How Ultra-Processed Foods Could Cause Disease: Addictive Properties Transcript

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Are Ultra-Processed Foods Addictive?

"How Ultra-Processed Foods Could Cause Disease–Addictive Properties" I've done videos on all these factors that may link increased consumption of ultra-processed foods with an increased risk of disease and death, except this one: compulsive eating.

Are ultra-processed foods addictive, and why would it matter? Well, identifying tobacco products as not just unhealthy but also as addictive undermined the industry's claim that smoking was solely an act of free choice.

It's interesting.

Tobacco Industry Tactics in Food Marketing

The food industry didn't just use the tobacco playbook in marketing ultra-processed foods, like disproportionately targeting communities of color; they were the tobacco industry.

The rise in ultra-processed foods coincides with major tobacco corporations acquiring large food companies and becoming the biggest producers of ultra-processed foods.

Tobacco giant Phillip Morris bought major U. S. food companies including Kraft and General Foods, making Phillip Morris the largest food company in the world.

R. J. Reynolds, the largest tobacco company in the United States, purchased Nabisco and doubled company food profits in a single year.

How Processed Foods Become Hyperpalatable

They learned product formulation strategies from tobacco company scientists, which included adding a variety of appealing colors to their sugar-sweetened beverages.

Many of today's leading children's drink brands– Hawaiian Punch, Kool-Aid, Capri Sun– were developed by tobacco companies. And then they added more sugar and caffeine to maximize consumption of some of their products, just as the tobacco industry manipulated nicotine levels in cigarettes to keep users smoking, and convert as many as possible into "heavy users." Not all foods have addictive potential.

People don't tend to compulsively crave cabbage or binge on bananas. Highly processed foods appear to be most related to an indicator of addictive-like eating, like loss of control.

In "Which Foods May Be Addictive?" dozens of foods were ranked based on reports of problematic, addictive-type behaviors from hundreds of individuals.

A hundred percent of the top ten most problematic foods were ultra processed, whereas a hundred percent of the least problematic foods were not. How exactly are ultra-processed foods formulated to be "addictively" delicious, so you can't eat just one?

Dose, Speed, and Reward in Food Addiction

Ultra-processed foods are intentionally created to be hyperpalatable through the addition of added fats, refined carbs like white flour and sugar, and salt.

The combination of refined carbs and fats seem to have a particular effect on the reward systems in our brain, which may increase the addictive potential of these foods.

Few folks may sit down to enjoy a bowl of straight sugar or a tub of shortening, but put them together and you've got frosting! Why don't we crave trail mix as much?

That's about as sugary and fatty as natural foods get. The key appears to lie in the processing, which increases the dose and speed of absorption of the sugar and fat.

Hard liquor is more addictive than beer because of the dose, and crack is more addictive than cocaine because of the speed of absorption. Food processing can increase both of those simultaneously, delivering high loads of concentrated sugar and fat, while, at the same time, stripping away fiber, protein, and water to maximize the rate of absorption.

From Natural Sugars to Industrial Concentrates

There was an exponential increase in scientific publications on food addiction following the 2007 publication of this pivotal study: "Intense Sweetness Surpasses Cocaine Reward," which found that when rats were allowed to choose between artificially sweetened water or intravenous cocaine, nine out of ten chose the sweet taste over one of our most addictive drugs.

People have been chewing coca leaves for a thousand years as a mild stimulant without any evidence of addiction, but when certain components in the plant were processed into a concentrated form for rapid delivery, it became a different story.

Just like with many drugs of abuse, salt, sugar, and fat are substances found in nature, but they exist naturally in much smaller concentrations and may only become problematic when extracted and concentrated by modern industrial processes.

Sugarcane stem has been chewed for its pleasant taste for ages, but it only represents a disproportionate reward signal once highly refined into added sugars with the potential to override our self-control mechanisms and, thus, lead to analogous addictive-type behaviors.

There's a reason we're more likely to supersize soda than sweet potatoes. It was healthy and adaptive for our primate brains to search out sweetness in the form of a banana, but now that fruit is in Loop form, "this adaptation has become a dangerous liability."