## FACTS ON REFINED SUGAR AND LABEL READING

There is evidence that refined sugar contributes to tooth decay, obesity, nutrient deficiencies, and hypoglycemia. It appears to play a role in increasing total cholesterol levels, decreasing HDL (good cholesterol) levels and in the development of diabetes. Refined sugars, along with chemical additives such as artificial colors and flavors are also suspected of causing behavioral problems in children.

Various studies in public schools have demonstrated that classroom performance has improved when junk food was taken out of their school lunch program.

According to figures from the U.S. Department of Agriculture (USDA), consumption of various sweeteners, often in calorie-dense foods and drinks, has risen in the United States from an estimated 113 pounds per person in 1966 to 147 pounds in 2001.

Sugar affects people in different ways. Sugar provides empty (non-nutritive) calories. In the refining process, it is stripped of all its vitamins and minerals. Then, after consuming it, we must use some of these very nutrients to metabolize it. Because it is so addictive and so available it is not easy to remove from our diets. Refined sugar shows up in so many foods on the supermarket shelf – foods like spaghetti sauce, salad dressing, crackers, breads, canned soups and vegetables. It is EVERYWHERE.

Refined sugar is often responsible for many common chronic complaints. If you remove it from your diet for just 2-3 weeks, you may be amazed to find that some of your long-standing symptoms will disappear. Energy, joint or muscle pains may improve, headaches may disappear, you may sleep better, and your stomach may no longer rumble and bloat.

To make it more complicated, food processors try to mask the total amount of refined sugars in their products by using a variety of added sugars with different names. Some examples of these are high fructose corn syrup, dextrose, honey, glucose, sucrose, sorbitol, and brown sugar. It is difficult to calculate the total amount of added sugars eaten because food labels include both naturally occurring sugars and added sugars. For example, the label claim on a container of plain yogurt (which has NO ADDED SUGAR) may show a total of 17 grams of carbohydrate, with 16 grams sugar. Regulations require that labels show all refined sugars in a product lumped together, not just the added sugar. But generally speaking, it is the added refined sugars that cause the most problems. In this example, the naturally occurring sugar in yogurt is lactose, which does not affect the body the way that most refined sugars may.

People do want to sweeten their foods though, and there are good and bad choices. Many alternative sweeteners are available. Which is best is a complicated question. Generally an added sweetener that has a "low glycemic index" – one that does not cause a spike in blood sugar--is preferable. One favorite is brown rice syrup. It is thought that the glucose from this sweetener is released into the blood stream more slowly than that from white sugar for example. Barley malt syrup is similar and has more B vitamins and trace minerals, but has a stronger flavor. Another good sweetener is agave nectar which has been proven to have a very low glycemic index. While molasses is more refined, blackstrap molasses does have a significant amount of iron, calcium, potassium and B vitamins. Mystic Lake Dairy fruit sweetener is another natural sweetener made from mixed fruit concentrate of pineapple, peach and pear, with the consistency of honey. Fruit concentrates still contain many nutrients and are comprised mostly of fructose. More recently, stevia, a powdered herbal sweetener that has no affect on blood sugar and is many times sweeter than white sugar, is becoming a popular replacement for aspartame (Nutra Sweet) or sucralose (Splenda). Fructose, while it is a refined sugar, can sometimes be a good alternative as an added sweetener as well because it also has a very low glycemic index. Fructose is sometimes confused with high fructose corn syrup (HFCS), an ingredient in much of the processed foods and soda pop Americans ingest daily. HFCS is a thick liquid made from corn starch, consisting of 42-55% fructose and the remainder glucose. Therefore it has a much higher glycemic index than fructose alone and is not a preferred added sweetener. All the preferred sweeteners mentioned place less stress on the body's glucose/insulin balancing mechanism.

## Hints to keep refined added sugars to a minimum:

1. Ingredients are listed by weight in descending order. Unless low glycemic index, such as fructose or agave, sweeteners should never be one of the first ingredients. They should be listed toward the end in the list of ingredients. If they appear near the beginning of the list, that food probably should be avoided.

2. The following are different names for sweeteners as they appear on the label, e.g., high fructose corn syrup, fructose, maple syrup, brown rice syrup, barley malt, dextrose, glucose, molasses, sorbitol, evaporated cane juice, honey, brown sugar. A product may contain more than one kind of sugar. When making choices, choose lower glycemic index and/or naturally occurring sweets over refined sweets, e.g., fruit juice or fruit, pure maple syrup, brown rice syrup, fructose, barley malt, stevia (an herb), agave nectar, or date sugar.

3. Use of artificial sweeteners, including NutraSweet, Splenda, Acesulfame, and Sweet N'Low can disrupt the body's ability to gauge calories and lead to overeating. There have been allergic reactions associated with the use of these sweeteners. Use of artificial sweeteners also encourages our taste buds to desire more foods with a very sweet taste. Stevia is a sweet tasting herb and is a healthier alternative but should be used in moderation.