

Obesity caught like common cold

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Yet another claim that a common and contagious virus is linked to some cases of obesity is in the news today.

Studies on humans show that 33 per cent of obese adults had contracted an adenovirus called AD-36 at some point in their lives, according to an article in the UK's Daily Express, whereas only 11 per cent of lean men and women have had the virus.

The research, to be presented in a BBC television special, is not big news to scientists, however. Further, some worry that the portrayal of obesity as something you simply catch could obscure the fact that overeating remains the biggest driver of obesity.

The facts

The National Centers for Disease Control and Prevention estimates that about one-third of U.S. adults are obese, as are 16 percent of children and adolescents age 2 to 19.

Obesity increases the risk of heart disease, type 2 diabetes, stroke and other illnesses.

It is increasingly clear, several experts say, that viruses might play a role in some obesity cases. There are 49 known human adenoviruses. They cause everything from the common cold to gastrointestinal problems and eye inflammation, pneumonia, croup, and bronchitis.

AD-36 was first fingered as being possibly linked to obesity more than a decade ago. Nikhil Dhurandhar, of Pennington Biomedical Research Center in Louisiana, and a colleague made the connection in 1997 in research presented at an annual Experimental Biology meeting. That preliminary study of 199 people found that up to 15 percent of them carried antibodies to the virus, which provided indirect evidence that they once were exposed to the virus itself.

Prior to that, Dhurandhar had showed that another type of adenovirus that infects birds and is found only in his native India could induce obesity when it was injected into chickens.

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In 2006, research led by Leah Whigham of the departments of Medicine and Nutritional Sciences at the University of Wisconsin, Madison found that another human adenovirus, AD-37, causes obesity in chickens. The results were published in the American Journal of Physiology—Regulatory, Integrative and Comparative Physiology published by the American Physiological Society.

Then in 2007, researchers found that AD-36 could transform adult stem cells obtained from fat tissue into fat cells. "We're not saying that a virus is the only cause of obesity, but this study provides stronger evidence that some obesity cases may involve viral infections," Magdalena Pasarica of Louisiana State University (and a colleague of Dhurandhar) said at the time.

Today's claim

Today, Dhurandhar said it's the spreading of the virus to other parts of the body that's key to its ability to fuel obesity. "When it goes to fat tissue it replicates, making more copies of itself and in the process increases the number of new fat cells, which may explain why people get fat when they are infected with this virus," he said in the Daily Express.

Other researchers point out that the prime cause of obesity is still likely to be environmental, as in what you eat.

"These associations may give some clues but they detract from the basic message that we all need to take more exercise and eat a bit less," said Tony Barnett, professor of medicine at the University of Birmingham.

And as if all this isn't confusing enough, a study earlier this month suggested that exercise, despite its many benefits, is not as important in avoiding obesity as is a better diet.

SOURCE: <http://www.livescience.com/health/090126-obesity-virus.html>

See also <http://en.wikipedia.org/wiki/AD-36>

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