

Birth control that uses combined hormones raises heart risk: study

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Overall odds of heart attack and stroke, however, are still low.

(HealthDay) -- Sweeping new research comparing various forms of hormonal contraception -- including birth control pills, vaginal rings and skin patches -- suggests that the risk for heart attacks and strokes is twice as high among users of combined estrogen-progestin versions.

These include brands such as Yasmin and Yaz pills, the NuvaRing vaginal ring and Ortho Evra patches. The overall odds of suffering such debilitating effects, however, are still quite low.

Analyzing 15 years of [observational data](#) from more than 1.6 million women aged 15 to 49, Danish scientists found that those taking low-dose estrogen [birth control pills](#) combined with various progestins suffered heart attacks and strokes between 1.5 and 2 times more often than women not using hormonal contraception. The risks were between 2.5 and 3 times higher among users of vaginal rings and transdermal patches

compared to non-users.

"The first point to take home is that [clotting] complications increase dramatically with increasing age," said lead author Dr. Ojvind Lidegaard, a clinical professor of [obstetrics and gynecology](#) at Rigshospitalet, a state-run hospital in Copenhagen. "A doubled risk for thrombotic stroke is not very serious when you are 20 years old, because your risk at baseline is very low. On the other hand, when you are 35 years old or older, the risk is no longer that low, and you should be more careful with choosing those products with the lowest risk of thrombotic complications."

The study is scheduled to be published June 14 in the [New England Journal of Medicine](#).

The link between combined estrogen-progestin [oral contraceptives](#) and [blood clots](#) occurring in either veins or arteries has been studied continually since the formulations were marketed in the 1960s, with estrogen doses lowered in many products in response to research showing increased vascular risks.

The U.S. [Food and Drug Administration](#) announced in April that [birth control](#) pills containing drospirenone -- a man-made version of the hormone progesterone included in products such as Bayer's Yaz or Yasmin -- would require updated labels since these contraceptives may be linked to a higher risk of blood clots. That change pinpointed risks associated with blood clots in veins, however, while the new Danish study focuses on clot risks in arteries.

"Pills are still very beneficial. I wouldn't want a study like this ... to tell us these are dangerous drugs," said Dr. Kathleen Hoeger, chief of the division of reproductive endocrinology and director of the Strong Fertility Center at the University of Rochester, in New York. "The drugs

have risks, and those risks are really well-defined. This data gives doctors a lot of confidence to be able to offer advice."

The study encompasses data from the entire population of Danish women of childbearing age, and was 10 times as large as a similar study in the United States that also assessed the comparative risks of arterial clots among hormonal contraceptive users, said Hoeger, who served on the FDA advisory panel that reviewed Yaz and Yasmin.

Significantly higher rates of heart attack and stroke, which result from clots in arteries, were recorded among women with diabetes and high blood pressure and among those over age 35. The relative odds of suffering a [heart attack](#) doubled among those aged 40 to 44 compared to those aged 35 to 39, and increased by an additional one-third thereafter.

Dr. Diana Petitti, a professor of biomedical informatics at Arizona State University in Tempe, said she was struck by the finding that different formulations of progestin didn't dramatically affect the safety profiles of the various hormonal contraceptives studied.

"From the standpoint of arterial vascular disease, the combined [formulations] are essentially equivalent," said Petitti, who wrote an editorial accompanying the study. "Decision-making should focus more on effectiveness and adherence and not on miniscule differences in the potential for vascular disease. All of the current products on the market are safe enough."

More information: The U.S. National Library of Medicine has more about [oral contraceptives](#).

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