

Sweeteners

I have a great concern about the overuse of refined sugar, corn syrup, and similar highly refined simple carbohydrate sweeteners. Over consumption of refined sugar crowds out an appetite for wholesome and nourishing foods. This has led to serious malnutrition in a nation of obesity. Refined sugars flood the bloodstream with instant and short-lived “energy”, which then plummets to low, fatiguing levels of blood sugar. The skyrocketing levels of Type II Diabetes are blamed on our huge consumption of simple sugars. And finally, dental caries barely exists in societies where the only sugars consumed are “gifts from nature”, such as honey and raw sugarcane stalks. The average American consumes 139 lbs of refined sugar every year. That is more than two pounds per week. Most of us started off with mother’s milk, which is very sweet...which helps to explain the “sweet tooth” most of us seem to have. As long as we pay attention to quality and quantity, having a yearning for sweet is not problematic.

Sweeteners/sugars are either simple carbohydrates or complex carbohydrates. Simple carbs (the more refined sugars which are also nutrient poor) are quickly absorbed into the bloodstream, causing the pancreas to crank out insulin to whisk away the excess, resulting very quickly in low blood sugar/fatigue. I prefer sweetening with complex carbs (such as barley malt and brown rice syrup) which are absorbed into the bloodstream at a slower more moderate pace. Sustained energy levels and nourishment are the result of complex carb consumption. If I could eradicate one item from the American diet, it would be artificial sweeteners. They are devoid of nutrients, falsely promise weight loss, and are a concoction of chemicals that the body is not designed to digest.

- **Stevia** - Stevia is a wonderful addition to the American diet. *Stevia rebaudiana* originates from Paraguay, has no calories, is an excellent alternative for diabetics and others who have blood sugar irregularities because it does not affect blood sugar levels at all, and does not promote dental caries.
- **Honey** - Honey is a simple carb, with a few more nutrients than refined sugar, and should be used sparingly. Some people with allergies find benefit from eating local honey which contains small amounts of local pollen.
- **Molasses** - Black strap molasses is rich in minerals, especially iron and calcium. It has a deliciously bitter taste to it, but because of its very strong flavor, is not used as a sweetening agent in many recipes. It is great drizzled in oatmeal. I take a tablespoon of blackstrap molasses with a few sunflower seeds every morning for an iron boost.
- **maple syrup** - Maple syrup is a simple carb...so it has an immediate effect on the blood sugar levels. It should be consumed sparingly and organically, to avoid the contamination of formaldehyde which is used in the extraction process.
- **Brown rice syrup** - Brown rice syrup is a complex carb, and is slowly absorbed in the bloodstream. It has a butterscotch-type flavor and is an excellent sweetener in baked goods. It is an excellent alternative to refined sugar.

- **Amasake** - Amasake is a thick, almost creamy pudding liquid made from sweet rice and koji, the fermenting catalyst in Japanese foods such as miso, sake, soy sauce, etc. The carbohydrate/sugar is more complex than honey, sugar or maple syrup. Because it is pre-digested, it is a great source of energy since it doesn't require energy to digest, and it is nutrient dense. ...a great athletic performance boost.
- **Barley rice syrup** - Barley malt syrup is also a more complex carbohydrate for sustained blood sugar levels. It has a gentle, light, sweetness and is a lovely substitute for corn syrup in pecan pie or drizzled on pancakes instead of maple syrup.
- **Date sugar** - Date sugar, if consumed in excess, will affect the blood sugar levels as white sugar. However, it is unrefined (made purely from dehydrated dates), and is nourishing. It is used primarily as a topping for breakfast cereals, atop baked goods after baking, and sprinkled on yoghurt, etc.
- **Agave nectar** - I have not had the pleasure to taste agave nectar, but I have heard that it has a very pleasant and sweet flavor. Native American Indians have used agave in various forms medicinally and the nectar is high in calcium. It would be an excellent sweetener.
- **FruitSource** - This sweetener is made with grape juice concentrate and brown rice syrup. It is a better choice than refined white sugar, but must be used in moderation.

Individual palates are the determining factor with baking and sweetening drinks. Generally speaking with regard to baking, liquid sweeteners replacing dry sweeteners necessitate addition of more flour in the recipe. Stevia is excellent for sweetening coffee and tea, as it does not overpower the subtle flavors of tea or impose on the flavor of the coffee and can also be used in baking.

Diabetics, of necessity, should introduce complex carbohydrates and other wholesome foods heavily into their daily diets...and eliminate simple carbohydrates. This is easily said, I know. But it can be successful, taken one step at a time, slowly decreasing amounts of sweets, until the palate truly enjoys the tastes of wholesome foods. At that point, a piece of whole grain bread is deliciously sweet with nothing added. Of the sweeteners listed, stevia is by far the best for diabetics, but any of the other complex carb sweeteners (barley malt syrup, brown rice syrup) could be used in moderation.

We would ALL benefit from using the more natural, "close to nature" sweeteners in moderation.

Artificial sweeteners should never be used by anyone.

There is a political controversy regarding stevia. The sugar industry would be adversely affected by the introduction of stevia as a food. It is a superior and healthful alternative to refined white sugar and would most likely seriously challenge the refined sugar industry. As a result of this controversy, stevia can only be termed a food supplement, not a sweetener.

LABELS: How to Know What You are *REALLY* Eating

The **Nutrition Facts** label and the Ingredient label are present on all packaged/canned/frozen foods. Both labels are important and, for optimum understanding of nutrient content, are analyzed together. The Nutrition Facts label defines quantity and the Ingredient label defines quality.

The **Nutrition Facts** label contains information regarding the approximate amounts of various components of the specified food. Serving size and servings per container are stated first. The number of calories per serving and calories from fat are listed next. The section immediately following lists (in grams) total fat, saturated fat, cholesterol (mgs), sodium (mgs), total carbohydrate, dietary fiber, sugars, sodium, and protein contained in each serving. Various micronutrients (vitamins and minerals) are listed beneath the macronutrients, including calcium. The information on the Nutrition Fact label is most useful for product comparison and not necessarily intended for individual requirement calculation. The two exceptions to this would be the sodium and calcium content of the product. In addition, Percent Daily Value (a set of standard nutrient-intake values developed by the FDA and used as a reference for expressing nutrient content on nutrition labels) is calculated on the label, which is based on a 2,000 calorie diet.

ACTIVITY

1. Select a Nutrition Fact label. Relate the number of calories with the serving size. Often the stated serving size is small, with a corresponding low calorie advertisement. For example, a product may advertise “only 50 calories per serving”, but the serving size is $\frac{1}{4}$ of the candy bar, not the entire bar.
2. Select two Nutrition Fact labels of similar products, such as crackers or cookies. Compare the categories of total fat, saturated fat, cholesterol, and sugar. Note that when a product advertises low fat, it is often high sugar.

The **Ingredient** label contains information regarding the actual contents of the specified food. For example, the Nutrition Fact label may state that total fat is 4%, but the ingredient label will specify which fat/oil the food contains (eg., olive oil, cottonseed oil, or partially hydrogenated sunflower oil). Being mindful of health, one would choose a product with monounsaturated fat/oil. (The amount of trans fat is usually not listed on the food label. Trans fat can be calculated. Subtract the total grams of polyunsaturated fat and monounsaturated fat from the grams of total fat. The number remaining is the approximate amount of trans fat. Trans fats have been hydrogenated and during this process the oils seem to acquire the health-threatening properties of saturated fats.) Another example where the ingredient label clarifies quality involves the carbohydrate contents. If the Nutrition Facts label lists total carbohydrates as 42 grams, one can glance at the Ingredient label and determine whether the carbohydrate is derived from white flour or a more health promoting grain, such as quinoa, spelt, brown rice or amaranth.

The **Ingredient** label alerts the consumer about food additives and animal products, many of which are of concern. A food additive is a substance added to food during its processing to preserve it or improve its color, texture, flavor, or value. Additives also include substances that may become components of the food indirectly, such as cereal packaging paper, if the cereal absorbs even a small amount of the material. Flavoring agents make up the largest single class of additives and include salts, spices, essential oils, and natural and synthetic flavors. Additives that improve texture include emulsifiers, stabilizers, and thickeners. The additives used to preserve food are primarily chemical microbial agents (benzoates, propionates and sorbates). Antioxidants are added to foods to prevent fats and oils from becoming rancid and to prevent discoloration of smoked or canned meats. Many additives are beneficial. Antioxidants, such as vitamin E (tocopherols), retinoids (vitamin A) and ascorbic acid (vitamin C) help retard spoilage.

Great controversy exists concerning the safety of some additives, despite approval by the Federal Drug Administration. Below is a list of some of these controversial additives

FD&C Red #3 (causes thyroid cancer in rats, banned in cosmetics, but used in maraschino cherries and pistachio nuts)

FD&C Yellow #5 (tartrazine, one of the most widely used food colors, added to many yellow-colored foods such as spaghetti, puddings, gelatin, soft drink, sherbets, ice cream, cereals and candy, food, and many drugs, including some antihistamines, antibiotics, steroids, and sedatives; a known inducer of asthma, hives and other allergic conditions, particularly in children)

Saccharin (pink Sweet 'N Low, known cancer-causing compound in rats when administered over two generations. affects on humans will be observed in future generations)

Aspartame (Equal and NutraSweet, sensitivity in some people, including symptoms of seizures, migraine headaches, hives, disturbance in nerve function, dizziness)

BHA and BHT (preservatives/antioxidants, evidence of causing cancer, added to packaging of many cereals)

Nitrates/Nitrites (known cancer-causing compound, added to most cold cuts and hotdogs), Sulfites (allergic reactions, sprayed on lettuces at salad bars to reduce wilting), Benzoates/Benzoic Acid (allergic reactions and most commonly used food preservatives)

Phosphoric Compounds (phosphoric, acid, calcium phosphate, sodium phosphate, all of which, in excess, can disturb the body's ability to absorb calcium, found in soft drinks)

Bromates (potassium bromate, kidney tumors in rats, found in flours, breads)

The best way to approach the dilemma of food additives is to begin a nutrition lifestyle which focuses on wholesome foods which include fresh vegetables/fruits, whole grains, nuts, seeds, beans/legumes, and range-fed animals. By adopting this lifestyle, few packaged and processed foods are purchased, and few additives are consumed.

An additional step is to consider the purchase of organic produce and meat.

ACTIVITY

Choose another label from your home pantry (bread, cracker or cookie). Determine from the ingredient label any additives which may be harmful to health. Find an alternative and healthier version of that product at the grocery store by comparing ingredient labels.

Organic

In addition to the additives contained in food, there are many other chemicals that become part of our food during the stages of propagation, harvesting, etc. Sprays and pesticides are included in this group. Some research indicates that there may be health risks from ingesting pesticides.

Research is not clear, but it is logical to assume that pesticides can be harmful to health.

(Consumer Reports article "How Safe is Our Produce?" and follow-up article Consumer Reports September 2000 "Produce safety: New data on pesticide levels")

. Exposure to pesticides can be reduced by 50% if an individual chooses to select fewer of these fruits and vegetables, or to buy them organically.

RULE OF THUMB If the ingredient list is more than two lines, either return the product to the shelf, or read the label **VERY CLOSELY**. The more ingredients there are, the more likely the product will contain additives which may compromise health.

Mix and Match Vegetarian Dishes

- **Grains:** brown rice, quinoa, kamut, barley
- **Herbs:** oregano, basil, dill, tarragon, curry, cumin, chili powder, thyme, dill, rosemary or any favorite herb
- **Vegetables:** broccoli, cauliflower, carrots, onion, sweet pepper, spinach, kale, mushroom, like, corn, potato, asparagus, snow peas, etc.
- **Beans/Legumes:** navy, kidney, black, garbanzo/chickpea, lima, lentil, pinto, adzuki
- **Nuts/Seeds:** sesame, sunflower, pumpkin, almonds, cashews, walnuts, pecans

Directions:

Pre-cook a grain (brown the grain in a dry/unoiled cast-iron fry pan for a few minutes on med/high until slightly browned and aromatic, transfer to a pot with lid containing approximately twice the water volume of the grain and cook until done...times vary)

Select a grain (pre-cooked), several herbs of choice, as many vegetables as you like, beans (canned/pre-cooked), and one or two nuts and seeds. In a medium hot skillet (preferably cast-iron) heat up 1-2 tablespoons olive oil (an additional drizzle of sesame oil is delicious), add herbs and allow to lightly bubble in the oil for a minute, add vegetables and cook until tender crisp, add beans, nuts, seeds, and cooked grain. Season to taste with salt if desired. Serve.

The Dirty Dozen

There are health risks from ingesting pesticides in produce.

The twelve most contaminated fruits and vegetables are:

- Strawberries
- Bell peppers (both red and green)
- Spinach
- Cherries
- Peaches
- Mexican cantaloupes
- Celery
- Apples
- Apricots
- Green beans
- Chilean grapes
- Cucumbers

This is determined by the Environmental Working Group in Washington, D.C., which reports periodically on pesticide health risks. Exposure to pesticides can be reduced by 50% if an individual chooses to select fewer of these fruits and vegetables, or to buy them organically.

Nutrition Resources: Books and Journals/Magazines

- The Splendid Grain Rebecca Wood (a guide to grains)
 - The Whole Foods Encyclopedia Rebecca Wood (a comprehensive guide to food)
 - Fast Food Nation Eric Schlosser (excellent research on the fast food industry)
 - If the Buddha Came to Dinner: How to Nourish Your Body to Awaken Your Spirit
Hale Sofia Schatz
 - The Stevia Cookbook Ray Sahelian, MD and Donna Gates
 - Food as Medicine Dharma Singh Khalsa, MD
 - Eight Weeks to Optimum Health Andrew Weil, MD
 - Eating Well for Optimum Health Andrew Weil, MD
 - Food Politics Marion Nestle (food industry vs politics)
 - Women's Bodies, Women's Wisdom Christian Northrup, MD
 - Nourishing Traditions: The Cookbook that Challenges Politically Correct Nutrition and the Diet Dictocrats Sally Fallon
 - Becoming Vegetarian Melina, Davis and Harrison
 - Becoming Vegan Melina and Davis
 - Coming Home to Eat Gary Paul Nabhan (eating locally)
 - Fat Land: How Americans Became the Fattest People in the World Greg Critser
 - Staying Healthy with Nutrition Elson M. Haas, MD
 - Staying Healthy with the Seasons Elson M. Haas, MD
 - Diet for a New America John Robbins
 - Reclaiming Your Health John Robbins
 - Local Flavors Deborah Madison (America's Farmers Markets)
 - Is This Your Child? Doris Rapp, MD
 - Smart Medicine for a Healthier Child Zand, Walton, and Rountree
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- "Nutrition Action" Health Letter published by Center for Science in the Public Interest
www.cspinet.org

Organic and Healthy Food/Products Websites

www.drweil.com Dr. Weil's Website

www.ota.com The Organic Trade Association

www.ams.usda.gov/nop National Organic Program

www.ofrf.org Organic Farming Research Foundation

www.theorganicreport.org The Organic Report

www.allorganiclinks.com

<http://www.vitalchoice.com> Dr. Weil recommended Alaskan Salmon

<http://jama.ama-assn.org/cgi/content/abstract/291/10/1238> article on four leading causes of death: tobacco, poor diet, no exercise, alcohol

www.smart-mouth.org Children's healthy eating website

www.tedsorganicgrains.com On-line ordering whole grains

<http://www.gristmagazine.com/muck/muck051804.asp>

www.plugintorecycling.org Environmental Protection Agency

www.PETA.org Vegan

<http://www.slowfoodusa.org>

www.cspinet.org Center for Science in the Public Interest ("Nutrition Action")