Obesity During Pregnancy Raises Risk of Fatty Liver Disease in Kids

U.K. study finds that children of obese moms are more likely to develop non-alcoholic fatty liver disease (NAFLD) in their 20s.

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If your mother was obese while pregnant with you, then you're more likely to develop non-alcoholic fatty liver disease (NAFLD) in your 20s, according to U.K. researchers who presented their findings at the International Liver Conference 2021, spearheaded by the European Association for the Study of the Liver (EASL 2021).

In fact, as The Guardian reports, scientists found that grown children of obese moms had twice the risk of developing NAFLD by age 24 compared with children whose mothers were not obese during pregnancy. (Other factors such as smoking during pregnancy, social background and the mother's age were taken into account so the researchers could focus on obesity.)

NAFLD is the result of fat buildup in the liver. This excess fat can cause inflammation and advance to a form of hepatitis called non-alcoholic steatohepatitis (NASH). Hepatitis simply means an inflammation of the liver, but the condition can lead to cirrhosis (scarring of the liver), liver cancer and liver failure. NAFLD and NASH are fast becoming the most common liver diseases in the United States. (For more details, see Hep's Basics section on non-alcoholic fatty liver disease.)

The situation in the United Kingdom isn't any better, according to the country's National Health Service, which estimates that nearly one in three people have early-stage NAFLD, meaning they have small amounts of fat in their liver (a healthy liver has little to no fat).

To assess the possible influence of a pregnant person's obesity on the child's risk for NAFLD, the researchers looked at the liver scans of 2,961 people born in England who were enrolled in a study called Children of the 90s. As participants in the study, their data included information about their parents' body mass index (BMI).

In addition to finding that children of obese mothers had twice the risk of having NAFLD, the researchers noted that nearly 20% of the children of nonobese mothers had NAFLD, more proof that the condition is a growing health threat.

Kushala Abeysekera, a PhD candidate at the University of Bristol, stressed that the researchers

were not blaming the mothers for their children's elevated NAFLD risk. Instead, he told The Guardian: "What our study is saying is that maternal pre-pregnancy obesity is causing an early life effect to prime the [offspring's] livers to develop fatty liver, making them vulnerable to environmental hits such as a hyper-calorific diet, or a Western diet, which will increase their risk of developing more advanced liver disease."

Indeed, the researchers also found that obese fathers increased children's risk for NAFLD. The link, however, was smaller than that between obese mothers and children, prompting scientists to wonder whether the problem originates in the womb.

More research is needed to fully understand whether obese mothers and fathers raise the likelihood that their children develop NAFLD and how, exactly, that plays out.

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