## Elimination Diet

For the Step 1 program, we usually begin with a very simple elimination diet, which means removing processed white, sugar and white flour products, gluten, corn, dairy, and soy from your diet for a period of 3 weeks. When the 3 weeks are over, follow the instructions on the handout "Instructions for Reintroducing Food". This process will help you discover if you have hidden food sensitivities. There is much more information about how to do this experiment and how to eat for immune health in Chapters 2 and 3 in The Immune System Recovery Plan.

Here is a summary of the four food categories, what you should remove and what you can eat as a substitute. Obviously, if you already know you have an allergy or sensitivity to a particular food that's on the "Foods to Include" list, don't eat it!

| Food Category | Food To Remove | Food To Include |
| :---: | :--- | :--- |
| Vegetables | Whole corn, corn syrup, corn <br> starch as an ingredient on food <br> labels. | All vegetables, steamed or <br> sautéed in olive or coconut oil. |
|  | All grains that contain gluten <br> including wheat, barley, spelt, <br> kamut, rye, and oats. All <br> white flour processed cookies, <br> cakes, pretzels, even if gluten <br> free. | Rice, millet, buckwheat, and <br> quinoa. Oats are okay if they <br> say "gluten free." |
| Starch, Bread, Cereal | All soy products, including <br> tempeh, tofu, edamame, soy <br> sauce, and tamari. Soy as an <br> ingredient on food labels | Lentils, chick peas, and all <br> beans. |
| Legumes | All cow, sheep, and goat milk, <br> yogurt, kefir, cheese, and but- <br> ter. Casein and whey as an <br> ingredient on food labels. | Dairy substitutes: almond, rice, <br> coconut, and hemp milk. Co- <br> conut milk yogurt and kefir |
| Dairy |  |  |

## Foods That Contain Dairy

| Contain Dairy | Milk Substitutes | Non-Dairy Products |
| :--- | :--- | :--- |
| Pancakes | Soy Milk | Non-dairy ice cream, Soy or <br> rice |
| Muffins | Rice Milk | Non-dairy chocolate <br> Rice milk or very dark |
| Crackers | Almond Milk | Non-dairy yogurt <br> Soy or rice |
| Biscuits | Hemp Milk | Trans-fat-free margarine |
| Cakes | Coconut Milk | Non-dairy cheese (Some con- |
| Baking mixes chasein, check label) |  |  |

## Guide to a Gluten-free Diet

Gluten is found in many grains. Rice and oats do not contain gluten. However, oats are frequently processed in factories that process gluten-containing grains and should be avoided unless the oats label reads gluten-free. For gluten free oats visit this website www.glutenfreeoats.com.

You must read labels to determine if a product is truly gluten-free because wheat and the other gluten containing grains are often found in many processed foods.

| Contain Gluten | Contain Wheat | Alternatives to Wheat/Gluten |
| :--- | :--- | :--- |
| Bread | Salad dressing | Corn |
| Cakes | Soups | Potato |
| Cookies | Seasoning Mixes | Brown Rice |
| Muffins | Soy Sauce | Soybeans |
| Donuts | Lunch Meats | Tapioca |
| Wheat Barley |  | Arrowroot |
| Semolina |  | Carob |
| Rye |  | Buckwheat |
| Spelt |  | Quinoa |
| Cereals |  | Millet |
| Pastas |  | Teff |
| Oat ( Low Gluten ) |  |  |
| Kamut |  |  |

Celiac Disease is an autoimmune condition in which individuals develop severe damage to the small intestine from eating gluten.

Gluten sensitivity: You feel better when you don't eat gluten, and worse when you do. You can be gluten sensitive and not have celiac disease.

## Suggested websites for Products:

» www.Glutenfreemall.com
» www.glutenfree.com
" www.samisbakery.com
» www.glutenfreechecklist.com

## Flours

Flour has many uses in cooking. It is the base for breads, cookies, cakes, muffins, and pancakes, and acts as a thickening agent in soups and sauces. Wheat is the primary source of flour in the US, and because of the refining and over-consumption, many people have become sensitive to it. This type of flour is highly refined. In this process, $93 \%$ of the fiber is removed, $50 \%$ of the linoleic acid (an essential fatty acid humans need for health) is lost, 22 minerals and vitamins are reduced to $20 \%$ of original content, most vitamin E is removed, and further bleaching strips the remaining nutrients and leaves dioxin residues. Try kamut flour, an ancient grain used by the Egyptians, or blue corn flour, a staple of the Native Americans. Experimenting with an array of flours will have you enjoying new flavors, aromas and textures in your baked goods.

## Usage

All whole grains can be ground to make flour, but they are not all interchangeable. Each whole grain has its own character in flour form. They range from silky to gritty, and produce different outcomes when baked. Wheat is the most versatile and popular because of its gluten content, which allows recipes to bind easily and smoothly without crumbling.

When experimenting with different whole-grain flours, do so gradually. For example, if a recipe calls for 1 cup wheat flour, try $1 / 4$ cup of a whole-grain flour that you feel is suitable and $3 / 4$ cup wheat. Next time you make the recipe, increase the amount until it suits your taste. Also try blending different whole-grain flours to produce desired effects. The best way to begin experimenting with new flours is to find recipes that are specifically tailored to the type of flour you want to use.

## Selection

Look for organic flour that comes from a stone-ground mill. The way the flour is milled has an effect on the flour's performance, flavor and nutrition. For those who are wheat sensitive, there is a wide selection of non-wheat and low-gluten flours indicated here. Check manufacturers' packaging. Look to your store bulk food section to save on cost while buying just the amount you need.

Amaranth: gluten-free, but contains glycogen; strong sweet nutty flour; best used as an accent flour; do not use in recipes that need baking yeast

Atole: gluten-free, finely ground roasted blue corn flour; used in pudding, as a thickener for warm drinks, tortillas; can add to cookies, muffins, pancakes and breads
» Brown rice: gluten-free; use for piecrust, batter breads, crackers, pizza crust (to make it crispy); grainy texture; substitute in small amounts; in breads, must be combined with sticky flour like oat, rye or potato; good $100 \%$ rice flour breads are possible if you add xanthan gum, a vegetable gum; buy in small amounts as high oil content leads to quick rancidity
» Buckwheat: wheat-free, gluten-free; use in pancakes, waffles and pastas; do not use in sauces as it will turn to glue; adds hearty flavor to baked goods, moist and fine crumbs

Cornmeal, yellow \& blue: gluten-free; both are delicious in pancakes, muffins, corn breadwhich turns a lavender color when cooked, and tortillas as well as for thickening sauces; the blue cornmeal has a high nutrition content.

Millet: gluten-free
" Chickpea: gluten-free; high in protein, calcium; use in crêpes, East Indian flat bread called dosas; use as a shortcut in hummus and falafel balls; also known as chana

Polenta: gluten-free; coarsely ground cornmeal; high in vitamin A
Quinoa: gluten-free but has glycogen; contains twice the protein of corn or rice; use in bread; dry-roast to enhance its flavor; try $50 \%$ in cake recipes; use $100 \%$ for pancakes, crêpes, muffins, crackers, cookies
»Soy: gluten-free; adds moisture to baked goods and extends their keeping ability, use no more than $25 \%$ incakes and even less in breads, otherwise they will rise too quickly
» Teff: gluten-free; used in Ethiopian staple bread, injera; makes tasty quick breads, pancakes and waffles; for leavened bread use 5 parts wheat flour to 1 part teff; substitute up to $20 \%$ in recipes; a sweet, malty flavor; use to thicken stews, soups, sauces

## *The following contain gluten:

Oat flour: low-gluten: contains antioxidants that helps baked goods retain freshness: sweet taste, great to add to cookies, pie crust and muffins; use in soups and sauces for dairy-free, milk-like base. Gluten-free oats are ok.
» Kamut: high-gluten, protein-packed, rich-tasting type of wheat; does not rise well so do not fully substitute, blend with others; adds beautiful amber color; works well in pizza crust, flatbreads and pasta
" Barley: contains gluten; add to breads for cake-like effect; increases sweetness; lightly roast before adding; combine with others like whole wheat or spelt for breads; use to thicken gravies and sauces and add a sweet taste
»Spelt: contains gluten; an ancient grain that today is often used to replace wheat; when using as a substitute, reduce the liquid by $25 \%$; do not over knead, the gluten is sensitive

Whole-wheat flour: high-gluten; made from hard red winter wheat berries; an allpurpose flour; more nutritious than white so a perfect $100 \%$ substitute
" Whole-wheat pastry flour: less gluten than whole-wheat; made from soft spring wheat berries; produces a fine crumb, crust may be crumbly because it absorbs less water than white, try a 50/50 mix with unbleached white flour

## Storage

Always store in an airtight bag or container and refrigerate. It is best to buy the flour you need in small amounts and use them soon thereafter, since flour has a limited shelf life of a month or two. If you must use a flour that has turned bitter or is past its shelf life, you can freshen it by dry-roasting it in a skillet over medium heat, shaking constantly until it emits a pleasant scent.

## Website for Products

» Creamhillestates.com
» Glutenfreeots.com
» Glutenfreemall.com
» Glutenfree.com
» Glutenfreechecklist.com
» Samisbakery.com

## Gluten Sensitivity

## What is gluten?

Gluten is a protein-starch compound that contains several proteins including gliadin, a protein found in wheat and other grass family grains. Gliadin is the main protein that produces problems for people who are sensitive to gluten.

## Why is gluten a problem?

About $30 \%$ of people of European descent carry one or both of two genes for gluten sensitivity. Only a very small percentage of people with the genes will have the most severe form of gluten sensitivity called celiac disease. But many others will have symptoms across a spectrum of expression, including an inflammatory reaction to gluten in the small intestine, immune system dysfunction, systemic inflammation and autoimmune problems. Some people also have an allergy to wheat which shows up as sneezing, asthma, itching eyes, hives, anaphylaxis or migraines. This allergy can be to gliadin as well as to other proteins in wheat.

Scientists propose that because wheat and grasses are relatively new food items for humans in the greater scheme of things, the body hasn't fully adapted to it. Gluten is added to many prepared foods and wheat has been bred to increase its gluten content making it higher in protein and increasing the elasticity in bread. So our exposure is much higher than decades ago and with more exposure comes more of a chance for reactions.

## What other health problems are associated with gluten sensitivity?

Gluten may be a problem for you if you have an autoimmune condition like Hashimoto's thyroiditis, rheumatoid arthritis, eczema, asthma, or related conditions. If you have chronic digestive problems, infertility, or depression, gluten may play a part in these as well.

## How do I know if gluten is a problem for me?

The simplest way to tell if gluten is a problem for you is to eliminate all gluten-containing foods from your diet for 3 full weeks. At the end of that time, reintroduce those foods at every meal for one day and then listen to your body's reaction(s) for the next two days. If you have an increase in symptoms such as fatigue, headaches, gas or bloating, sneezing, joint pain, or skin breakouts, this is a strong indication that gluten is a problem. For people with an autoimmune condition that shows up with changes in blood tests, you may have to eliminate gluten for several months to see a difference.

## Websites for lists of gluten-free foods and foods to avoid that contain gluten :

» http://www.celiac.com
» http://www.glutenfreefoods.net
» http://www.mayoclinic.com/health/gluten-free-diet/my01140
» http://www.glutenfreegirl.com/
» http://www.glutenfreegoddess.blogspot.com/
» http://www.lucyskitchenshop.com/flour.html
» http://www.elanaspantry.com/about/
» http://www.celiac.org/
» Wikipedia article on gluten-free diet

## Instructions for Reintroducing Food

After 3 weeks on an elimination diet, it is time to reintroduce all of the food you have removed during the program. The purpose of doing this very slowly is to find out if you have any food sensitivities. Sometimes it's hard to know if you feel better off of a certain food, however, keep in mind that the most important part of the experiment comes when you reintroduce it again. It is an opportunity to really feel the effects of the food in your body and have what we call an "Ah Ha!" moment if you have a reaction. If you follow the instructions below, and have a physical or emotional response to a particular food, you know that you have a food sensitivity to this food. Here are your instructions:
» Introduce one food at a time. Eat that food several times over 2 days. Observe on day 3. If no reaction, add the next food on day 4.
» If you do have a reaction, such as headache, rash, brain fog, fatigue, digestive reaction or other symptom you are familiar with, write it down in the food reintroduction chart below or a food journal so you don't forget later. (A place you keep notes on your PDA will work fine.)
» If you discover a particular food isn't good for you, remove it again. The food reaction should go away within a day or 2.

## Then it is time to try the next food.

When you have finished reintroducing all the foods you had removed, you have finished the program. Congratulations! As you return to your every day life, you need to remember to avoid those foods that triggered a reaction when you ate them again. Some of you might be okay using the $90 \%$ rule ( $90 \%$ of the time don't eat the food, allowing it on rare occasions), while others will need to be more vigilant and remove these foods $100 \%$. It depends on how severe your reaction was and how sick you are.

Describe your reaction to each food in the chart below.

| Date | Example |
| :---: | :---: |
| Time | 7am |
| Food | bread |
| Digestion/ Bowel function | constipation, gas |
| Joint/ muscle aches | none |
| Headache / Pressure | Brain Fog |
| Nasal or Chest Congestion | none |
| Energy Level | Anxious |
| Weight | $+2 \mathrm{lbs}$ |
| other | Itchy Eyes |

You can insert different headings on this chart to correspond with whatever signs or symptoms that you may display. Important indicators that must be charted include: digestion, bowel function, and energy level. Monitor your weight as it can often increase due to ingesting allergenic food. If you require more space use the back of this sheet and clearly mark the day, the food and your symptoms. If you are unsure if you had a reaction, go back and retest the same food in the same manner.

## Foods Rich in Anti-oxidants and Immune Nutrients

| Anti-oxidant / Immune Nutrient | Fruit | Vegetables | Other Foods |
| :---: | :---: | :---: | :---: |
| Beta Carotene and other carotenoids | Apricots, cantaloupe, mangoes, nectarines, peaches, pink grapefruit, tangerines, watermelon | Asparagus, beets, broccoli, carrots, green peppers, kale, turnips and collard greens, pumpkin, squash, spinach, sweet potato, tomatoes |  |
| Vitamin C | Berries, cantaloupe, grapefruit, honeydew, kiwi, mangoes, nectarines, orange, papaya, strawberries | Broccoli, Brussels sprouts, cauliflower, kale, red, green or yellow pepper, snow peas, sweet potato, tomatoes |  |
| Vitamin E | Mangoes, papaya | Broccoli, carrots, chard, mustard and turnip greens, pumpkin, red peppers, spinach. |  |
| Super foods rich in other anti-oxidants | Prunes, apples, raisins, all berries, plums, red grapes, | sprouts, onions, eggplant | Beans |
| Zinc |  | Peas | Oysters, red meat, poultry, beans, nuts, seafood, whole grains, dairy products |
| Selenium |  |  | Brazil nuts, sunflower seeds, tuna, beef, poultry, grains |
| EGCG |  |  | Green Tea |

## Pantry Shopping List

## Grains/Flours

» Lundberg-short grain, basmati, jasmine, sushi rice, rice pasta, rice cakes
» Texmati-all whole grains and rice cakes
» Shiloh Farms-quinoa, amaranth, millet, teff, and other less common grains
» Harvest Grain-quinoa, quinoa pasta, quinoa flakes
»Eden-100\% buckwheat noodles, udon noodles
» Bob's Red Mills-all flours and oats including gluten free
»Asian Kitchen-Rice and bean thread noodles
» Udi's and Food for life-Gluten free breads
» Mary's Gone Crackers-Gluten free crackers
» Glutino-gluten free breadcrumbs

## Legumes

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» Westbrae-all canned beans
» Eden-all canned beans
» Brad's-all canned beans
»Shiloh Farms-organic dry beans and lentils
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## Oils

» Zoe-other reasonably priced extra virgin first cold pressed oil
» Omega Nutrition-Coconut oil (Extra Virgin and Neutral)
» International Harvest-Coconut Oil
» Spectrum-Sesame, toasted sesame oil and coconut oil
" Purity Farms-Ghee

## Nut Butters

» Once Again-all nut butters
» Brads-almond butter, peanut butter and tahini

## Frozen Berries

» Cascadian Farms-blueberries, strawberries, raspberries, blackberries
» Woodstock Farms-as above

## Vinegar and Soy Sauce

» Bragg's-Apple cider vinegar Liquid amino's
» Spectrum-Apple cider vinegar
» San-J - Tamari, Shoyu

## Non-dairy Milk

»Pacific-organic Vanilla and unsweetened Rice, Almond, Soy and Hemp Milk
» Rice Dream-Organic Rice and Soy Milk
» Whole Foods 365-Organic rice and almond milks
» Asian Kitchen-canned coconut milk

## Sea Vegetables

»Eden-all sea vegetables
» Maine Coast- all sea vegetables

## Sweeteners

» Lundberg-Brown rice syrup
» Madhava-Agave and Coconut sugar
» Wholesome-Succanat

## Vegetable Stock

» Rapunzel-Vegan bouillon cubes
» Pacific-organic vegetable and chicken stocks

