

Food Sensitivities* and Lifestyle Diets

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**The term 'Sensitivity' encompasses both Allergy and Intolerance.*

Food Allergy

- The **immune system** reacts to a typically non-harmful protein found in food.
- The top 10 foods that cause allergic reactions are: eggs, milk, mustard, peanuts, seafood (fish, crustaceans, shellfish), sulfites, sesame, soy, tree nuts, and wheat.
- Manufacturers must label if any of these ingredients (or gluten) are in a packaged food. Always check the ingredient list.
- Reactions can be mild or severe; some food allergies are life threatening.
- Symptoms vary by allergy type and from person to person. Can involve respiratory tract (nose, eyes, throat), skin and mucous membranes (e.g. hives, itching), digestive tract (e.g. diarrhea, belching), nervous system (e.g. irritability, migraine, hyperactivity). May occur immediately or hours after (proximity to intake typically dictates severity).
- *Anaphylaxis* (a severe, rapid reaction) does not occur in all allergies, or all people with the same allergy.
 - Involves most of the body (e.g. usually starts at mouth, moves to digestive system, then systemic, which can include skin reaction, respiratory reaction, and general nervous system). Death may occur within minutes.
 - Use of an EpiPen (adrenaline) is integral to prevent death and lessen reactions.
 - Can be caused by almost any food, however most commonly: peanuts, nuts, shellfish, fish, cow's milk and eggs.
- *Oral allergy syndrome* is itching and/or swelling in or around the mouth and throat that occurs in some individuals with environmental allergies after eating certain raw fruit or veggies. If you know a girl has allergies to pollen consider checking with the parent that there aren't fruit/vegetables that cause trouble too.

Food Intolerance

- Food intolerance is a reaction which **does not involve the immune system**.
- Common food intolerances include: lactose (found in milk and dairy products), wheat, gluten (found in wheat, rye and barley), dairy products, eggs, amines (e.g. found in wine, aged cheeses, vinegar, fermented foods) and food additives (e.g. MSG, artificial colours, preservatives).
- Symptoms are usually not life-threatening, can range in severity. They involve the same body systems as allergies. Anaphylaxis does NOT occur.

Wheat & Gluten (includes Celiac Disease)

- Gluten is one of the proteins found in wheat (all varieties - includes dinkel, durum, emmer, einkorn, farro, kamut (also known as Khorasan, Oriental or Pharaoh wheat), semolina, spelt), rye, barley and triticale; oats do NOT contain gluten but may be contaminated with gluten if they are processed in the same factory
- Individuals with gluten sensitivity (an allergy or an intolerance) must avoid all three of these grains; those with wheat sensitivity only need to avoid wheat and *added* gluten

- **Wheat Sensitivity**

- Refers to both wheat allergy and intolerance

Ingredients to watch for:

bread crumbs bran* bulgur cereal extract* coffee substitute couscous dextrose* dinkel durum einkorn emmer	farina farro flour* germ gluten graham granola* hydrolyzed plant/ vegetable protein* kamut khorasan	malt* matzoh MSG* seitan semolina soy sauce* spelt starch* triticale vegetable gum* wheat
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** indicates may contain wheat, unless source noted on label*

Foods to be aware of or to question (and triple-check labels of!) include:

icing sugar icing candy chocolate licorice marshmallows pie fillings ice cream graham crackers/ crumbs granola bars dates meat balls and patties deli meats sausages hot dogs imitation bacon bits imitation seafood vegetarian meat substitutes flavoured tofu	soy sauce salad dressings specialty mustards gravy packaged/ canned sauces seasoning mixes/ blends bouillon cubes/ powder miso packaged/ canned soups seasoned rice mixes baked beans canned black olives cheese sauces cheese spreads multigrain chips flavored snack foods dry roasted nuts/seeds	hot and cold cereals granola pasta couscous buckwheat noodles bulgur croutons stuffing matzoh bread crumbs battered or breaded foods cocoa mix malted milk coffee substitutes flavoured coffees/teas coffee substitutes (except pure chicory) baking powder cooking spray
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➤ **Gluten Sensitivity**

○ ***Celiac Disease***

- severe reaction to even minute amounts of gluten, which causes damage to the small intestine and/or skin reactions
- must strictly avoid all sources of gluten (including cross-contamination that can occur by using the same toaster, cutting board, butter dish, bread knife... unless it is non-porous and well-sanitized, gluten protein can be transferred)
- even pure, non-contaminated oats *may* be a problem to some, but not all, people with celiac disease (reason unknown)

○ ***Gluten Intolerance***

- severity varies
- does not destroy gastrointestinal lining
- degrees of severity; do not need to avoid all particles of gluten as with celiac disease

➤ In addition to the ingredients listed under ‘Wheat Sensitivity,’ individuals with gluten sensitivity **must avoid:**

barley	malt (no question)
beer	oats*
brewer’s yeast	rye
food colouring*	Worcestershire sauce

**unless known to be uncontaminated with gluten*

- Naturally gluten-free foods include:
 - plain: meats, poultry, fish, eggs, legumes, nuts, seeds, milk, yogurt, cheeses, fruit, vegetables, vinegars (except malt vinegar)
- Naturally gluten-free grains, flours and starches include:
 - amaranth, arrowroot, buckwheat, corn, flax, legume flours (bean, chickpea, lentil, pea), millet, nut flours (almond, hazelnut, pecan), potato flour, potato starch, quinoa, rice, sorghum, soy, sweet potato flour, tapioca, teff

Dairy

➤ **Lactose Intolerance**

- lactose = naturally-occurring sugar in mammal milk (includes goat, sheep, buffalo...)
- amount of lactose in dairy-type foods varies (e.g. milk > yogurt > cheese)
- symptoms are of the digestive system
- added to many processed foods, is typically simple to determine on labels (no need to worry about words that look like lactose e.g. sodium stearoyl-2-lactylate)

Ingredients to watch for:

cheese cream lactose	milk, (including milk solids, malted milk, buttermilk...) whey yogurt
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Foods to be aware of or to question (and triple-check labels of!) include:

dips flavourings (e.g. chips, nuts, crackers, processed convenience foods) margarine powdered mixes (e.g. gravy, sauces, hot chocolate, meal replacements) processed meats (e.g. hot dogs, some deli meats) soups **also medications (as a filler)**
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➤ **Milk Allergy**

- allergy to protein in milk products (cow’s milk is more common than goat or sheep)

Ingredients to watch for*:

butter (e.g. butter flavour) casein & caseinates (e.g. ammonium caseinate) cheese (e.g. cheese flavour) cream curds custard dairy product solids galactose	ghee (clarified butter) lactalbumin lactate solids lactitol monohydrate (i.e. Splenda artificial sweetener) lactoglobulin lactose milk (e.g. milk solids)	nisin preparation (milk bacteria derivative) nougat pudding rennet, rennet casein whey yogurt (regular or frozen), yogurt powder
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**lactic acid, lactate and lactylate do not need to be avoided as they don’t contain milk*

Foods to be aware of or to question (and triple-check labels of!) include:

flavourings (e.g. natural flavor, artificial flavor, caramel flavour, brown sugar flavour) margarine (often contains whey) chocolate high protein flour “non-dairy” products (may contain casein, e.g. some soy cheese)

➤ **Some substitutions:**

- soy, rice, or nut milks (e.g. almond, cashew, coconut)
- non-dairy creamers (e.g. CoffeeMate)
- non-dairy whipped topping (e.g. Dreamwhip)

- non-dairy cheese (e.g. Daiya tapioca cheese)

Egg

Foods to avoid or to question (and triple-check labels of!) include:

baked goods (e.g. pancakes, muffin mixes) baking powders (some) batters (some, e.g. tempura) beverages may use egg as a clarifier (e.g. some root beers, wines, beers) custard egg nog	ice creams (some) instant Cream of Wheat marshmallows mayonnaise (real) meat patties or meat loaf (if egg used as a binder) meringue mousse nuts (some glazed or coated)	oatmeal (instant and flavoured) pasta processed meats (e.g. some sausages) puddings (some) salad dressings (e.g. real Caesar, some others)
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Lifestyle Diets

➤ **Halal Diet**

- Islamic religious diet
- Foods not permitted include: pork and its by-products (gelatin, lipase, pepsin), meat and poultry from animals not slaughtered according to Islamic dietary law i.e. not certified Halal, alcohol and foods containing alcohol (e.g. real vanilla extract, chocolate liqueur), foods containing blood and blood by-products
- Some food manufacturers have a “Halal-certified” identification label or symbol

➤ **Kosher Diet**

- Jewish religious diet
- Foods not permitted include: pork and its by-products (gelatin, lipase, pepsin), rabbit and its by-products, shellfish and their by-products, any meat and poultry from animals not slaughtered according to Jewish dietary law i.e. not certified Kosher.
- Milk and meat products must never be mixed.
- Most cheeses, grape juice, and wine must be certified Kosher.
- Some food manufacturers have a “Kosher-certified” identification label or symbol

➤ **Vegan**

- Excludes meat, fish, poultry, dairy and eggs and products containing these foods and derivatives (gelatin, as an example). May also exclude honey.
- Specific protein sources are typically legumes (dried beans, peas and lentils) including soy products (e.g. tofu), seeds and nuts.

➤ **Vegetarian**

- Omits meat and poultry, and often fish and/or dairy and/or egg.
- There are many types of vegetarian diets, depending on what is omitted from the diet (e.g. lacto-ovo vegetarian is a type and the name tells you what they DO eat)
 - lacto = dairy, ovo = egg, pesci = fish
- Protein-rich foods typically include legumes (dried beans, peas and lentils) including soy products (e.g. tofu), seeds and nuts.

Preventing Cross-Contamination in the Kitchen

➤ Goal

- Ensure that foods for those with food sensitivities do not become contaminated with food particles that need to be avoided, thus providing meals which are safe for people with food sensitivities

➤ Ways to prevent cross-contamination

- Create a contaminant-free workspace: make sure work surfaces, kitchen equipment, storage facilities etc. are thoroughly cleaned before preparing foods for those with sensitivities
- Prepare food for those with sensitivities before the general meal
- Use separate equipment/ utensils if possible (cutting board, utensils, separate toasters etc.) - this is necessary in preparing food for individuals with celiac disease (labeling gluten-free equipment can be helpful)
- After preparing contaminant-free foods wrap them tightly and store them away from foods that contain contaminants
- Use single serve condiments (butter, mayonnaise, jam, etc) when possible to avoid contamination
- Avoid buying from bulk bins

Sources Cited

- Canadian Celiac Association. "Non-Celiac Gluten Sensitivity." Accessed October 19, 2015.
- Case, Shelley. "Diabetes, Celiac Disease and the Gluten-Free Diet." November 1, 2010. Accessed October 10, 2015.
- Dietitians of Canada. "Eating Guidelines for Lacto-Ovo Vegetarians." Dietitians of Canada. November 27, 2014. Accessed October 19, 2015.
- Dietitians of Canada. "Eating Guidelines for Vegans." November 27, 2014. Accessed October 19, 2015.
- Dietitians of Canada. "Food Sources of Lactose." February 08, 2013. Accessed November 3, 2015.
<http://www.dietitians.ca/Your-Health/Nutrition-A-Z/Lactose/Food-Sources-of-Lactose.aspx>
- Dietitians of Canada. "Gluten-Free Eating." 2009. Dietitians of Canada. [updated April 11, 2011; accessed October 29, 2015].
http://www.glutenfreediet.ca/media/Gluten_Free_Eating_Apr_2011.pdf
- Health Canada. "Questions and Answers about the New Regulations to Enhance the Labelling of Food Allergens, Gluten, and Sulphites." August 16, 2012. Accessed October 19, 2015.
- Joneja, Janice Vickerstaff. 2003. Dealing with Food Allergies. Boulder (CO): Bull Publishing Company.
- Kashruth Council of Canada. "What Is Kosher." 2015. Accessed November 3, 2015.
- Shehada, Abeer. "GLUTEN FREE DIET A Training Module for Food Service Staff." Lecture, September 1, 2010.
- Skypala, Isabel, Carina Venter, and Rosan Meyer. "Food Allergy and Intolerances." British Dietetic Association. May 4, 2015. Accessed November 3, 2015.
- Toronto Public Health. "Guide to Understanding Halal Foods." 2004. Accessed November 3, 2015.