurts, frozen yogurts |  | Malted milk, packaged granolatopped yogurt, ice cream and frozen yogurt made with ingredients notallowed (e.g. brownies, cookie dough or crumbs, ice cream cakes |
|  | Cottage cheese, cream cheese (plain), hard cheeses (e.g. cheddar, mozzarella, Parmesan, Swiss), soft cheeses (e.g. brie, blue cheeses, Gorgonzola, roquefort, Stilton), processed cheese, processed cheese foods | Dips with cream cheese or sour cream, cheese sauces, cheese spreads, seasoned/ flavored shredded cheese or cheese blends | Specialty cheeses made with barleybased beer |
| Non-Dairy Alternatives | Most non-dairy beverages (e.g. flax, hemp, potato, quinoa, rice, soy); soy-based cheese and cream cheese, coconut or soy yogurt, ice cream made with non-dairy beverages (e.g. cashew, coconut, rice, soy) |  | Non-dairy beverages (e.g. flax, hemp, nut, oats*, potato, quinoa, rice, soy) made with barley malt, barley malt flavoring or barley malt extract <br> *Oats used in these beverages are not usually gluten free |


| Food Group | Food Allowed | Foods to Question | Foods Not Allowed |
| :---: | :---: | :---: | :---: |
| Grains, Flours and Starches | Amaranth, arrowroot starch, buckwheat, corn bran, corn flour, cornmeal, cornstarch, flax, kañiwa, mesquite flour, millet, nut flours (almond, cashew, chestnut, hazelnut, walnut), potato flour, potato starch, gluten-free oats (flour, groats, rolled oats/oatmeal, steel cut); pulse flours (bean, garbanzo/chickpea, Garfava ${ }^{\text {TM }}$, lentil, pea), potato flour, potato starch, quinoa, rice (black, brown, green, purple, red, white, wild), rice bran, rice flours (brown, glutinous/ sweet, white), rice polish, sago, sorghum flour, soy flour, sweet potato flour, tapioca (cassava manioc), taro (dasheen/eddo) teff, wild rice | Buckwheat flour and items made with buckwheat flour <br> Oats (oat bran, oat flour, oat groats, rolled oats/oatmeal, steel cut) | Atta, barley, couscous, graham flour, triticale, wheat (all types including durum, einkorn, emmer, farro, kamut, spelt), freekeh, wheatbased semolina, wheat bran, wheat farina, wheat flour, wheat germ, wheat gluten, wheat starch* <br> * Most wheat starches contain high levels of gluten protein. However, some gluten-free products may contain specially processed wheat starch |
|  | Hot Cereals <br> Amaranth, buckwheat grits, (cream of buckwheat), corn grits, cornmeal, cream of rice (brown, white), hominy grits, millet grits, |  | Hot cereals and infant cereals made with wheat, rye, triticale, barley and/or oats |


| Food Group | Food Allowed | Foods to Question | Foods Not Allowed |
| :---: | :---: | :---: | :---: |
|  | gluten-free rolled oats/ oatmeal and steel cut oats, quinoa, quinoa flakes, rice flakes, soy flakes and soy grits |  |  |
|  | Cold Cereals <br> Puffed gluten-free grains (e.g. amaranth, buckwheat, corn, millet, rice, sorghum), gluten-free cornflakes, glutenfree crisp rice, glutenfree granola (with or without gluten-free oats), rice flakes, soy-based cereals, other cereals with allowed ingredients |  | Cold cereals made with wheat, rye, triticale, barley and/or oats <br> Cereals made with added barley malt, barley malt extract or barley malt flavoring |
|  | Pastas <br> Macaroni, noodles, spaghetti and other pasta shapes made from: corn, dried beans, lentils and peas; millet; potato; quinoa; rice; soy; wild rice | Buckwheat pasta | Pastas (e.g. chow mein noodles, orzo, udon) made with wheat and/or other not-allowed ingredients |
|  | Rice <br> Plain rice (black, brown, green, purple, red, white), wild rice | Seasoned (flavored) rice mixes, rice pilafs |  |
|  | Miscellaneous <br> Gluten-free tortillas/wraps, gluten-free pizza dough /crust <br> Gluten-free croutons | Corn tacos, corn tortillas/wraps, polenta <br> Croutons | Wheat flour tacos and tortillas/wraps, pizza dough and crust made with notallowed ingredients; tabouli/tabbouleh |

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| Food Group | Food Allowed | Foods to Question | Foods Not Allowed |
| :---: | :---: | :---: | :---: |
|  | Gluten-free communion hosts/ wafers, gluten-free matzoh/matzo/ matzah | Low gluten communion hosts/wafers | Regular communion hosts/wafers; matzoh/matzo/ matzah made with wheat flour |
| Meats and Alternatives | Meat, fish, poultry, seafood <br> Plain (fresh, frozen, canned) meat, poultry, fish, seafood; gluten-free breaded meat, poultry, fish seafood | Deli/luncheon meats (e.g. bologna, ham, salami), frankfurters /wieners <br> sausages; meat and sandwich spreads; pâtés <br> Burgers (meat, fish, chicken or turkey), meatloaf, ham (ready-to-cook), dried meats (e.g. beef jerky) <br> Imitation bacon bits <br> Imitation crab or lobster (e.g. surimi), seasoned/flavored fish in pouches | Meat, poultry, fish and seafood breaded in not-allowed ingredients; frozen chicken breasts injected with chick broth (containing not-allowed ingredients); frozen turkey basted or injected with hydrolyzed wheat protein; frozen or fresh poultry with bread stuffing <br> Canned fish in vegetable broth containing hydrolyzed wheat protein |
|  | Eggs <br> Plain whole eggs, (fresh, frozen, liquid, powder), plain omelets, scrambled eggs <br> Plain egg whites (frozen, liquid, powder) | Seasoned or flavored egg products (liquid or frozen) | Omelets and scrambled eggs made with glutencontaining ingredients |
|  | Legumes Beans (black, kidney, navy, pinto, white), chickpeas/garbanzo beans, lentils, peas, soybeans | Canned beans in sauce |  |


| Food Group | Food Allowed | Foods to <br> Question | Foods Not <br> Allowed |
| :--- | :--- | :--- | :--- |
|  | Nuts and Seeds <br> Plain or salted nuts <br> and seeds (chia, flax, <br> hemp, pumpkin, <br> sesame, sunflower) | Seasoned or dry <br> roasted nuts, <br> pumpkin seeds and <br> sunflower seeds <br> Nut and seed butters <br> (e.g. almond, <br> hazelnut, peanut, <br> sesame, sunflower) |  |
|  | Meat Alternatives <br> Plain tofu | Flavored tofu, <br> tempeh, textured <br> soy protein (TSP)/ <br> textured vegetable <br> protein (TVP) | Fu, Seitan |


| Food Group | Food Allowed | Foods to <br> Question | Foods Not <br> Allowed |
| :--- | :--- | :--- | :--- |
| Soups | Gluten-free bouillon <br> cubes, dried soup <br> bases, prepared <br> broths, cream soups <br> and stocks; <br> homemade soups and <br> stocks made from <br> allowed ingredients | Prepared broths, <br> soups, dried soup <br> mixes, soup bases, <br> soup mixes and <br> bouillon cubes | Broths, soups and <br> stocks made with <br> not-allowed <br> ingredients; dried <br> soup bases, soup <br> mixes and bouillon <br> cubes containing <br> hydrolyzed wheat <br> protein, wheat <br> starch and/or wheat <br> flour |
| Snack Foods | Plain crackers made <br> with nuts, rice or <br> other gluten-free <br> grains; plain rice <br> cakes, corn cakes; <br> plain popcorn, potato <br> chips, soy nuts, <br> tortilla/ taco (corn) <br> chips | Seasoned (flavored) <br> crackers, rice cakes, <br> corn cakes; popcorn, <br> soy nuts, tortilla/ <br> taco (corn) chips; <br> wasabi peas | Potato or <br> tortilla/taco chips <br> with wheat flour, <br> wheat starch and/or <br> malt vinegar |
| Desserts | Cakes, cookies, <br> muffins, pies and <br> pastries made with <br> allowed ingredients; <br> gluten-free bread <br> pudding; gluten-free <br> flourless cake; <br> gluten-free ice cream <br> cones, wafers and <br> waffles | Flourless cakes | Bread pudding, <br> cakes, cookies, <br> muffins, pies, <br> pastries, ice cream <br> cones, wafers and <br> waffles made with <br> not-allowed <br> ingredients |
| Sugars | Custard, gelation <br> desserts, milk <br> puddings, sherbet, <br> sorbet | Crème brûlée <br> Agave nectar/syrup, <br> corn syrup, honey, <br> jam, jelly, <br> marmalade, maple <br> syrup, molasses | Honey powder |

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| Food Group | Food Allowed | Foods to Question | Foods Not Allowed |
| :---: | :---: | :---: | :---: |
|  | Brown sugar, coconut sugar, confectioner's/ icing sugar, turbinado sugar, white sugar | Icings and frostings, sweet sauces/ toppings |  |
| Candies and Other Sweets | Chocolates and chocolate bars made from allowed ingredients; glutenfree licorice, marshmallows, whipped toppings | Chocolates, chocolate bars, hard candies, Smarties ${ }^{\circledR}$ | Licorice and other candies made with not-allowed ingredients |
| Beverages | Cocoa, coffee (instant or ground; regular or decaffeinated), flavored waters, soft drinks, tea | Coffee substitutes, flavored coffees, flavored and herbal teas, hot chocolate mixes | Coffee substitutes made with notallowed ingredients (e.g. Postum ${ }^{\circledR}$ ); malt-based beverages (e.g. Ovaltine ${ }^{\circledR}$ ) [chocolate malt and malt flavors] |
| Alcoholic Beverages | Distilled alcohols (e.g. bourbon, brandy, gin, liqueurs, rum, rye whiskey, scotch whiskey, vodka); gluten-free beer, wine | Specialty premixed alcoholic beverages (e.g. Caesar vodka beverage, hard ciders, coolers), sake (rice wine) | Beers derived from barley, wheat and/or rye |
| Fats | Butter, margarine, lard, shortening, vegetable oil, mayonnaise, salad dressings with allowed ingredients | Baking/cooking spray, salad dressings, suet | Salad dressings made with notallowed ingredients |
| Condiments/ Sauces/Dips | Herbs, pepper, salt, spices | Seasonings, seasoning blends/ mixes <br> Curry paste |  |
|  | Ketchup, mustard (plain, prepared), mustard flour (pure), olives, pickles (in clear brine), relish, tomato paste | Mustards (specialty prepared), mustard flour (prepared), mustard pickles |  |


| Food Group | Food Allowed | Foods to <br> Question | Foods Not <br> Allowed |
| :--- | :--- | :--- | :--- |
|  | Vinegars (apple, <br> cider, balsamic, <br> distilled white/spirit, <br> pure rice, red wine, <br> white wine) | Rice vinegar | Malt vinegar, miso <br> (made with barley <br> and/or wheat) |
|  | Gluten-free barbeque <br> sauce, gluten-free <br> miso, gluten-free soy <br> sauce, gluten-free <br> tamari soy sauce, <br> gluten-free teriyaki <br> sauce, other sauces <br> and gravies made <br> with allowed <br> ingredients | Barbeque sauces, <br> cooking sauces, <br> Worcestershire <br> sauce | Soy sauce, tamari <br> soy sauce or shoyu <br> soy sauce (made <br> with wheat), teriyaki <br> sauce (made with <br> soy sauce containing <br> wheat); other <br> sauces and gravies <br> made with <br> hydrolyzed wheat <br> protein, wheat flour <br> and/or wheat starch |
| Miscellaneous | Baking chocolate <br> (pure), carob chips <br> and powder, <br> chocolate chips, cocoa <br> (plain), coconut | Baking soda, cream of <br> tartar, monosodium <br> glutamate (MSG), <br> vanilla (pure), vanilla <br> extract (artificial/ <br> imitation), vanilla <br> extract (pure), <br> natural vanilla flavor | Barley grass and <br> wheat grass |
| Guar gum xanthan <br> gum, psyllium husks | Autolyzed yeast, <br> Yeast (active dry, <br> baker's, nutritional, <br> torula) <br> extract/yeast extract | Brewer's yeast |  |

## Source of Table:

Gluten Free: The Definitive Resource Guide 2016 by Shelley Case, Dietitian. www.shelleycase.com. Reprinted with permission.

Note: In this publication, the above table includes additional footnotes and other charts that explain in detail why certain ingredients/foods are listed in the three categories. This handout does not include the additional information. ASSOCTATICN

Additional Resources

## About Oats

- Canadian Celiac Association Position Statement on Consumption of Oats: https://www.celiac.ca/oats-statement/
- Shelley Case RD - Do Oats Contain Gluten?: https://shelleycase.com/oats-contain-gluten/
- Tricia Thompson RD - Gluten Free Watchdog Position Statement on Oats: https://www.glutenfreewatchdog.org/news/gluten-free-watchdog-updated-position-statement-on-oats/


## Cookbooks

There are many gluten-free cookbooks available. Here are two trusted sources:

- Carol Fenster Cooks: http://www.carolfenstercooks.com
- Best Bread Recipes: http://www.bestbreadrecipes.com


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