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Obesity gene 'affects appetite'

Children carrying the first gene that has been clearly linked to obesity find it harder than others to tell when they are full, London-based researchers say.

They studied over 3,000 children to see whether the FTO gene impacts on the ability to burn calories or appetite.

The researchers found those with copies of the gene's risky variant were less likely to have their appetite "switched off" when they should be full.

The study is published in the Journal of Clinical Endocrinology & Metabolism. FTO is the first common gene to be linked to obesity in Caucasian populations. Previous studies have shown that adults with two copies of the higher risk version of the gene are on average 3kg (6lb 10oz) heavier, and those with a single copy are on average 1.5kg heavier, than those without the gene.

The researchers, from University College London and the Institute of Psychiatry, King's College London, set out to learn more about the way the gene works.

They tested whether children aged eight to 11 carrying the higher risk gene variation had an altered appetite through height, weight and waist circumference measurements, and a questionnaire which asked parents about their child's eating habits.

They found that children with the higher risk version of the gene tended to overeat and to struggle to recognise when they were full.

The effect of the gene on appetite was the same regardless of age, sex, socio-economic background and body mass index.

Lead researcher Professor Jane Wardle said: "It is not simply the case that people who carry the risky variant of this gene automatically become overweight, but they are more susceptible to overeating.

"This makes them significantly more vulnerable to the modern environment which confronts all of us with large portion sizes and limitless opportunities to eat."

However, Professor Wardle said the effect of the gene in isolation was relatively small.



Rates of obesity are on the rise

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Dr David Haslam
National Obesity Forum

She said it was likely that many genes contributed to obesity and appetite, each making a small contribution, but together creating a substantial effect.

Dr David Haslam, clinical director of the National Obesity Forum, said the research was "very interesting".

However, he said: "We are looking at a thousand-piece jigsaw and we have shown how the first two pieces fit together.

"It is a step in the right direction, but what we don't want to say is 'we have got the gene for obesity, therefore we can cure it' - that is not going to happen for many years to come."