

HIGH FRUCTOSE CORN SYRUP

National Indigenous Diabetes
Association



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What is high fructose corn syrup (HFCS)?



- A sweetener made from cornstarch
- Added to many foods to make them sweeter
- Made by breaking corn into molecules of glucose and fructose
- One of the most commonly added sweeteners

<https://www.health.com/nutrition/high-fructose-corn-syrup-video>

What is glucose?



<https://www.diabetes.co.uk/blog/2015/06/the-version-of-sugar-that-wont-affect-your-blood-glucose-levels-and-why-you-cant-have-it/>

- Glucose is a type of sugar
- Glucose enters the bloodstream and is used for energy

What is fructose?

- A type of sugar that is sweeter than glucose
- Unlike glucose, fructose is not as easily used for energy in the body
- Fructose needs to be converted to glucose or fat by the liver before it can be used as energy

How does this impact health?



<https://patientengagementhit.com/news/family-support-most-requested-of-social-determinants-of-health>

- Before high fructose corn syrup became so popular, people's diet contained smaller amounts of fructose
- Since fructose is used differently in your body, it may negatively impact health



[https://www.google.com/imgres?imgurl=https%3A%2F%2Fwww.dreambox.com%](https://www.google.com/imgres?imgurl=https%3A%2F%2Fwww.dreambox.com%2F)

**WHAT ARE SOME
OF THE HARMFUL
EFFECTS?**

Can increase risk of fatty liver disease



- Fructose has a bigger impact on increasing liver fat than glucose
- This is because it is used in the body differently

Can increase weight



<https://www.ishn.com/articles/107651-highway-marine-and-railway-deaths-increase-in-2016>

- Foods containing high fructose corn syrup often add many calories to the diet without adding essential nutrients
- Fructose also promotes fat accumulation which is associated with health complications

Can increase insulin resistance



- Regularly consuming large amounts of high fructose corn syrup can make your body resistant to the effects of insulin
- Over the long-term, this can increase your blood sugar levels

Top Food Sources with High Fructose Corn Syrup

- SODA POP
- Canned foods (ex: soups, fruits)
- Cereals and baked goods
- Desserts
- Sweetened and flavoured dairy products (ex: yogurt, condiments, jellies)
- Candies
- Many fast food items (ex: Big Mac bun & sauce, KFC potato salad, Subway wheat bread)

Soda pop is one of the main contributing factors to diabetes in Indigenous communities!

6
COUNT
CASE



<https://www.jellybelly.com/soda-pop-shoppe-jelly-beans-1.5-oz.-bottles-6-count-pack/p/91197>



<https://www.meijer.com/shop/en/pantry/condiments-sauces/ketchup/heinz-tomato-ketchup-14-oz-bottle/p/130000115>



<https://www.eatthis.com/what-happens-to-your-body-when-you-eat-fast-food/>

<https://www.eatthis.com/best-canned-store-bought-soups/>

Food	Sugar (teaspoons)	Sugar (grams)
Ketchup (1 Tbsp)	1	4 g
Coffee with sugar (2 tsp)	2	8 g
Granola bar (35 g)	2.5	10 g
Jam (1 Tbsp)	2.5	10 g
Sweetened breakfast cereal (30 g)	3.5	14 g
Chocolate bar (58 g)	7	28 g
Pop (355 mL can)	10	40 g
Blueberry muffin (168 g)	11	44 g
Jellybeans (1/4 cup)	11	44 g



**FIND OUT HOW
MUCH ADDED
SUGAR IS IN
THESE FOODS**

What about the fructose in fruit?

- Whole foods that contain fructose such as fruit do not pose a risk
- It would be difficult to consume excess amounts of fructose from whole foods
- Dietary guidelines recommend consuming fruits over foods with added sugars



<https://www.healthyeating.org/nutrition-topics/general/food-groups/fruits>

What to look for on labels

- “In Canada, High Fructose Corn Syrup (HFCS) is called “glucose-fructose” in the ingredient list.

- **Watch out for these words on the ingredient list**

Glucose, fructose, sucrose, maltose, lactose, galactose or dextrose cane juice or evaporated cane juice, syrups and honey: agave, liquid invert sugar, maple syrup, corn syrup, brown rice syrup, palm syrup.

• Vitamin E 25% • Thiamin 25% • Riboflavin 5% • Pantothenic Acid 25% • Phosphorus 35%

(CORN SYRUP, INVERT SUGAR, PEANUT BUTTER (PEANUT OIL, SEED GUM, BETA-CAROTENE), CHOCOLATE FLAVORED (CORN SYRUP, ACACIA GUM, FRUCTOSE SYRUP, POTASSIUM PHOSPHATE, SALT, **VITAMIN AND MINERAL BLEND** (CALCIUM FUMARATE, PYRIDOXINE HYDROCHLORIDE, VITAMIN A, VITAMIN E, VITAMIN K, VITAMIN B1, VITAMIN B2, VITAMIN B6, VITAMIN B12, NIACIN, RIBOFLAVIN, THIAMIN, PANTOTHENIC ACID, PHOSPHORUS, POTASSIUM PHOSPHATE, SALT, ZINC OXIDE), EGGS, TREE NUTS AND WHEAT.

soupe (15 mL)

% Daily Value
par portion quotidienne

0 %

0 %

10 mg

6 %

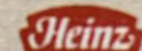
Family Fajitas
Fajitas
classiques



heinzitup.com

INGREDIENTS: TOMATO PASTE (MADE FROM FRESH RIPE TOMATOES), LIQUID SUGAR, WHITE VINEGAR, SALT, ONION POWDER, SPICES.

INGRÉDIENTS : PÂTE DE TOMATE (FAITE DE TOMATES MÛRES BIEN FRAÎCHES), SUCRE LIQUIDE, VINAIGRE BLANC, SEL, OIGNON EN POUDRE, ÉPICES.



How Much Added Sugar is Okay?



- People with diabetes can eat foods that have added sugar, but it is important to eat small amounts of these foods to help manage your blood glucose levels.

RECOMMENDATIONS

Restrict added energy from sugar to no more than 10% of energy intake

That's about 12.5 teaspoons of sugar (50 grams) in a 2000 calorie diet. This amount may be higher or lower than the amount that is ok for you.



https://www.google.com/url?sa=i&url=https%3A%2F%2Fnypost.com%2F2019%2F09%2F04%2Fnew-study-links-sugar-free-sodas-to-higher-risk-of-death%2F&psig=AOvVaw2wK6Zie1miqKden_IIByaP&ust=1611422186480000&source=images&cd=vfe&ved=2ahUKEwi0iKvJhbDuAhVDvKwKHQDWBzMQr4kDegUIARDuAQ