

Your belly fat could be making you hungrier

April 16 2008

The extra fat we carry around our middle could be making us hungrier, so we eat more, which in turn leads to even more belly fat. Dr. Yaiping Yang and his colleagues at the Lawson Health Research Institute affiliated with The University of Western Ontario found abdominal fat tissue can reproduce a hormone that stimulates fat cell production. The researchers hope this discovery will change in the way we think about and treat abdominal obesity.

Yang identified that the hormone Neuropeptide Y (NPY) is reproduced by abdominal fat tissue. Previously, it was believed to only be produced by the brain. Yang believes this novel finding may lead to new therapeutic targets for combating obesity. Their findings were reported in a recent issue of *The FASEB Journal*.

The traditional view is that one of the main reasons why overweight people eat more food is because their brains produce the hormone NPY in excessive amounts. NPY is the most potent appetite stimulating hormone known, sending signals to the individual that they are constantly hungry. However, Yang, a Professor in the Departments of Obstetrics & Gynaecology and Physiology & Pharmacology at the Schulich School of Medicine & Dentistry at The University of Western Ontario, has provided evidence that in obese rat models NPY is also produced locally by abdominal fat.

A fat cell cannot replicate itself. But the researchers found NPY increases fat cell number by stimulating the replication of fat cell precursor cells, which then change into fat cells.

Yang says “this may lead to a vicious cycle where NPY produced in the brain causes you to eat more and therefore gain more fat around your middle, and then that fat produces more NYP hormone which leads to even more fat cells.”

Being overweight, regardless of where the fat is located, is unhealthy. However, because of its anatomical location and its byproducts, abdominal fat or the apple-shape is known to be the most dangerous. People predisposed to the apple shape are at an elevated risk for heart disease, Type 2 diabetes, hypertension and some cancers.

Next, the researchers will be investigating whether NPY produced by fat is released into the body’s circulatory system. “We want to know if NPY could potentially be transported in the blood to the brain where it in turn has an impact on the brain to stimulate feelings of hunger,” says Yang. If the researchers find that NPY is in fact transported in the blood circulation then it may be possible to develop a simple blood test to detect increased levels of NPY. “If you can detect NPY early and identify those at risk for abdominal obesity we can then target therapy to turn off NPY. It would be much easier to use drugs to prevent obesity than to treat the diseases caused by obesity.”

Source: University of Western Ontario

Citation: Your belly fat could be making you hungrier (2008, April 16) retrieved 25 April 2024 from <https://medicalxpress.com/news/2008-04-belly-fat-hungrier.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--