

Overweight mothers run greater risk of having hyperactive children

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If a woman is overweight when she becomes pregnant, the probability is much greater that her child will evince ADHD-like symptoms when he/she reaches school age, according to a new Nordic study. The investigation was carried out by Alina Rodriguez at Uppsala University in collaboration with international colleagues, and is available online in the *International Journal of Obesity*.

The study, comprising more than 12,500 children in Sweden, Finland, and Denmark, shows for the first time that there is a correlation between the mothers body mass index (BMI, weight in relation to height) at the time she becomes pregnant and symptoms like hyperactivity and concentration problems in the child.

“Many children are being diagnosed with ADHD and at the same time there is an epidemic of obesity in the world, with more and more women already overweight at the time they become pregnant. If it turns out that the mother’s weight is of significance and, together with other factors, can influence ADHD-like symptoms in the child, we have not only found a contributory cause but also a potential avenue for preventive work that can enhance the well-being of both mother and child,” says Alina Rodriguez at the Department of Psychology, Uppsala University, who is the lead author of the article.

The children were monitored from their time in the womb up to school age, when their teachers were asked to answer a questionnaire about the child’s behavior. Roughly one out of ten children had marked difficulties

with their attention span and with hyperactivity.

“How many of them actually have ADHD cannot be determined solely on the basis of the questionnaire responses, however,” explains Alina Rodriguez.

The correlation between mothers’ body mass index and child symptoms was found not only in those cases where the mother suffered from pronounced obesity but also in cases where the women were moderately overweight. Expectant mothers who were already overweight and moreover gained a considerable amount of weight during the course of the pregnancy ran a greater risk of having a child who would later show signs of ADHD than did women of normal weight who experienced the same weight gain during pregnancy.

The next step for these scientists is to study whether there is a causal connection between the mothers’ obesity and symptoms in the child and, if so, what this is due to. One plausible explanation is that the risk of complications during pregnancy is greater among overweight women. The fetus can also be affected by stress hormones from the mother, or by hormones or environmental toxins that are stored in the mother’s fatty tissue. It is also possible that both the mother’s obesity and the child’s symptoms are the result of genetic factors.

“It is important that women start off pregnancy at an optimal body weight. It has been well documented in recent years that mothers overweight is associated with increase risk for a number of complications both to herself and to her child. Our results could be yet another problem to add to the list. But it is not good to be extremely thin either,” says Alina Rodriguez.

Source: Uppsala University

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