

Obesity may play role in reproductive problems in women with type 1 diabetes

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Obesity may play a role in reproductive problems in women with type 1 diabetes, according to a new study to be presented Saturday, March 23 at ENDO 2019, the Endocrine Society's annual meeting in New Orleans,

La.

Earlier studies have shown that type 1 [diabetes](#) is associated with menstrual irregularities and lower rates of fertility.

"Women with type 1 diabetes remain at risk of significant reproductive problems despite improvements in current therapies, and this may be partly explained by the high prevalence of obesity in this group," said lead researcher Eleanor Thong, M.B.B.S., of the Monash Centre for Health Research and Implementation in Clayton, Australia.

The researchers analyzed data from the large community-based Australian Longitudinal Study in Women's Health (ALSWH), a national study funded by the Australian Department of Health. A total of 23,752 [women](#) aged 18-23 and 34-39 were included in the study. Of these women, 162 had type 1 diabetes. The researchers found 24 percent of women with type 1 diabetes were obese, compared with 16 percent of those without diabetes. Another notable finding was that one in four women with type 1 diabetes were current smokers, compared to one in six controls.

Menstrual irregularities were seen in 47 percent of those with type 1 diabetes, compared with 35 percent of those without the disease. Polycystic ovary syndrome (PCOS) was found in 14 percent of those with diabetes, compared with 5 percent in those without the disease. Women with PCOS produce higher-than-normal amounts of male-type hormones. This hormone imbalance causes them to skip menstrual periods and makes it harder for them to get pregnant.

Menstrual irregularity was associated with increased body mass index (BMI), [high blood pressure](#), smoking and PCOS in this cohort.

In women with prior pregnancies, those with type 1 diabetes experienced

significantly more miscarriages (46 percent compared with 33 percent of those without diabetes) and stillbirths (7 percent versus 1 percent). There was no difference in pregnancy rates.

"Despite universal healthcare and improved diabetes management, the risk of miscarriages and stillbirths remain elevated in women with type 1 diabetes. Increased BMI may play a role in the development of PCOS, menstrual and reproductive problems. Furthermore, smoking is associated with an increased risk of menstrual disorders and miscarriage in this cohort," said co-author Professor Helena Teede, M.B.B.S. Ph.D., of the Monash Centre for Health Research and Implementation. "Pre-conception care and counseling in reproductive-aged women with type 1 diabetes, including weight management and smoking cessation, is imperative to minimize complications in pregnancy."

Provided by The Endocrine Society

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