Hormonal Contraceptives Have Mixed Success Among Overweight Women

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As obesity continues to be a worldwide health risk, one of its “side effects” could include less effective birth control for overweight and obese women who use hormonal contraceptives.

Four of seven studies examined in a recent research review comprising 39,531 women suggest that the heaviest women have the highest risk of pregnancy while using the contraceptives. Yet a closer look at the studies, the review authors say, reveals a more complicated picture.

In one study of oral contraceptive pills, women with a body mass index (BMI) in the overweight range (a BMI of 25 or more) had a higher risk of pregnancy than those in the normal weight range. In another study of contraceptive skin patches, higher body weight — not higher BMI — was associated with higher risks of pregnancy.

Other contraceptives such as injectable or implantable hormones might “be unaffected by body mass,” said lead author Laureen Lopez, Ph.D., of FHI, global health and development organization.

The review appears in the current issue of The Cochrane Library, a publication of The Cochrane Collaboration, an international organization that evaluates research in all aspects of health care. Systematic reviews draw evidence-based conclusions about medical practice after considering both the content and quality of existing trials on a topic.

Many researchers think that metabolic changes associated with obesity — in particular, the amount of body fat — could make hormonal birth control less effective. “However, we know little about how overweight women metabolize hormonal contraceptives,” said Lopez, “since many studies exclude overweight women.”

In the few reports that did include overweight and obese women, some studied overall body weight and others studied BMI, which could affect pregnancy risk in different ways. For instance, BMI studies tend to focus on how body fat might interfere with contraceptive metabolism, while studies of body weight might examine whether a larger woman needs a larger dose of the contraceptive, the authors say.

Women who are obese or overweight also should consider potential health risks from hormonal contraceptives, said Amitasrigowri Murthy, M.D., who directs the reproductive choice program at Bellevue Hospital Center in New York.

Some studies show that estrogen-based contraceptives can increase the risk of heart attack, blood clots, high blood pressure and gallbladder disease in obese women, “who are already at increased risk for these conditions,” Murthy said.

Seeking alternatives, some women turn to progesterone-based contraceptives such as the injectable Depo-Provera, Murthy said, “but if you are already overweight or obese, you should know that there is a risk of weight gain in the first year of taking it [Depo-Provera].”

Health-care workers will need better studies to help them guide women as they choose a method of contraception, Lopez and colleagues say: “Given the prevalence of overweight and obesity, the public health impact of any effect on contraceptive efficacy could be substantial.”

“The contraceptive methods studied here are still among the most effective when used as recommended,” said Lopez. “Moreover, pregnancy is much riskier for women who are obese compared with women of normal weight.”

More information: Lopez LM, et al. Hormonal contraceptives for contraception in overweight or obese women. The Cochrane Database of