



ABUNDANT *Living*

THROUGH GOOD HEALTH

SUGAR: BAD AND GOOD

Many people will admit to having a "sweet tooth", but few seem to realize just how much refined sugar they actually eat. Statistics show that, in spite of the increasing popular awareness of health and fitness, sugar consumption has increased dramatically over the last thirty years. The average American eats 150 pounds per year -- over six and a half ounces every day!

With this issue we will examine the dangers of refined sugar and discuss a number of tasty, healthful alternatives to satisfy the sweet tooth.

REFINED SUGARS WIDELY USED

Altered sugar is found in almost all packaged, canned and processed foods. In fact, three fourths of the sugar we consume is hidden in prepared foods. Corn sweeteners, dextrose, fructose, corn syrup or sucrose now account for a large percentage of the refined sweeteners in the American diet.

Sugar can be found in some unexpected places. While everyone knows that candy has a lot of it, few realize that two tablespoons of ketchup contain more than a teaspoon of sugar. The Coffee-Mate or Cremora used to cut down on cholesterol are about 60 percent sugar. And the frozen yogurt so popular among dieters actually contains just as many calories as vanilla ice cream because of the large amount of sugar used to give it its appealing taste and texture.

The average American diet which contained more than twice as much complex carbohydrates as sugar in 1910 now contains more sugar than starch. In fact, according to researchers at Georgetown University, 25 percent of the calories adults consume are from sugar; for children it's closer to 50 percent.

SUGAR AND YOUR HEALTH

Dr. Yudkin, Professor Emeritus of Nutrition at London University, in his book, Sweet and Dangerous: "...if only a small fraction of what is already known about the effects of sugar were to be revealed in relation to any other material used as a food additive, that material would promptly be banned."

Dr. Robert Adkins, a best-selling author and prominent nutrition doctor in Chicago, says that consumption of sugar-laden foods is the root of the "20th century epidemics" of heart disease, arthritis, diabetes and many other ailments. Other nutritionists maintain that perhaps 90% of present-day illnesses of the heart, arteries, liver, skin, muscles, blood, kidneys, pancreas, nerves, and ovaries would disappear within a year if white sugar were removed from our food.

Many investigators have implicated white sugar in such ailments as blood chemistry disorders, arteriosclerosis, peptic ulcers, acne, varicose veins, hemorrhoids, appendicitis, cholecystitis (inflammation of the gall bladder), pyorrhea and periodontal diseases, kidney damage, nearsightedness, indigestion, anemia,

tuberculosis, cancer, high blood pressure, allergies, otitis media (inflammation of middle ear), and chronic fatigue.

Horace Graham, author of The Causes, Ecology and Prevention of Traffic Accidents, even contends that many unexplained accidents are caused by excessive sugar in the bloodstream causing a person to become sleepy, dizzy, or even black out completely. He estimates "that one person in 20 has faulty sugar metabolism and can be considered a potential victim of an accident due directly to an abnormal blood sugar level."

SUGAR AND YOUR HEART

Back in 1957, Dr. Yudkin conducted a little-known study, based on data gathered from fifteen different countries, which clearly shows a direct relationship between sugar consumption and coronary disease death rates: Where sugar consumption is low (about 20 pounds per person per year) the death rate from heart disease is about 60 persons per 1,000,000; where sugar consumption is approximately 150 pounds per person per year (as in the United States), the coronary death rate increases dramatically to 750 per 1,000,000.

Why is this?

Sugar changes the behavior of blood platelets, causing them to stick to the blood vessel wall, thereby contributing to heart attacks. Also, according to a study reported in the "American Journal of Clinical Nutrition," the consumption of large amounts of sucrose apparently can increase blood lipids that are considered to be risk factors in heart disease. In 1974 researchers at the University of Minnesota substituted 500 calories worth of vegetables for 500 calories worth of sugar in the diets of healthy adults and found cholesterol levels dropped. This is because the storage of excess dietary sucrose takes place in the liver, which is the organ responsible for the synthesis of cholesterol by the body.

SUGAR AND YOUR TEETH

The most commonly recognized health problem associated with sugar is that of tooth decay, resulting in nearly \$5 billion a year in U.S. dental bills.

Dr. Weston Price, dental researcher and



"Eat your rice! Think of the millions of Americans eating nothing but junk food!"

anthropologist, analyzed natives in Switzerland, Scotland, Outer Hebrides, Alaska, Canada, Fiji Islands, Samoa, and Africa. His studies concluded that eating natural, fresh, whole foods provided almost total protection from tooth decay. In contrast, the introduction of refined sweets quickly led to tooth decay. The primitive diet rich in vitamins and minerals also offered other dental health benefits, such as lack of gum disease and perfect arrangement and spacing of teeth.

In the 1950's Dr. Max-Henri Beguin, a pediatrician from La Chaux-de-Fonds, Switzerland, became alarmed at the changes he saw occurring in the health of his patients, including an epidemic of dental caries. After years of study he concluded in his book Aliments Naturels et Dents Saines (Natural Foods, Healthy Teeth): "Historically and geographically, the increase of tooth decay corresponds to the consumption of refined foods, sugar and flours, foods which have been deprived of the mineral salts and vitamins contained in wholesome, natural products."

HOW AND WHY DOES REFINED SUGAR CAUSE PROBLEMS?

Granted the body needs sugar for energy, but the important thing is the QUALITY of that sugar! Because refined sugar lacks vitamins, minerals and fiber, the human body depletes its own store of minerals and co-enzymes in order to metabolize it properly. As a result:

- 1) Calcium is taken from the bones and teeth, weakening them.
- 2) The normal pH balance of the body is upset, promoting an acid environment in which

friendly bacteria in the intestines cannot survive. Since these bacteria are important in manufacturing vitamins, any body function may be impaired.

3) The balance of calcium and phosphorus in the bloodstream is upset which can cause nervousness, uncooperativeness, anxiety, and hyperactivity. The body takes up to six days to correct this imbalance, even if no more sugar is consumed.

4) The body is robbed of vital B-vitamins. Lack of B-vitamins has been clearly implicated in Chronic Fatigue Syndrome (see Winter 1991 issue of Abundant Living Through Good Health).

5) Nutritionist Richard A. Anderson, of the U.S. Department of Agriculture, along with other workers at the Beltsville, Maryland Human Nutrition Research Center and the Food and Drug Administration in Washington, noted that a marginal deficiency in the essential trace element chromium may be contributing to certain diseases, such as maturity-onset diabetes and cardiovascular disease.

ARTIFICIAL SWEETENERS

Many artificial sweeteners such as sorbitol, mannitol, and saccharin, have been found to have side effects of one sort or another.

In 1981, Aspartame, which is called Nutra Sweet when used as a food additive, and Equal when packaged for table use, was approved for use in the U.S. It is 180 times sweeter than sugar, with one-tenth the calories.

However, many scientists and doctors are very concerned about the safety of aspartame, and report more and more adverse reactions from its use. The Food and Drug Administration has received thousands of complaints and reports of people having adverse reactions. At a press conference in July 1986, Dr. H. J. Roberts expressed strong concern about aspartame. He stated that the sweetener is "probably an imminent public health hazard, and may cause serious medical problems in people who consume even a small amount."

ARE ALL SUGARS THE SAME?

Some health experts paint all sweeteners with the same brush. After all, honey, maple syrup, etc. all break down into the same sucrose, fructose and glucose as refined sweeteners. They admit that natural sweeteners do contain vitamins, minerals, and trace elements, but they "are not a major source of these nutrients."

On the face of it, these arguments may sound logical, but are they? Common white sugar is chemically pure, containing virtually no vitamins or mineral salts. But as Dr. Royal Lee points out in the Journal of the American Academy of Applied Nutrition, "Refining a product has destroyed its natural balanced nutritive values, so some of its functions as a food have been lost." When a food is refined for use as a sweetener, all synergistic factors for the utilization are removed.

Even so-called "raw" sugar is produced after most of the refining process is already complete, and it is at least 96% sucrose. Therefore, "raw", "turbinado", or "yellow-D" sugar is only barely more nutritious than white sugar. Brown sugar is white sugar which has been colored with a small amount of molasses.

To illustrate the contrast between refined and natural sugars, studies have shown that test animals die in a few days when fed a diet of refined sugar and dried hamburger, whereas control animals got along fine for indefinite periods on unrefined sugar and the same dried hamburger.

THE GOOD SUGAR

Unrefined or natural sugars, like whole sugar cane or honey, contain the vitamins, minerals and enzymes needed for digestion and proper metabolism. Children who eat raw sugar cane enjoy perfect teeth. Raw cane contains minerals and vitamins that actually prevent decay.

Another excellent sweetener, one that may not be so familiar, is called Sucanat (from Sugar Cane Natural). Sucanat is made from fresh cut, organically grown sugar cane. Nothing is added to or removed from the sugar cane, except water and fiber. As a result, Sucanat is not a chemical, like refined sugar; it is a food. It has a more distinctive, full flavor than white sugar.

Honey carries the vitamins and minerals required for metabolism and utilization. Thanks to the bees, it is a predigested food, ready for assimilation by the body. The minerals in honey include iron, copper, phosphorus, silica, calcium, magnesium, potassium and sodium. It also contains a vitamins B1, B2, B3, B6, pantothenic acid, vitamin C, and vitamin K. The dextrose in honey is absorbed almost immediately into the bloodstream, while the levulose is absorbed much more slowly. This means that honey helps the body maintain normal blood sugar levels instead of causing a "sugar rush." (One word of caution: Be sure to buy raw, natural honey, not the type

that has had the nutrition cooked and filtered out of it.)

Two other natural sweeteners are rice bran syrup, and pure, genuine maple syrup.

We hope this information has convinced you to cut back on your refined sugar consumption wherever possible, and to, instead, replace the refined and artificial sugars with natural ones which benefit your body.

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**CRAVING A CANDY BAR ?
TRY CHROMIUM !**

Do powerful cravings for sweets sabotage your attempts to lose weight? Lack of the mineral chromium could be to blame. According to Robert M. Giller, M.D., author of *Maximum Metabolism* (Berkeley Press), "People with strong cravings for sweets may have depleted chromium stores. Chromium helps your body stabilize blood-sugar levels and make better use of insulin," thereby diminishing your urge to dive into sugary desserts. Chromium also promotes muscle growth and decreases body fat - another plus for people trying to reduce. Gary W. Evans, Ph.D., professor of chemistry at Bemidji State University in Minnesota, found that athletes who took chromium supplements increased muscle while they decreased body fat and lost weight. Consult your nutritionalist for proper use and type of chromium.