

## How corn syrup might be making us fat

Curious Cat Science and Engineering Blog

Glucose lowered the activity of the hypothalamus but fructose actually prompted a small spike to this area. As might be expected from these results, the glucose drink alone increased the feelings of fullness reported by volunteers, which indicates that they would be less likely to consume more calories after having something sweetened with glucose than something sweetened with more fructose.

Fructose and glucose look similar molecularly, but fructose is metabolized differently by the body and prompts the body to secrete less insulin than does glucose (insulin plays a role in telling the body to feel full and in dulling the reward the body gets from food). Fructose also fails to reduce the amount of circulating ghrelin (a hunger-signaling hormone) as much as glucose does. (Animal studies have shown that fructose can, indeed, cross the blood-brain barrier and be metabolized in the hypothalamus.) Previous studies have shown that this effect was pronounced in animal models...

Most of the science indicates [calories consumed is by far the dominant factor in weight gain](#) [1]. Different foods with the same calories can affect how hungry you feel. Thus the biggest factor in reducing weight gain seems to be reducing calories and one way to help is to eat food that leaves you feeling full and avoid foods that don't.

The science is not completely clear though on whether certain diets can have a significant affect above and beyond calorie levels. I am skeptical of such claims, however. There are concerns beyond calories for healthy eating - getting a well balanced diet is important.

Healthy physical activity is also important. Burning off calories with exercise allows more consumption without weight gain. And exercise is important for health not just to avoid gaining weight.

**Source URL (retrieved on 08/21/2014 - 4:44am):**

<http://www.ecnmag.com/blogs/2013/01/how-corn-syrup-might-be-making-us-fat>

### Links:

[1] <http://engineering.curiouscatblog.net/2009/03/03/study-shows-weight-loss-from-calorie-reduction-not-low-fat-or-low-carb/>