

# Obesity during pregnancy linked to increased risk of babies born with abnormalities

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(PhysOrg.com) -- A Newcastle University study has shown that obese women who become pregnant have an increased risk of their baby being born with certain abnormalities, including spina bifida.

They found that women who were obese were more than twice as likely to have a baby with spina bifida, a condition which affects a very small number of pregnancies but which may result in disability.

Dr Judith Rankin from the team who carried out the study says, “Women who are thinking about trying for a baby need to check their own weight first and then think about seeking help if they are overweight. While you are pregnant it’s not the time to start a weight loss diet but it is more important to eat sensibly and healthily.”

Recent studies suggest up to a fifth of pregnant mothers are classed as obese in the UK - a figure that has doubled in the last 10 years.\*

In the United States, a third of women age 15 years and older were obese in 2004.

Obese is considered as a Body Mass Index (BMI) over 30, while overweight is classed as a BMI over 25, as categorized by the World Health Organisation.

The study, out today in the academic journal *JAMA*, analysed and combined data from 39 previous studies to look at the risks of

abnormalities in the baby for mothers who were obese or overweight.

It showed that obese women were nearly twice as likely to have a baby with neural tube defects which are caused by the incomplete development of the brain, spinal cord and/or their protective coverings. For one of those conditions, spina bifida, the risk was more than doubled.

Researchers also detected an increased risk in heart defects (cardiovascular anomaly), cleft lip and palate, a malformation of the lower bowel (anorectal atresia), increased risk of water on the brain (hydrocephaly) and problems in the growth of arms and legs (limb reduction anomaly).

For the first time, researchers found a possible link between mothers who are overweight and babies with neural tube defects, although they say more research needs to be done in this area.

“This is the first time that so many studies have been combined to build a more accurate picture and it shows a link between a mother’s weight and many of these serious conditions in the newborn baby. Given that we are seeing an increase in the number of people who are overweight or obese, then we may see an increase in the number of babies born with abnormalities”, says Dr Rankin.

Despite their findings, the researchers were keen to stress that these abnormalities are uncommon. “Spina bifida only occurs in approximately one in every two thousand births, so the risk, even among obese women, remains very low.”

The Newcastle University team will now continue the work to examine why there is a link between a mother’s weight and abnormalities in the baby.

Academic paper: Maternal Overweight and Obesity and the Risk of Congenital Anomalies. A systematic review and Meta-analysis.  
Katherine J. Stothard, PhD, Peter W.G Tennant, MSc, Ruth Bell, MD, Judith Rankin, PhD.

More information: *JAMA*. 2009;3016:636-650.

Notes:

\*There are no national published figures relating to pregnancy so this figure is based on a study published in 2006 in BJOG which showed 16% of women are obese at booking in Middlesbrough.

Provided by Newcastle University

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