# Does maternal obesity increase the risk of preterm delivery?

**Yes.** The rate of preterm delivery increases with body mass index (BMI, as assessed in early pregnancy), according to this population-based study of more than 1.5 million women. For example, the rate of extremely preterm delivery (22–27 weeks) ranged from 0.17% among women of normal weight (BMI of 18.5–24.9 kg/m$^2$) to 0.52% among women with a BMI of 40 kg/m$^2$ or greater.

*Cnattingius S, Villamor E, Johansson S, et al. Maternal obesity and risk of preterm delivery. JAMA. 2013;309(22):2362–2370.*

**EXPERT COMMENTARY**

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FAST TRACK

**The rate of delivery at 22 to 27 weeks' gestation ranged from 0.17% among women with a BMI of 18.5 to 24.9 kg/m$^2$ to 0.52% among women with a BMI of 40 kg/m$^2$ or greater**

The developed world is in the midst of an unprecedented increase in human body mass. This increase can be attributed to widespread access to large amounts of inexpensive calories—particularly carbohydrates—and diminishing physical exertion. We have "evolved" from creatures struggling to get enough food to survive to vertebrates drowning in an ocean of calories and ease.

Although obesity clearly lies on the causal pathway for diseases such as diabetes and endometrial cancer, it also is associated with many other unhealthy behaviors and exposures. For example, obese women tend to earn less money, achieve less in school, smoke, and live farther away from markets and playgrounds—and the list of confounders goes on and on. We can measure height and weight with ease and precision, but we can't assess and quantify most of these other confounders.

Cnattingius and colleagues give us another "obesity is bad" paper, this time with the outcome of preterm delivery. They found not only an association between obesity and preterm delivery but also a "mass response effect"—that is, the association increased along with maternal BMI.

The magnitude of the associations was small (odds ratios <3.0 for preterm delivery among overweight and obese women, compared with women of normal weight), and despite valiant efforts by the investigators to control for confounding, the imprecision I mentioned above limits their findings.

I declared a personal moratorium on reading "obesity is bad" papers a few years back. Even if obesity is a real risk factor for poor perinatal outcomes and not a proxy for residual confounding, we still have no idea, short of invasive surgery, how to modify that risk. Real progress will require effective lifestyle intervention—and we know so little about how to get people to lead healthy lives. It is difficult enough to modify our own behavior (recall your New Year's resolutions), even harder to motivate our patients to lose weight and exercise.

*The author reports no financial relationships relevant to this article.*

## WHAT THIS EVIDENCE MEANS FOR PRACTICE

Obesity is at best a weak risk factor for preterm delivery. Unless you are more successful than I have been at getting women to modify their diet and exercise, I would not make heavy mothers feel any worse.

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