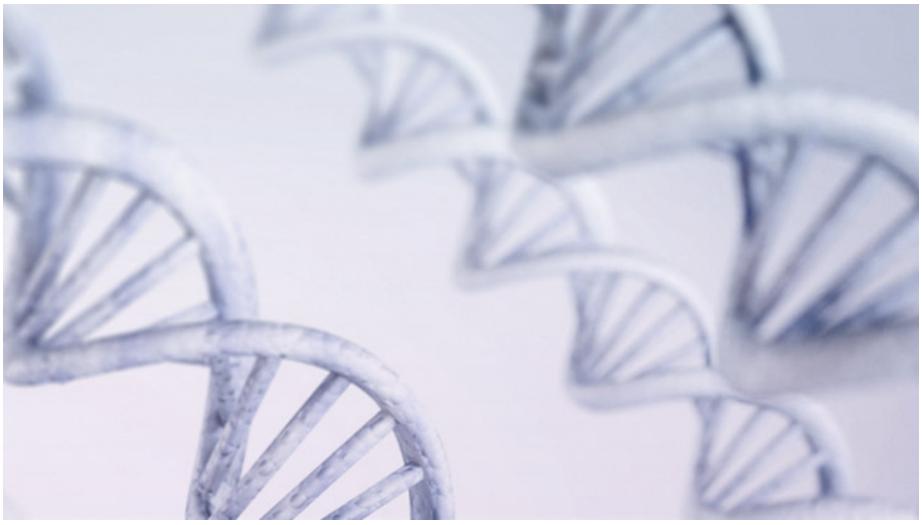
HealthlineNews

It's Our Culture, Not an Obesity Gene, That Makes People Fat, Expert Says

Written by Chuck Green | Published on August 27, 2015

RAND Corporation scientist disputes study on obesity gene, saying being fat "has absolutely nothing to do with genetics," while others say the research can lead to new treatments.



Totally overblown.

That's how Dr. Deborah Cohen characterizes a report last week trumpeting that scientists had cracked the code behind how the key gene tied to obesity makes people fat.

The report called the research a major discovery that could open the door to an entirely new approach to the problem beyond diet and exercise.

It went on to say the work — led by scientists at MIT and Harvard University — solves a big mystery.

Since 2007, researchers have known that a gene called FTO was related to obesity, but they didn't know how it worked. They were also unable to tie it to known factors, like appetite.

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It's Our Culture, Not Genetics

While commending the scientists' work, Cohen, senior natural scientist at the RAND Corporation, termed the summary "someone's hype about the potential for a genetic intervention to solve the obesity crisis."

It "completely overstated what the scientists said in the original article," she said of the piece, published online by the New England Journal of Medicine. "The obesity epidemic has absolutely nothing to do with genetics."

It's "a distraction and prevents us from addressing the problem in a way that will ultimately make a difference in the short term," Cohen told Healthline. "We're [conducting studies] that have absolutely limited, marginal hope of making a difference in this problem."

What would make a difference?

> *The obesity epidemic has absolutely nothing to do with genetics.*
>
> Deborah Cohen, RAND Corporation

"Our environment makes people eat too much and influences them in ways they're unable to resist," explained Cohen. "People are designed to feel hungry when they see food. If they're served too much, they eat more than they should. We should be doing things like standardizing portion sizes. Every time you eat out, you're putting yourself at risk for chronic disease because restaurants generally serve too much."

There's a myth that obesity is a consequence of a person's individual and deliberate choices, she continued.

"We think people should be totally independent of the environment around them. We underestimate its power to influence people," she said.

For example, Cohen said supermarkets regularly manipulate customers by placing unhealthy foods in highly prominent areas.

"If [that sort of thing] was a bigger story, we might shift public opinion. There might be demand to change those things," she said.

Humans aren't perfect and need protection — including from an unhealthy food environment, Cohen stressed.

"It should be harder to eat unhealthy. Instead, it's difficult to maintain a healthy diet," she said.

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Genetic Studies Could Lead to New Treatments

On the other hand, Dr. Lisa Neff believes the study represents an "exciting time" for obesity scientists and patients struggling with the condition.

"For the first time, a number of treatment options are available in terms of weight loss medications and a variety of surgeries," she said.

There's also a growing awareness and understanding that "it isn't just what you eat and physical activity, but also an influence of hormones, genetics and metabolism," said Neff, an assistant professor of medicine-endocrinology at Northwestern University Feinberg School of Medicine.

Unlike Cohen, Neff does see a link between the obesity epidemic and genetics.

Previous research has shown that 45 to 75 percent of our body weight is attributed to inherited or genetic factors, she noted.

> *[The study] shows why some individuals with the FTO gene variant associated with obesity are more likely to gain weight when they consume extra calories.*
>
> Dr. Lisa Neff, Northwestern University

"This new study highlights the role of genetics in weight management nicely," Neff told Healthline. "It shows why some individuals with the FTO gene variant associated with obesity are more likely to gain weight when they consume extra calories, while some of those without the FTO gene might be protected against weight gain."

However, Neff also cautions against the ease with which people can gain weight in the United States.

"We have foods that are high in calories and freely available, at all times of the day and night. And we don't have to burn many calories to go out and get them," she said.

"We have fully stocked grocery stores and refrigerators, and high calorie foods,"

Neff added. "And we have escalators and cars and no sidewalks. Physical activity is hard to come by."

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Using Genetic Knowledge to Tackle Obesity

Cassie Bjork, a registered dietitian with Healthy Simple Life in the Greater Minneapolis-St. Paul area, says knowledge in this case could be power.

"We always say that genetics load the gun and the environment pulls the trigger," Bjork told Healthline. "If we want to look at the glass as half full, if people discover they have the obesity gene, perhaps they'll learn how to create the most ideal environment in their bodies through eating real food and working with a health practitioner who can help them focus on improving their gut health."

By doing so, they'll enhance their ability to reduce internal chronic inflammation, optimizing thyroid health and hormonal balance, she explained.

Consequently, "the gene doesn't express itself."

> *It's 2015. After almost 40 years of eating low fat, people are more overweight and sicker than ever.*
>
> Cassie Bjork, Healthy Simple Life

Unfortunately, Bjork added, the majority of guidance obese patients currently receive from their healthcare practitioners is wrong.

The standard recommendation, which includes consuming a low-fat, high carbohydrate diet, isn't the answer to the obesity epidemic, Bjork emphasized.

"It's 2015. After almost 40 years of eating low fat, people are more overweight and sicker than ever," she said.

As a result, if anything, besides being instructed to eat less, obesity patients will be given a pill with side effects having unknown, long-term side effects.

"It likely will compound their problems," Bjork said.

"Could this gene be seen as an excuse to eat whatever you want if you find you have it? Absolutely," said Bjork.

Neff wouldn't recommend it, though.

"[Generally], patients who have this gene variance will be more susceptible to weight gain than if they don't have it," she said. "So they'd be better off continuing

to be careful with their diet."

On top of that, those without the gene variance remain susceptible to "a whole lot of other gene variances associated with obesity. No one's in the clear," said Neff.

What Should Be Done Now?

Meanwhile, especially since work in this area remains in the research phase, Neff doesn't expect patients will immediately receive different guidance due to the findings.

"It doesn't make sense at the moment, especially since it's not covered by insurance and there's no great evidence that it's worth people's time, effort or money," she said.

However, if studies pinpointed that someone with the FTO gene responded better to one treatment or another, "that next step could happen," Neff remarked. "Performing the gene test might be sensible and worthwhile."

Nevertheless, is Cohen surprised at least portions of the medical community are embracing the study's findings?

"I'm a physician and my background's in public health. Unfortunately, very few of the physicians in the U.S. understand public health," she said. "They're trained in traditional medicine. They solve problems with pills and medicines."

Given obesity impacts two-thirds of the population, Cohen called it "a big mistake" to think a pill will be developed to reach a population that widespread.

Whatever the case, Neff believes it's best to allow things to play out.

"Sometimes, a discovery like this can lead to a magnificent drug discovery," she said. "Sometimes, it can lead nowhere."

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