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As the EU Launches Shocking Fructose Health Claim Label, Oreos Are Found to Be as Addictive as Cocaine

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By Dr. Mercola

When you eat refined processed sugars, they trigger production of your brain's natural opioids -- a key ingredient in the addiction process. Your brain essentially becomes addicted to stimulating the release of its own opioids as it would to morphine or heroin.

This addictive nature of sugar and processed food has again been confirmed by a psychology professor and a team of students at the College of Connecticut,^{1, 2} who showed that Oreo cookies are just as addictive as cocaine or morphine.

The study, which was designed to investigate the potential addictiveness of high-fat/high-sugar foods, also found that eating Oreos activated more neurons in the rat brain's pleasure center than exposure to illicit drugs did. According to professor Schroeder:

"Our research supports the theory that high-fat/ high-sugar foods stimulate the brain in the same way that drugs do. It may explain why some people can't resist these foods despite the fact that they know they are bad for them."

The idea for the study originated with neuroscience major Jamie Honohan, who wanted to know how the high prevalence of junk foods in low-income neighborhoods might contribute to the obesity epidemic.

Indeed, it's quite revealing to note that, in contrast to third-world countries, in the US the *poorest* people have the highest obesity rates. This seeming contradiction is, I believe, a clear indication that the problem stems from the diet itself.

Something in the cheapest and most readily available foods is creating metabolic havoc, and that's exactly what researchers keep finding. As reported by Connecticut college:

"...Oreos activated significantly more neurons than cocaine or morphine. This correlated well with our behavioral results and lends support to the hypothesis that high-fat/ high sugar foods can be thought of as addictive," said Schroeder.

And that could be a problem for the general public, says Honohan. 'Even though we associate significant health hazards in taking drugs like cocaine and morphine, high-fat/ high-sugar foods may present even more of a danger because of their accessibility and affordability,' she said."

Please note that I do not agree with the comment that everything that is considered high-fat is bad for you. Oreo cookies and virtually every other processed snack are bad because they use highly processed omega-6 vegetable oils, the wrong type of fat. However it is possible to make a healthy high-fat snack using oils like coconut oil.

Processed Foods Are DESIGNED to Be Addictive

Indeed, scientific research into the addictive nature of certain foods, combined with shocking "insider" exposés,³ tells us that Americans are not necessarily lacking in self control when it comes to their food consumption. Rather, food companies have perfected food concoctions that are addictive. And they know it.

Most people blindly believe that food companies will do the right thing; that they would never produce food that might be toxic

Story at-a-glance

According to a recent animal study, Oreo cookies are just as addictive as cocaine or morphine, activating more neurons in the brain's pleasure center than exposure to illicit drugs

Most processed foods are actually created to be addictive—whether we're talking about cookies or pasta sauce—through the masterful use of addictive ingredients like salt, fat, sugar and a wide variety of proprietary flavorings

In a shocking twist, the European Union has approved a health claim for fructose, slated to take effect as of 2014

Food manufacturers that replace at least 30 percent of the glucose and/or sucrose content in their food with fructose will be allowed to state their product has a positive effect on carbohydrate metabolism and insulin sensitivity

While fructose creates a lower glycemic response immediately after eating it, compared to sucrose or glucose, it is grossly misleading to say it's therefore healthier for you, as this completely ignores its overall metabolic consequences

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or harmful. This, we've learned is not the case.

The food industry is well aware of its role in creating obesity, and they're not ignorant as to the reason why Americans can't seem to get enough junk food. They even insist on selling foods to the American market with ingredients that have been banned for health reasons in other countries...

Most processed foods are actually created to be addictive—whether we're talking about cookies or pasta sauce—through the masterful use of addictive ingredients like salt, fat, sugar and a wide variety of proprietary flavorings.

In a previous *New York Times* article,⁴ investigative reporter Michael Moss wrote about the extraordinary science behind taste and junk food addiction, and how multinational food companies struggle to maintain their "stomach shares" in the face of mounting evidence that their foods are driving the health crisis.

In it he mentions a 1999 meeting between 11 CEOs in charge of America's largest food companies, including Kraft, Nabisco, General Mills, Procter & Gamble, Coca-Cola and Mars, where their role in the increasingly poor health of Americans was addressed head-on. Moss writes in part:

"James Behnke, a 55-year-old executive at Pillsbury... was engaged in conversation with a group of food-science experts who were painting an increasingly grim picture of the public's ability to cope with the industry's formulations —

From the body's fragile controls on overeating to the hidden power of some processed foods to make people feel hungrier still. It was time, he and a handful of others felt, to warn the C.E.O.'s that their companies may have gone too far in creating and marketing products that posed the greatest health concerns."

SHOCKING! EU Approves Health Claim for Fructose

With everything we now know about the metabolic disaster that is fructose, it's absolutely SHOCKING to learn that the European Union has approved a *health claim* for fructose,⁵ slated to take effect as of 2014. Many of my readers are scattered through the EU nations, and for you, understanding the ramifications of this label is crucial.

As of 2014, food manufacturers that replace *at least 30 percent* of the glucose and/or sucrose content in their food with *fructose* will be allowed to put a health claim on their product, stating that it has a positive effect on carbohydrate metabolism and insulin sensitivity.

There's no doubt in my mind that such a health claim will promote an avalanche of chronic disease, as food manufacturers start switching *from the lesser to the greater of two evils*... As reported by Ingredients Network:⁶

"[F]ood and beverage manufacturers can expect a healthy upward surge in sales for products with fructose from the 2nd of January 2014 when the European Union's fructose health claim comes into effect. ...[T]he fructose declaration promises to be truly ground breaking for food and beverage manufacturers. Manufacturers who substitute at least 30 percent of glucose or sucrose with fructose can now claim that

'Consumption of foods containing fructose leads to a lower blood glucose rise compared to foods containing sucrose or glucose.' ...fructose's ability to emphasize fruity flavors also makes the news particularly favorable for manufacturers of beverages, fruit preparations, fruit flavored ice-cream, yogurts and more.

Since the EU's game-changing step, validating fructose benefits, the industry's attention has focused with increased urgency on the opportunities presented by incorporating non-GMO crystalline fructose into different food and beverages products..."

Why Fructose Is Worse for You Than Other Sugars

One of the primary problems with refined fructose is that it is isocaloric but not isometabolic. What this means is that while you can have the same amount of calories from fructose or any other nutrient, including glucose, the *metabolic effect* will be entirely different despite the identical calorie count.

While it is true that refined fructose creates a lower glycemic response immediately after eating it, compared to sucrose or glucose, to say that it is therefore healthier for you is a gross and seriously misleading claim that wholly ignores its overall metabolic consequences.

In short, the fact that refined fructose produces a lower immediate glycemic response is completely irrelevant, because the overall metabolic effects are far more destructive. In my view, this label is dangerous, and may set the EU up for an out-of-control spiral of chronic disease.

Refined fructose actually affects your body in ways similar to alcohol, hence the rise in non-alcoholic fatty liver disease—and, again, *addiction*. Fructose and ethanol both have immediate, narcotic effects associated with their dopaminergic properties. In the same way that alcohol can lead to the downward spiral of compulsive overconsumption, fructose tends to generate an insatiable and intense sensation of pleasurable sweetness, often driving us to consume far more than our body can handle; even while it damages multiple organ systems.

The EU Panel on Dietetic Products, Nutrition and Allergies even spells out the consequences in their Opinion paper,⁷ while still agreeing with the proposed health claim for fructose:

*"The Panel considers that in order to bear the claim, glucose or sucrose should be replaced by fructose in sugar sweetened foods or beverages. The target population is individuals who wish to reduce their post-prandial glycaemic responses. **The Panel notes that high intakes of fructose may lead to metabolic complications such as dyslipidaemia, insulin resistance and increased visceral adiposity.**" [Emphasis mine]*

What You Need to Know About Fructose versus Glucose Metabolism

Again, while refined fructose creates a lower glycemic response in the short term, compared to other sugars, in the long term, it causes greater metabolic havoc than sugar. This has been *repeatedly* demonstrated in scientific studies. One of the most recent ones, published in the journal *Nature*,⁸ again concluded that while refined fructose and glucose have the same caloric value, they are metabolized differently, and fructose causes more harm of the two. Below is a summary of the main differences between glucose and fructose metabolism, which explains why I keep repeating that fructose is by far the worst type of sugar there is:

With fructose, 100 percent of the metabolic burden rests on your liver. But with glucose, your liver has to break down only 20 percent

Every cell in your body, including your brain, utilizes glucose. Therefore, much of it is "burned up" immediately after you consume it. By contrast, fructose is turned into free fatty acids (FFAs), VLDL (the damaging form of cholesterol), and triglycerides, which get stored as *fat*

The fatty acids created during fructose metabolism accumulate as fat, both in your liver and skeletal muscle tissues, causing insulin resistance and non-alcoholic fatty liver disease (NAFLD). Insulin resistance progresses to metabolic syndrome and type II diabetes

Fructose is the most lipophilic carbohydrate. In other words, fructose converts to activated glycerol (g-3-p), which is directly used to turn FFAs into triglycerides. The more g-3-p you have, the more fat you store. Glucose does not do this

When you eat 120 calories of glucose, less than one calorie is stored as fat. 120 calories of fructose results in 40 calories being stored as fat. Consuming fructose is essentially consuming fat!

The metabolism of fructose by your liver creates a long list of waste products and toxins, including a large amount of uric acid, which drives up blood pressure and causes gout

Glucose suppresses the hunger hormone ghrelin and stimulates leptin, which suppresses your appetite. Fructose has no effect on ghrelin and interferes with your brain's communication with leptin, resulting in overeating

In addition to fructose's dopamine modulating activity, there appears to be a fructose-opiate connection. While both glucose and fructose are capable of creating **pain killing effects**, researchers have found that fructose is more potent than glucose in accomplishing these effects, suggesting it may be more addictive

Cancer Researcher Issues Stark Warning

This is a Flash-based video and may not be viewable on mobile devices.

In the video above, Dr. Lewis Cantley, a cancer researcher and head of the Cancer Center at New York's Weill Cornell Medical College, explains why a high-sugar diet is so dangerous—in particular to children. First, it's important to know that the factor that links obesity, diabetes, and cancer is *insulin and leptin resistance*. Insulin and leptin resistance, and even full-blown type 2 diabetes, is now becoming increasingly prevalent in children and teens—something that was virtually unheard of 50 years ago. As Dr. Cantley says, type 2 diabetes is referred to as "late onset diabetes" for the precise reason that it typically didn't strike until you were in your 60s.

If diabetes at 60 is evidence of a lifetime of higher-than-ideal sugar consumption, then the fact that *teenagers* are now developing type 2 diabetes tells us that the amount of sugar in the average diet, starting from infancy, is *exceptionally* high—so high that the ramifications become evident *several decades* sooner than before! This in turn exponentially increases the child's risk of developing cancer at some point in his or her life. Dr. Cantley warns:

"This correlation of earlier and earlier type 2 diabetes, that means you now have 20, 30, 40 years of high insulin levels, which could potentially drive the growth of tumors. It really does make us very worried that advances we're making in treating cancer is going to be completely offset by this dramatic increase in cancers that are associated with diabetes and obesity... The more I learn about it, the more compulsive I become about avoiding sugar."

Think about it... Sugar used to be available to our ancestors only as fruit or honey—and then only for a few months of the year—compared to today, when fructose (primarily in the form of high fructose corn syrup) is added to virtually all processed foods and drinks; even items you normally would not think of as being high in sugar. Tragically, many *infant formulas* even contain more than 50 percent sugar! This, I believe, gets your child hooked on sweets virtually from day one, and sets the wheels in motion for metabolic dysfunction.

If you received your fructose only from vegetables and fruits (where it originates) as most people did a century ago, you'd consume about 15 grams per day. Today, the average is 73 grams per day, which is nearly 500 percent higher a dose and your body simply can't tolerate that type of biochemical abuse. Furthermore, in vegetables and fruits, the fructose is mixed in with fiber, vitamins, minerals, enzymes, and beneficial phytonutrients, all of which help moderate the negative metabolic effects.

This is why, as a general rule, I advise keeping your daily fructose consumption, from ALL sources, including whole fruit, below 25 grams per day. If you are overweight and/or have insulin resistance, diabetes, heart disease, high blood pressure or other chronic disease, you'd be wise to limit it further—down to 15 grams a day.

Take Control of Your Health, and Don't Fall for Grossly Misleading Fructose Health Claims

For the first time in history, "lifestyle" diseases -- diabetes, heart disease, and some cancers -- are killing more people than communicable diseases. According to GreenMedInfo.com, scientific studies have linked fructose to about 78 different diseases and health problems.³ Select the hyperlinks provided to review how fructose may:

[Raise your blood pressure, and cause nocturnal hypertension](#)

[Insulin resistance / Type 2 Diabetes](#)

[Non-alcoholic fatty liver disease \(NAFLD\)](#)

[Raise your uric acid levels, which can result in gout and/or metabolic syndrome](#)

[Accelerate the progression of chronic kidney disease](#)

[Intracranial atherosclerosis \(narrowing and hardening of the arteries in your skull\)](#)

[Exacerbate cardiac](#)

[Have a genotoxic effect on](#)

[Promote metastasis in](#)

abnormalities if you're deficient in copper

the colon

breast cancer patients

Cause tubulointerstitial injury (injury to the tubules and interstitial tissue of your kidney)

Promotes obesity and related health problems and diseases

Promotes pancreatic cancer growth

As previously reported in a *New York Times*¹⁰ opinion piece on the dramatic health care savings promised by healthier lifestyle habits and diet:

"The INTERHEART study of 30,000 men and women in 52 countries showed that at least 90 percent of heart disease is lifestyle related; a European study of more than 23,000 Germans showed that people with healthier lifestyles had an 81 percent lower risk."

Treating these *entirely preventable* illnesses costs more than one-seventh of the US gross domestic product (GDP). It stands to reason then that *preventing* these diseases could save the US health care system around *one trillion dollars a year!*¹¹ One of the primary, and likely most effective ways of preventing these diseases would be to curb the outrageous over-consumption of sugar.

Your Lifestyle Will Make or Break Your Health

Unfortunately, processed foods are HUGE business with great profit margins—maximized, I might add, by designing foods with *addictive* qualities, through the use of salt, sugar, fat and other secret, proprietary flavor formulas. The food industry as a whole has NO incentive whatsoever to switch to selling and marketing whole foods—unless the market absolutely demands it.

I believe the current situation can change, but only if enough people understand the simple truths of healthy eating and refuse to buy sugar-laden processed foods. If you want to protect your health, and the health of your family, my most urgent recommendation is to do just that—replace the processed foods with homemade meals, made from scratch using whole ingredients.

Remember, insulin and leptin resistance are core factors in obesity, which in turn is a risk factor for cancer and may boost tumor growth. Insulin and leptin resistance is also at the root of most other chronic diseases. To safely and effectively reverse insulin and leptin resistance, you need to:

1. Avoid, sugar, fructose, grains, and processed foods
2. Eat a healthful diet of whole foods, ideally organic, and *replace the grain carbs* with:
 - Large amounts of vegetables
 - Low-to-moderate amount of high quality protein (think organically raised, pastured animals)
 - As much highly quality healthful fat as you want (saturated and monosaturated). Most people need upwards of *50-70 percent* fats in their diet for optimal health. Good sources include coconut and coconut oil, avocados, butter, nuts, and animal fats. Also take a high-quality source of animal-based omega-3 fat, such as krill oil

As I've said before, about 80 percent of the health benefits you reap from a healthy lifestyle comes from your diet, and the remaining 20 percent from exercise – but it's a very important 20 percent, as it acts in tandem with and boosts the benefits derived from a proper diet. For maximum benefits, you'll want to make sure to include high-intensity interval training, which is at the heart of my Peak Fitness program. To learn more, please see my previous article: "The Major Exercise Mistake I Made for Over 30 Years."

[+] Sources and References

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