



## Feel-Good Gene May Spur Snacking

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**(WebMD)** Do you crave a favorite snack food so badly that you would go out of your way to get it? Scientists have a new clue about why that happens.

Some people are more motivated than others to seek out their favorite foods. That motivation may involve a gene for the feel-good brain chemical dopamine, according to new research.

The finding may lead to personalized obesity treatment, the researchers predict.

But don't blame your genes for your food choices. It's not quite that simple.

"Behavior and biology interact and influence each other," Leonard Epstein, PhD, says in a news release.

Epstein is the Distinguished Professor in the departments of pediatrics and social and preventive medicine at the State University of New York at Buffalo.

### **Favorite Snack Foods**

Epstein's team studied 74 adults aged 18-40. The group included 29 obese people.

At the researchers' lab, participants did five things:

**Eat breakfast.** Everyone got the same foods.

**Complete surveys** about their eating habits.

**Provide a DNA sample** by getting the inside of their cheek swabbed.

**Sample and rate six snacks:** Lay's Potato Chips, Doritos, M&Ms, and three different candy bars (Twix, Kit Kat, and Butterfinger).

**Take a food motivation test.** In the test, participants could earn points on a computer to earn their favorite of the six snacks or points to read the *Buffalo News*.

### **Will Work for Food**

Some participants found food a much bigger motivator than others. They ate more of their favorite of the six snacks.

Those participants tended to have a certain variation in a dopamine receptor gene. Dopamine is a brain chemical linked to reward.

Here's how participants ranked in food motivation, from most to least motivated:

- Obese people with the gene variation
- Obese people without the gene variation
- Nonobese people with the gene variation
- Nonobese people without the gene variation

As that list shows, obesity didn't always go hand-in-hand with the gene variation.

When it comes to weight loss, each person's unique blend of genetic and behavioral traits might be a key to success, Epstein's team suggests.

The study appears in *Behavioral Neuroscience*.

By Miranda Hitti  
Reviewed by Louise Chang  
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