Cuttings from the media

MEDIA LITE

What happens when you eat 6200 calories for a week?

Six middle-aged men who were either normal weight or only slightly overweight ate approximately 6200 calories a day and were confined to hospital beds to limit physical exercise in a study to examine how obesity leads to diabetes.

How obesity promotes insulin resistance remains incompletely understood, so the researchers required participants to overeat for 1 week on a diet of ~50% carbohydrate, ~35% fat and ~15% protein.

There was an average weight gain of 3.5 kg and rapid onset of systemic and adipose tissue insulin resistance and oxidative stress after 2 to 3 days. In adipose tissue, the oxidative stress resulted in extensive oxidation and carbonylation of numerous proteins, which likely resulted in loss of GLUT4 activity. These results suggest that the initial event caused by overnutrition may be oxidative stress, which produces insulin resistance, at least in part, via carbonylation and oxidation-induced inactivation of GLUT4.

Huffington Post
09 Oct 2015

Weight loss surgery may not increase diabetes costs

Weight loss surgery could be an effective way of lowering blood glucose for many people with diabetes, not just those who are severely obese, a Swedish study has suggested.

In a group of over 4000 people, researchers found that for people with diabetes, the care costs for those who had had surgery and those who had not were roughly the same after 15 years. The cost of surgery was largely offset by less use of healthcare services and lower prescription drug costs, the study found.

Interestingly, those who had normal or slightly elevated blood glucose (but not diabetes) amassed higher costs, which included the operations and follow-up care, than similar individuals who did not have the procedures.

Reuters UK
23 September 2015

"Strongest" link so far between diabetes and cardio health

A large study conducted by Oxford University has shown that people who have high blood pressure are nearly 60% more likely to develop diabetes.

The researchers studied data from 4.1 million people who did not have diabetes and cardiovascular disease and followed them for a mean of 7 years. After this time, there were nearly 190 000 new cases of type 2 diabetes, and those with elevated blood pressure were at increased risk of diabetes. The strength of the association declined with increasing BMI and age. Further research is needed to know what effect anti-hypertensive medication would have on preventing people developing type 2 diabetes and whether the risk is modifiable.

The Guardian
29 September 2015

Diabetic blindness could be reversed

Injections of ranibizumab directly into the eye could improve eye sight compared to traditional treatments for people with proliferative diabetic retinopathy (PDR). This new treatment retained peripheral vision and improved central sight so that eye charts could be read more accurately.

Diabetes is one of the leading causes of blindness in the UK and, in the last year alone, there has been a 3.5% increase in the number of cases. The current standard treatment for PDR is laser surgery; however, this procedure can result in a loss of peripheral vision and difficulty seeing at night-time. Injection procedures need to be repeated every 3 months.

The Telegraph
14 November 2015

Lack of sleep linked to diabetes risk factors

People who get less that 6 hours of sleep a night may be more likely to have risk factors that increase their odds of diabetes, heart disease and strokes, a Korean study suggests.

In a 2-year study, those who got less than 6 hours sleep were 41% more likely to develop metabolic syndrome than those who got 6–8 hours sleep. "Short" sleepers should be aware of the risks of developing metabolic syndrome (high blood glucose, high cholesterol and extra central obesity), which could lead them to diabetes and cardiovascular complications.

Reuters
22 October 2015