

Blackbird Clinic PLLC: Health Article

Refined Carbohydrates

The CONS of Refined Carbohydrates:

When carbohydrates are refined, nearly all of the vitamins, minerals and fibers are removed, leaving only calories. Certain products like white flour and sugars are refined and then "enriched" meaning that only certain nutrients removed in the refining process are added back into the product. In white flour, the kernel of the grain is processed to remove the germ portion. This removes about 33 nutrients. "Enriching" adds 4-6 nutrients back into the product. This creates the nutritive deficit. White flour is literally a sugar in itself, and where it is mixed with fats in processed foods, the fats are commonly hydrogenated, increasing your susceptibility to a number of disease processes.

White flour contains only 13% of the chromium, 9% of the manganese and 19% of the iron that is contained in whole wheat. Due to the fact that many of the B vitamins are concentrated in the outer parts of the grain, white flour is deficient in B vitamins. The germ of the wheat is a potent source of vitamin E. White flour consumption results in a potential for vitamin E deficiency in those whose diet is inadequate for vitamin E sources and/or comparatively high in bread-stuffs.

Potassium bromate has long been used to increase the volume of bread and to produce bread with a fine crumb (the non-crust part of bread) structure. Most bromate rapidly breaks down to form innocuous bromide. However, bromate itself causes cancer in animals. The tiny amounts of bromate that may remain in bread may pose a small risk to consumers. Bromate is rarely used in California because a cancer warning is required on the label. "In 1992 and again in 1998, the FDA found baked goods that had bromate at levels the agency considers unsafe," said Center for Science in the Public Interest (CSPI) attorney Darren Mitchell. "But instead of banning the additive, as the UK and Canada have done, the FDA has tried—with only partial success—to get bakers to voluntarily stop using it."

Sugar Stats:

- 1 Sugar can suppress your immune system and impair your defenses against infectious disease.
 - o *American Journal of Clinical Nutrition*, 1997;30:613
- 2 Sugar upsets the mineral relationships in your body: causes chromium and copper deficiencies and interferes with absorption of calcium and magnesium.
 - o *Progressive Food and Nutrition Science* 17;1933:65-87
 - o *Metabolism*. June 1986;35:515_518.
 - o *Journal of Clinical Nutrition*. 1983;113:1335_1345.
 - o *Journal of Clinical Nutrition*. 1976 ;70:236_245.
- 3 Sugar causes a loss of tissue elasticity and function.
 - o *Scientific American*. May 1987:90.
 - o *Annals of the New York Academy of Science*; 663:63-67.
- 4 Sugar can lower your Vitamin E levels.
 - o *Journal of Clinical Endocrinology and Metabolism*. Aug 2000
- 5 Sugar can interfere with your absorption of protein.
 - o *LONGEVITY*. June 1990
- 6 Sugar can change the structure of protein and cause a permanent alteration of the way the proteins act in your body.
 - o *Journal of Gerontology* 1990:45(4):105_110.
 - o *Scientific American*. May 1987:00:00 90
- 7 Sugar can make your tendons more brittle.
- 8 Sugar can cause headaches, including migraines.

- *Lancet*. 1979;1:955_959.
- 9 Sugar can cause an increase in delta, alpha, and theta brain waves which can alter your mind's ability to think clearly.
 - *Nutrition Report*. Mar 1991;9(3):17-24.
- 10 Sugar can cause depression.
 - *Nutrition Report*. Mar 1991;9(3):17-24.

How do I determine if something is a refined carbohydrate?

To tell if a carbohydrate food product is refined, you can look at the ingredients label. Ingredients are listed by weight, so the higher up on the list, the greater quantity of the ingredient. Refined carbohydrates are easily identified by such words as “enriched”, “wheat flour” [as opposed to “whole wheat flour”], “corn syrup”, “high fructose corn syrup”, “sugar”. These products are typically high in calories and usually very low in nutrients.

“Unbleached, unbrominated wheat flour” can be a deceiver. Although this ingredient has not been bleached or brominated as is the traditional “white flour”, it still has the germ removed from the wheat kernel leaving a less nutritive product.

The Carbohydrate – Cancer Link:

A study published in the journal *Cancer Epidemiology, Mile Markers, and Prevention* presents evidence of a link between the consumption of refined carbohydrates and cancer incidence. This controlled study looked at the dietary habits of over 1,800 women in Mexico, and it found that women who got 57% or more of their total energy intake from carbohydrates showed a 220% higher risk of breast cancer than women with more balanced diets. The study found that foods with a high glycemic index actually accelerate the growth of tumors and cancerous cells in the body. Researchers involved with the study think that the correlation between the consumption of refined carbohydrates and breast cancer could be related to elevated levels of insulin due to the fact that many breast cancer tumors are encouraged and supported by high levels of insulin in the body. Insulin may promote some other forms of cancer, including colon cancer.

Many people still do not know that consuming refined carbohydrates is believed to contribute to the incidence of cancer, and thus they continue to drink soft drinks containing high-fructose corn syrup, they continue to eat breakfast cereals loaded with sugars, and they continue to eat large amounts of white flour in products such as breads, pastries, cookies, and crackers.

It is recommended that you avoid processed carbohydrates as much as you can. Also avoid chemical additives that are found in processed foods, especially artificial sweeteners and chemical taste enhancers. The foods to consume that support outstanding human health are the natural foods found in nature, such as whole grains, nuts, seeds, vegetables, fruits, and healthy oils.

- Mike Adams, *New research shows cancer caused by carbohydrates, sugars, white flour, and corn syrup*, August 08, 2004

- Hoyert DL, Kochanek KD, Murphy SL: "Deaths: Final Data for 1997." Hyattsville, MD: National Center for Health Statistics, 1999.

- United States Department of Agriculture: "Nutrition and Your Health: Dietary Guidelines for Americans," 5th ed. Washington, DC: U.S. Department of Agriculture, U.S. Department of Health and Human Services, 2000 .

- Putnam J, Gerrior S: *Trends in the U.S. food supply, 1970–1997*. In Frazão E (ed): "America's Eating Habits: Changes and Consequences." Washington, DC: Economic Research Service, U.S. Department of Agriculture, 1999.

Diabetes, Cardiovascular Disease and Consumption of Refined Carbohydrates:

Type 2 diabetes is indeed an epidemic of our time, affecting approximately 15 million individuals in the US alone, or almost 8% of the US population. Approximately 800,000 new cases were diagnosed in 2000, and worldwide, the number of people with diabetes is expected to rise from 135 million in 1995 to 300 million in 2025. Many do not know they have it until they've been properly tested.

High intake of refined carbohydrates enhances the formation of VLDL cholesterol, or “bad cholesterol” and reduces levels of HDL, [the “good cholesterol”]. Many metabolic studies have shown that high-carbohydrate diets increase levels of fasting triglycerides as well as increase fat deposits by facilitating the conversion of excess carbohydrates to fats. High blood glucose and

increased insulin output are associated with a high carbohydrate diet can also lead to high blood pressure, as well as inflammatory responses that are predictive of increased cardiovascular disease risk and can also cause digestive disorders and general discomfort.

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Blackbird Clinic PLLC specializes in naturopathic and nutritional medicine. Dr. Andrea Black has been a board certified Naturopathic physician since 1987 and is the director of Blackbird Clinic PLLC. For more information or to make an appointment, call 509-422-3700 or visit our website at www.blackbirdclinic.com.