Obesity has become an increasingly important public health concern. Studies have shown that obesity has an effect on a wide range of health outcomes including those related to pregnancy. Research has shown that pre-pregnancy obesity can increase the risk of gestational diabetes, infertility, infant mortality, and congenital anomalies (also known as birth defects). However, when looking at studies that look at the effect of obesity in mothers on birth defects, results are often complex and contradictory.

This happens for two main reasons. First, when they look at birth defects, they often look at a whole organ system (like the heart) as opposed to individual specific birth defects. This is important because not all birth defects are the same, and they have different causes. Another reason it is sometimes hard to make sense about the effect of obesity on birth defects is because studies do not use a consistent classification of the levels of obesity, which makes it difficult to compare across studies. This study looked at the association between specific birth defects using information from the state-wide Florida Birth Defects Registry on 26 different conditions.

Researchers looked at over one million births in the state of Florida. They found that women who had a child with one or more birth defect were more likely to have been obese prior to becoming pregnant. Overweight women were more likely to have children born with 6 different specific birth defects, including having been born with more than one. In addition, they found that for four specific birth defects, the more obese a woman was before becoming pregnant the greater the odds of her child being born with a defect, something called a dose-response relationship. What this means, is that as the pre-pregnancy weight of a woman increases the risk of having a child with one of four different birth defects goes up in direct relationship to her weight.

This research has allowed us to know with better precision which birth defects may be affected by obesity. It also is another reason why reducing obesity among the general population is still a public health priority, as the health of both mothers and babies can be directly affected. Reducing the pre-pregnancy weight of women prior to becoming pregnant can reduce the chance of having a baby born with a birth defect.

Reference: