# Migraine Elimination Diet: What to Eat, What to Avoid (food chemicals in parentheses)

Vegetables to Eat		Vegetables to Avoid
All pure, fresh or frozen vegetables and their juices		Avocado (tyramine)
except those listed in the avoid column. Including:		Beets, red (nitrates)
<ul> <li>Acorn Squash</li> </ul>	<ul> <li>Fennel</li> </ul>	Eggplant (histamine, tyramine, nitrites)
<ul> <li>Artichoke</li> </ul>	<ul> <li>Garlic</li> </ul>	Fava or broad beans (tyramine)
Arugula	<ul> <li>Honeydew</li> </ul>	Green peas (tyramine)
<ul> <li>Asparagus</li> </ul>	<ul> <li>Kabocha Squash</li> </ul>	Olives (histamine, tyramine)
Bamboo Shoots	<ul> <li>Kale</li> </ul>	<ul> <li>Onion (none of the known problematic food</li> </ul>
Bell Peppers	<ul> <li>Kelp</li> </ul>	chemicals, but listed in traditional migraine diets)
Bok Choi	<ul><li>Leeks</li></ul>	Potato (tyramine)
Broccoli	<ul> <li>Lettuces</li> </ul>	Pumpkin (histamine)
<ul> <li>Brussels Sprouts</li> </ul>	<ul> <li>Mustard Greens</li> </ul>	Snow peas (tyramine)
Butternut Squash	<ul> <li>Parsnips</li> </ul>	Spinach (histamine, nitrites)
Cabbage	<ul> <li>Radishes</li> </ul>	Sweet potato (tyramine)
<ul> <li>Canary Melon</li> </ul>	<ul> <li>Rutabaga</li> </ul>	<ul> <li>Tomato and all tomato products (histamine,</li> </ul>
Cantaloupe	<ul> <li>Spaghetti Squash</li> </ul>	tyramine, sulfites, nitrites)
Carrots	<ul> <li>Swiss chard</li> </ul>	
<ul> <li>Cauliflower</li> </ul>	<ul> <li>Taro root</li> </ul>	*Many additional vegetables contain nitrates/nitrites, but
Celery	<ul> <li>Water Chestnuts</li> </ul>	excluding them is not necessary to start. See note 1 at
<ul> <li>Collard greens</li> </ul>	<ul> <li>Watercress</li> </ul>	the end of this article for details.
• Corn	<ul> <li>Watermelon</li> </ul>	
Cucumber	<ul> <li>Zucchini</li> </ul>	
Endive	<ul> <li>Any others not on the</li> </ul>	
Escarole	restricted list	

Fruits to Eat	Fruits to Avoid
Fruits to Eat  All pure, fresh or frozen fruit and their juices except those listed in the restricted column. Including:  • Apples  • Coconut  • Figs  • Guava  • Kiwi  • Longans  • Lychees  • Mango  • Passion Fruit  • Pears  • Persimmons  • Pomegranate  • Rhubarb  • Star fruit	<ul> <li>Apricot (histamine)</li> <li>Bananas (tyramine)</li> <li>Cherry (histamine)</li> <li>Citrus—oranges, limes, lemons, grapefruit (histamine)</li> <li>Cranberry (histamine)</li> <li>Currant (histamine)</li> <li>Date (histamine)</li> <li>Grapes (sulfites)</li> <li>Loganberry (histamine)</li> <li>Mulberry (histamine)</li> <li>Nectarine (histamine)</li> <li>Papaya (histamine)</li> <li>Peaches (histamine)</li> <li>Pineapple (histamine)</li> <li>Plums (histamine, tyramine)</li> <li>Prunes (histamine, tyramine, sulfites)</li> <li>Raisins (tyramine, sulfites)</li> <li>Raspberries (histamine, tyramine)</li> </ul>
	Strawberries (histamine)     Any overripe fruit (tyramine)     Any dried fruit that doesn't say sulfite-free (sulfites)

Meat, Fish and Eggs to Eat	Meat, Fish and Eggs to Avoid
Beef (not aged)	<ul> <li>Cured, smoked, aged, processed, canned, or</li> </ul>
• Pork	tenderized meats—like bacon, hot dogs, prosciutto,
Chicken	pepperoni, lunch meat, etc. (histamine, tyramine,
Turkey (white meat may be better than dark)	nitrates)
• Lamb	<ul> <li>Pre-ground meat (if you grind it yourself or have a</li> </ul>
Goat	butcher grind it right before you buy it, ground meat
Eags, only with fully cooked eag white	should be OK) (histamine)

# Meat, Fish and Eggs to Eat (continued)

- All meat should be cooked or frozen within a day of purchasing, cooked leftovers can be frozen.
- Only use ground meat if you grind it yourself or have a butcher do it right before you buy it.
- Slow-cooking methods, like in a Crockpot or ovenroasted should be avoided.
- If grilling, try to minimize char marks.
- Fish that is gutted and cooked within 30 minutes of being caught is fine, but not many of us have access to that! Frozen fish may be OK; it depends on how long it sat before it was gutted and frozen.

# . Meat, Fish and Eggs to Avoid (continued)

- Old or leftover meat—meat should be cooked or frozen within a day of purchasing, cooked leftovers should be frozen immediately (histamine, tyramine)
- Liver from any animal (histamine, tyramine)
- Any game meat (histamine, tyramine)
- All fish and shellfish (histamine)
- · Raw egg white (histamine)

#### Dairy to Eat

- Plain milk (cow, goat, or sheep)
- Cream
- Butter
- Some preparations of ricotta, cream cheese, marscapone, farmer's cheese, paneer, or quark—as long as they have no microbial enzymes, gums, thickeners, or other restricted ingredients
- · Ice cream with no restricted ingredients
- \*Histamine and tyramine can form in as the get older. See note 2 below for details.

# **Dairy to Avoid**

- Any fermented dairy products, like cheese, sour cream, processed cheese, buttermilk, yogurt, kefir (histamine, MSG, tyramine)
- \*Some people report that avoiding all dairy has reduced their migraine frequency. See note 3 below.

# Legumes to Eat

- Chickpeas
- Black Beans
- Navy Beans
- · Pinto Beans
- Lentils (not red)
- Black-eyed peas
- Split peas
- Peanuts
- · Pure peanut butter

#### Leaumes to Avoid

- Soybeans and all soy products (histamine, sulfites)
- Red beans (histamine)
- Fava or broad beans (tyramine)

\*Traditional migraine diets say to avoid all legumes, my dietician said they were OK. If you decided to avoid all legumes, don't forget that peanut butter is a legume.

### **Nuts and Seeds**

Avoid all nuts and seeds. Walnuts and pecans definitely contain tyramine. The tyramine content of the others is debated, but traditional migraine diets recommend avoiding them. Coconut (a nut) and quinoa and amaranth (seeds) are borderline foods—some are fine with them, others are not.

# Grains, Cereals, Bread, Baked Goods to Eat

- Any pure, unbleached flour or grain: wheat, kasha, rye, buckwheat, millet, teff, amaranth, kamut, wheat berries, sorghum, tapioca, spelt, bulgur, barley
- Rice, wild rice
- Corn, popcorn
- Oatmeal, oats (unflavored)
- Pasta from approved ingredients (basic semolina pasta is fine as long as it doesn't have additives)
- Breakfast cereals with allowed ingredients, including all plain grains, oatmeal, corn flakes, shredded wheat, puffed rice, puffed wheat, puffed kamut, cream of rice, cream of wheat
- Baked goods leavened with baking soda: biscuits, quick breads, muffins, scones, soda bread, scones
- Crackers with allowed ingredients (Triscuit-type crackers, water crackers, and some saltines are usually a good bet)
- Small servings of yeast-risen bread products are OK for some people; should not be freshly baked

# Grains, Cereals, Bread, Baked Goods to Eat to Avoid

- Bleached flour (histamine)
- Modified flour (sulfites)
- Modified gluten (sulfites)
- Barley malt (sulfites)
- Any containing restricted ingredients

\*Some people report avoiding gluten has reduced their migraine frequency. See note 4 below.

#### Fats, Oils, and Sauces to Eat Fats, Oils, and Sauces to Avoid Canola Vinegar • Corn • Any fats or oils that contain color and/or preservatives (histamine) • Safflower Soybean oil Sunflower • Margarine • Olive (olives are out, but many people do fine with • Prepared salad dressings with restricted ingredients small amounts of olive oil) · Homemade condiments and relishes using allowed (which are most of them) ingredients Prepared gravies • Prepared condiments and relishes, including ketchup, mustard and sauerkraut (histamine, sulfites, MSG) • Soy sauce (histamine, tyramine, MSG) Teryiaki sauce (tyramine) Most commercial salad dressing (histamine) • Fish sauce (tyramine, MSG)

Herbs, Spices, and Seasonings to Eat		Herbs, Spices, and Seasonings to Avoid
Basil	<ul> <li>Ginger</li> </ul>	Anise (histamine)
Bay leaf	• Mint	Cinnamon (histamine)
<ul> <li>Black pepper</li> </ul>	<ul> <li>Oregano</li> </ul>	Cloves (histamine)
<ul> <li>Caraway</li> </ul>	<ul> <li>Parsley</li> </ul>	Curry powder (histamine)
<ul> <li>Cardamom</li> </ul>	<ul> <li>Poppy seed</li> </ul>	Hot paprika (histamine)
<ul> <li>Celery seeds</li> </ul>	<ul> <li>Rosemary</li> </ul>	Nutmeg (histamine)
Chives	• Sage	<ul> <li>Prepared foods labeled "with spices" (histamine,</li> </ul>
<ul> <li>Coriander</li> </ul>	Savory	MSG)
Cumin	Thyme	
• Dill	Turmeric	

Sweets to Eat	Sweets to Avoid
Sugar	All chocolate and cocoa (histamine)
Honey	Flavored gelatin (histamine)
<ul> <li>Stevia (with no additives, the only one I've found is</li> </ul>	Artificial sweeteners (histamine)
Whole Foods brand)	Flavored syrups (histamine)
Molasses	Prepared desert fillings (histamine)
Maple syrup (real)	Prepared icings, frostings (histamine)
Molasses	Spreads with restricted ingredients (histamine)
Corn syrup	Cake decorations (histamine)
Pure jams, jellies, marmalades, conserves made with allowed ingredients	Commercial candies (histamine)
Homemade sweets and baked goods with allowed ingredients	

Miscellaneous to Eat	Miscellaneous to Avoid
Baking powder	Mincemeat (histamine)
Baking soda	Miso (histamine, tyramine)
Cream of tartar	Pickles (histamine, tyramine, sulfites, nitrites, MSG)
Plain gelatin	<ul> <li>Anything fermented (histamine, tyramine)</li> </ul>
<ul> <li>Homemade relishes and sauces with allowed</li> </ul>	Coleslaw (nitrates, sulfites)
ingredients	Sauerkraut (histamine, tyramine)

Drinks to Have	Drinks to Avoid
Water	<ul> <li>Fruit juices and cocktails made with restricted</li> </ul>
Mineral water	ingredients (histamine)
Juice from allowed fruits, vegetables     Homemade ginger ale	<ul> <li>Carbonated beverages other than mineral water (histamine)</li> </ul>
Tiomemade ginger ale	Soda (caffeine, sulfites, histamine)

#### Drinks to Have (continued)

- Coffee (limit to one cup a day if caffeinated; if decaf, make sure it is decaffeinated using a water process rather than chemicals – chemical decaffeination is the norm, The Coffee Bean is the only large chain I know of that uses a water process for decaf)
- Herbal tea made from allowed herbs and spices (ginger and peppermint are the most common, holy basil is another option, chamomile should be fine)
- Plain vodka, gin or white rum are the least problematic alcoholic beverages, but any alcohol can be a trigger; it's best to avoid all alcohol to get the best information from your elimination diet

#### **Drinks to Avoid** (continued)

- Coffee (caffeine): decaf OK only if decaffeinated without chemicals
- Tea: black, green, or white, even decaffeinated (histamine, caffeine)
- All drinks with "flavor" or "spices" (histamine, MSG)
- Fermented beverages (histamine, tyramine)
- All alcohol (histamine, tyramine, sulfites)

### **Additives to Avoid**

Avoid prepared foods with any of these ingredients (you may find it easiest to avoid prepared foods altogether):

- · Artificial colors (histamine, MSG)
- · Artificial flavors (histamine, MSG)
- Benzoyl peroxide (used to bleach wheat) (histamine)
- BHA (histamine)
- BHT (histamine)
- Calcium hydrogen sulfite (sulfite)
- Calcium sulfite (sulfite)
- Guar gum (MSG)
- Hydrolyzed lecithin (histamine)
- Microbial cultures (histamine)
- Microbial enzymes (histamine)
- MSG: MSG hides under more than 40 different names! For a complete list, check: http://www.truthinlabeling.org/hiddensources.html

- Potassium hydrogen sulfite (sulfite)
- Potassium meatbisulfite (sulfite)
- Potassium sulfite (sulfite)
- Preservatives (histamine, MSG)
- Sodium bisulfite (sulfite)
- Sodium hydrogen sulfite (sulfite)
- Sodium meatbisulfite (sulfite)
- Sodium sulfie (sulfite)
- Sulfite ammonia caramel (sulfite)
- Sulfur dioxide (sulfite)
- Yeast, yeast extract, brewer's yeast, nutritional yeast (tyramine, MSG)

### NOTES:

Food chemicals are included in parentheses so you can choose which chemicals you want to avoid. You can do the comprehensive diet or pick and choose. Histamine and tyramine should always be eliminated together.

- 1. There is debate about whether excluding vegetables that are high in nitrates or nitrites from one's diet is necessary, partly because the nitrate/nitrite content can vary widely depending on varietal and growing and soil conditions. Even reliable sources have dramatic differences in their lists of foods high in nitrates/nitrites, resulting in an overwhelming list. I have included the vegetables with the highest levels in the list above. Other possible high nitrate/nitrite vegetables include: arugula, bok choi, chervil, celery, celeriac (celery root), cress, cucumber, endive, fennel, green beans, kohlrabi, leeks, lettuce, lima beans, melon, parsley. To keep a nutritionally balanced diet, I do not recommend attempting to restrict these vegetables in your first elimination diet. If you decide to restrict them in the future, please work with a dietician to make sure you do not become malnourished.
- 2. Like with meat, histamine and tyramine can form in dairy the longer it sits. I buy milk and dairy that's as fresh as possible and try to use it within a few days of opening it.
- 3. Dairy doesn't appear on the traditional migraine diet lists, nor does it contain any of the food chemicals to avoid, but some people still finding reducing dairy has been effective in reducing their migraine frequency. Since the list is restrictive enough, I recommend trying the diet with dairy first. Another option would be to eliminate dairy and gluten first before instituting the rest of the diet.
- 4. Some people report that their migraine frequency lessened after removing gluten from their diets. As with dairy, I recommend either trying the diet with gluten products first or cutting out gluten and dairy before doing trying the rest of the diet. Here's more information on gluten and migraine, including links to comprehensive lists of foods that contain gluten: <a href="http://migraine.com/blog/gluten-sensitivity-and-migraines/">http://migraine.com/blog/gluten-sensitivity-and-migraines/</a>

(food list version 3, 3/1/15)