

April 6, 2021

## Does Aspirin Help Prevent Preeclampsia?

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A low dose of aspirin may prevent preeclampsia during pregnancy, according to research published in the *New England Journal of Medicine* in 2017.

“Preterm preeclampsia can be prevented by taking a 150 mg regular dose of aspirin during the first trimester (11-14 weeks) and continuing until the mid-third trimester (36 weeks),” said Dr. Kypros Nicolaides, one of the key authors.

Preeclampsia is a severe life-threatening condition for the mother and baby that usually develops during the third trimester. It is characterized by high blood pressure, elevated protein content in urine, severe headaches, and other symptoms.

Researchers have conducted trials about the use of aspirin for preventing preeclampsia since 1979. The results of one of the first clinical trials suggested that women at high risk for preeclampsia had reduced effects of the condition after taking aspirin.

Since then, numerous clinical trials have been conducted wherein varying dosage amounts, 50-150 mg of aspirin, were used to study which dosage might be the most effective to prevent this condition from occurring.

This newer clinical trial, published in 2017, was a double-blind, randomized, placebo-controlled trial conducted at 13 maternity hospitals across Europe and Israel. The women chosen for the study had a high risk of preterm preeclampsia.

A total of 1620 women participated in the trial; 798 received 150 mg of aspirin, and 822 received the placebo. In addition to the typical pregnancy monitoring, the researchers also measured two placental hormones during the trial.

During pregnancy, a baby gets nutrients from the mother through the placenta. Preeclampsia can prevent the placenta from getting enough blood, reducing oxygen supply and food to the baby, leading to low birth weight and other complications.

In the study, the women recorded any side effects they experienced after taking the medication. Researchers followed up regularly with telephone interviews. The trial's key outcome was that preeclampsia occurred in 13 women in the aspirin group, whereas almost three times the number of women in the placebo group experienced preeclampsia. Also, no adverse effects or events occurred during the trial period.



*A low dose of aspirin may help prevent preeclampsia. Photo Credit: Unsplash*

Based on these new trial findings, Dr. Nicolaides concluded that preterm preeclampsia could be prevented if aspirin is taken during the late first trimester. One of the other essential conclusions of this trial is that a 150 mg dose of aspirin could effectively prevent the condition, whereas 81 mg may not help prevent it.

According to the American College of Obstetricians and Gynecologists (ACOG), preeclampsia is a severe high blood pressure condition that can affect multiple organ systems. If not detected and treated, it can cause serious harm to the mother and baby. That is why prenatal OB-GYN and regular office visits are essential in pregnant women to detect any conditions early on and prevent them.

Who is at risk for preeclampsia?

- Women who have had preeclampsia in an earlier pregnancy
- Women who have chronic high blood pressure
- Women carrying multiple babies
- Obese women who have a BMI > 30

Nicolaides suggests that preeclampsia is, “to a great extent, preventable.” However, further research is needed before any clinical recommendations can be made. Pregnant women and those trying to conceive should consult with their health professionals before taking any medication.

## Reference

Rolnik D, Poon L, O’Gorman N, et al. [Aspirin versus Placebo in Pregnancies at High Risk for Preterm Preeclampsia.](#) *N Engl J Med.* 2017;377:613-622