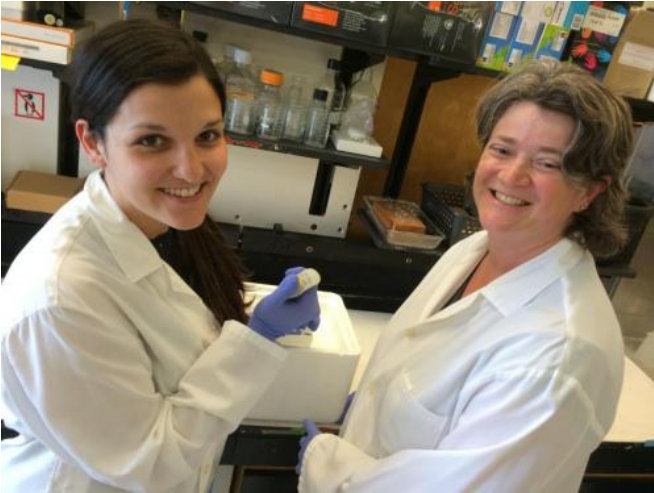


Antidepressant use during pregnancy may lead to childhood obesity and diabetes

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From left: PhD student Nicole De Long and Alison Holloway, associate professor of obstetrics and gynecology at McMaster University (2014)

Women who take antidepressants during pregnancy may be unknowingly predisposing their infants to type 2 diabetes and obesity later in life, according to new research from McMaster University.

The study finds a correlation between the use of the medication fluoxetine during pregnancy and an increased risk of obesity and diabetes in children.

Currently, up to 20 per cent of woman in the United States and approximately seven per cent of Canadian women are prescribed an antidepressant during pregnancy.

"Obesity and Type 2 diabetes in children is on the rise and there is the argument that it is related to lifestyle and availability of [high calorie foods](#) and reduced physical activity, but our study has found that maternal antidepressant use may also be a contributing factor to the obesity and diabetes

epidemic," said the study's senior investigator Alison Holloway, associate professor of obstetrics and gynecology at McMaster University.

Previous studies have found that pregnant women are particularly vulnerable to depression and it is estimated that up to one in five [pregnant women](#) have symptoms of depression during pregnancy.

"While it is known that these drugs can increase the risk of obesity in adults, it is unknown whether a woman's antidepressant use during pregnancy increases the risk of metabolic disturbances in her children," Holloway says, adding the goal of their project was to determine whether maternal exposure to a commonly used antidepressant is related to the development of fatty liver, an outcome commonly seen with obesity, in the offspring.

"We have demonstrated for the first time in an animal model that maternal use of a class of [antidepressants](#) called selective serotonin reuptake inhibitors, or SSRIs, resulted in increased fat accumulation and inflammation in the liver of the adult offspring, raising new concerns about the long-term metabolic complications in children born to women who take SSRI antidepressants during pregnancy," says PhD student Nicole De Long, who presented this research on June 22nd at the joint meeting of the International Society of Endocrinology and The Endocrine Society.

Their study does not suggest women should avoid taking antidepressants during [pregnancy](#), only that there may be risks associated with antidepressants that haven't been previously identified, Holloway says.

"The benefit of the study is it may help in the identification of a high-risk group of children who may require specific interventions to prevent [obesity](#) and [type 2 diabetes](#) later in life," she says.

The next stage of their research will be to understand the mechanistic pathways behind why these drugs pose a risk. "If we can understand how the antidepressant causes adverse metabolic outcomes in the offspring than we can design therapeutic strategies to prevent the damage while allowing [women](#) who require these drugs to be treated but reduce the potential harm to the offspring."

Provided by McMaster University

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