

Effects of physical exercise during pregnancy on maternal and infant outcomes in overweight and obese pregnant women: A meta-analysis

Maternal obesity is associated with significant complications for both mother and child. The risk of developing gestational diabetes is one of the most common obesity-related pregnancy complications and it increases significantly with increases in pre-pregnancy body mass index (BMI). Compared with non-overweight women, the risk of gestational diabetes in women with overweight increases more than 2-fold, and in women with obesity and severe obesity 3.5-fold and 8.5-fold, respectively. Women with overweight are at higher risk of adverse outcomes during the gestational and delivery periods, cardiovascular diseases, and higher rates of caesarean delivery and stillbirth.

Pregnant women are still encouraged to engage in physical activity (PA), albeit at lower frequencies and with slight modifications. Yet there is no universal consensus on whether PA alone during pregnancy can improve maternal and infant outcomes in pregnant women.

Five databases were searched for studies examining gestational weight gain and the risk of diabetes. As secondary outcomes, the risk of gestational hypertension, early birth, preeclampsia, and caesarean delivery was also observed. From 13 studies included in the analysis, it was concluded that PA during pregnancy reduces gestational weight gain by 1.14kg and the risk of gestational diabetes by 29% in women with a higher BMI. Consistent with other studies, differences in other outcomes observed such as birthweight were not observed.

The findings reinforce yet again, the importance of prenatal exercise interventions, including the maintenance of exercise regimes during pregnancy. More research is needed to better understand the short- and long-term effects of exercises on maternal and infant health, including the effect of different types of exercise women with overweight or obesity.

Du, M., Ouyang, Y., Nie, X., Huang, Y. and Redding, S., 2018. Effects of physical exercise during pregnancy on maternal and infant outcomes in overweight and obese pregnant women: A meta-analysis. Birth, 46(2), pp.211-221.