Fatter than your siblings? It could be because you're older

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Your position in your family has been linked to a variety of outcomes later in life. It has been found that firstborn kids often grow taller, have a higher IQ and tend to be more conventional leaders. But not everything goes their way. They also tend to be more allergy-prone – and now, it seems – fatter too.

A study of more than 13,000 female sibling pairs in Sweden has found that although eldest girls are born slightly lighter than their secondborn sisters, they are about 30 per cent more likely to be overweight – and 40 per cent more likely to be obese – by their mid-twenties.

Because researchers can't intervene and change someone's birth order to see how that affects their weight, it's difficult to confidently draw conclusions about the causes, says co-author Wayne Cutfield from the University of Auckland in New Zealand.

Taller, smarter, larger

But the findings back up earlier work that found similar effects among men, and a smaller study by Cutfield looking at risk factors in boys and girls that might predispose them to metabolic problems as adults.

The sibling data came from the Swedish Birth Register, a database of physical and lifestyle

information collated on almost all Swedish mothers and their children. The researchers compared data on siblings' weights at birth and then again when they were 10 weeks pregnant, at which point the women were, on average, about 25.

They used the birth register because it provided large amounts of the data they needed. The fact that the women were in the early stages of pregnancy shouldn't cloud the data too much, says Cutfield, because the weight gain at 10 weeks is very small and fairly universal.

He thinks the effect is likely to be biological, and could be down to the inexperienced uteri of the women's mothers. The blood vessels that supply nutrients to the fetus seem to be slightly thinner in first pregnancies, and that seems to cause firstborns to be slightly lighter than secondborn babies, on average. That could mean those babies then overcompensate for their experience in the uterus by eating more.

Sibling rivalry

Gary Sacks of Deakin University in Melbourne, Australia, says it would be interesting to examine possible social causes. "Maybe the firstborn competes with the secondborn for food in the household. Maybe more money gets spent on the firstborn. I don't know, but I think environmental explanations could be explored," he says.

Cutfield says that because the women in the study were siblings, lots of environmental factors such as socio-economic background are automatically controlled for.

A proper understanding of what's driving the effect might help stem the obesity epidemic, says Anna Peeters of Baker IDI Heart and Diabetes Institute in Melbourne, Australia. If a lot of it comes down to how we treat our firstborns, then new parents could be educated to avoid inadvertently storing up problems for their children later on.