



Healthlink

A publication by the Women, Infants & Children (WIC) Program
Chester County, Pennsylvania.

Commissioners: Terence Farrell, Carol Aichele, Kathi Cozzone

610 344-6240

"Good Nutrition Today For A Healthier Tomorrow"

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High Fructose Corn Syrup- To Consume or Not to Consume?



In the 1950's a new process was developed to manufacture corn syrup by treating cornstarch with enzymes: this product, corn syrup, was developed to achieve a more reliable and cheaper sweetener than cane sugar, which when imported was highly taxed by the US government. By the 1970's an efficient process had evolved so that high fructose corn syrup (HFCS), with a pleasing taste, in a liquid form easy to transport, began to be used to sweeten many of our foods.

With the passage of the 1973 Farm Bill, the United States Department of Agriculture developed a new system of payment for corn farmers to encourage larger outputs, leading to surpluses of the corn crop. With the surplus, high fructose corn syrup became the go-to product for many food manufactures. The Coca-Cola and Pepsi Companies switched from sucrose (table sugar) to HFCS in 1984. (An interesting side note is that in other places in the world, soda is still sweetened with sugar. "Mexican Coca-Cola" for example, is considered better by many persons, and Europeans still pay a lot more for soda since HFCS could not be used there in order to protect the sugar industry.)

By 2003, high fructose corn syrup was in a dead heat with table sugar regarding prevalence in America's food supply. It continues to be used in cereals, breads, cake mixes, fruit drinks, and many more of our processed foods. An incredible 43 pounds of HFCS per person per year is estimated to be processed.



Is There Trouble in Paradise? In 2004, a famous article was released suggesting that HFCS could be fueling the nation's obesity epidemic, since the numbers of obese Americans greatly increased since HFCS entered the food supply. However, years later, the study's co-author, Barry Popkin, admitted that the singling out of HFCS was unjustifiable. ALL sources of sugars in our diets including HFCS were to blame as well as the increased intake of sweetened beverages in our diets.

After the widespread hysteria regarding High Fructose Corn Syrup in 2004, the American Dietetic Association issued a position paper in respect to sweeteners. The American Dietetic Association stated that consumers can, "safely enjoy a range of nutritive and nonnutritive sweeteners." This included HFCS, as long as it was consumed in moderation and with a healthy, well balanced diet.

However, current research indicates that fructose, the major ingredient in HFCS along with glucose, is directly converted to fat more than other sugars and also raises triglycerides. Unlike glucose, fructose does not stimulate insulin secretion or enhance leptin, a hormone thought to be involved in appetite regulation. As a result, the low levels of insulin and leptin production do not signal to us that we are full or satisfied, causing us to continue to eat and increasing weight gain.



In 2008, The Corn Refiner's Association launched a campaign to promote a "change in the conversation" about HFCS. Their aim was to take some blame away from HFCS and its so-called "negative" health effects. Mid-Year, the Food and Drug Administration announced that HFCS met the requirement to be considered a "natural" product. It made the grade because during the processing of high

fructose corn syrup, no artificial or synthetic ingredients or colors are added. Many scientists and dietitians are unhappy with the "natural" definition and discussion continues around the role of HFCS in our foods.

In Conclusion- To Consume or Not To Consume:

- Epidemiological studies have shown that **ALL** added sweeteners increase the risk of fatty liver disease, insulin resistance, heart disease, and type 2 diabetes.
- Added sweeteners add nonnutritive calories, these calories that should have been consumed from protein, carbohydrate and lipids that fuel the body energy systems.
- The American Heart Association recommends that women consume no more than 100 calories a day in added sugars (6 teaspoons) and men consume no more than 150 calories (9 teaspoons) from added sweeteners. In perspective, Americans typically consume on average 355 calories per day from the sweet stuff.
- HFCS continues to be used in many processed foods and beverages; each of us will have to decide if we wish to consume these foods or replace them in our diets with healthier choices.



WIC Nourishes with Loving Gifts

At WIC, we present many of our participants with a gift as they are recertified. We do this to encourage continued participation and to emphasize the nutrition education given during the visit. For example, breastfeeding mothers are presented with bibs for their babies which say, "Together we Breastfeed- Healthy Mommy and Me!" in English or Spanish. They also receive brightly colored nursing bracelets and nursing pads.

Older children are given new toothbrushes with encouragement to use them two times each day. Six month old children receive a sippy cup to help them wean from bottle use and 1-year olds get a toddler fork and spoon set, great for learning to eat correctly.

What fun it is to see the excitement that a special gift can generate in our WIC families!

WIC Clinic Locations in Chester County

Coatesville

Coatesville Center for Community Health
1001 E. Lincoln Highway, Coatesville, PA 19320
610 383-3824
Fax: 610 383-8227

Toughkenamon

Tower Center, Suite 400A
1120 Newark Rd., Toughkenamon, PA 19374
(Enter parking lot on Main Street)
610 344-6240
Fax: 268-5148

West Chester

**Chester County Health Department
Government Services Center**
601 Westtown Road, West Chester, PA 19380
(Enter clinic door on front right side of building)
610 344-6240
Fax: 610 344 5405

Satellite Locations

Oxford

Oxford Presbyterian Church
6 Pine Street, Oxford, PA 19363
Call Toughkenamon for appointments:
610 268-5153
Clinic Dates: 2nd, 3rd, and 4th Tuesdays each month

Phoenixville

First Presbyterian Church
145 Main Street, Phoenixville, PA 19460
Call West Chester for appointments:
610 344-6240
Clinic Dates: 1st and 3rd Thursdays and Fridays each month

Spring City

United Church of Christ
145 Chestnut Street, Spring City, PA 19475
Call West Chester for appointments:
610 344-6240
Clinic Dates: 2nd Thursday each month

WIC is an equal opportunity provider.