

Study shows progesterone fails to prevent preterm birth in high risk group

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(Medical Xpress)—A formulation of the hormone progesterone, shown to be effective in women at risk for another preterm birth because they had a prior preterm birth, was not found to be effective in preventing preterm birth for women in their first pregnancy who have a short cervix, according to a National Institutes of Health network study.

Each year, 1 in 8 infants is born preterm in the United States. [Preterm birth](#) increases an infant's risk of death and survivors' risk of short- and long-term complications such as breathing and [vision problems](#), learning disabilities and cerebral palsy.

In February 2011, the U.S. [Food and Drug Administration](#) approved the use of 17 alpha-hydroxyprogesterone caproate (17P), a synthetic form of [progesterone](#), to reduce the chances of [preterm birth](#) in women pregnant with a single fetus who had delivered a single infant early in a previous pregnancy.

Like preterm delivery in a previous pregnancy, a short cervix in the second trimester is a known risk factor for preterm birth. The cervix is part of the neck of the uterus, which becomes shorter as labor approaches.

For the current study, the researchers assessed whether 17P given to first-time mothers found to have a short cervix would prevent delivery before 37 weeks of gestation. In this study, short cervical length was defined as a cervical length at or below the 10th percentile (30 millimeters or less).

The study was published online and in print in *The American Journal of Obstetrics and Gynecology*.

More than 600 women participated in the study. The women were assigned at random to receive either 17P or a placebo. The researchers found that rates of preterm birth were about the same among women who received a weekly injection of 17P and those who received a placebo.

"There are many pathways that lead to preterm birth. Studying each at [risk group](#) alone allows us to identify which treatments are effective in specific situations. While 17 P has been shown to be effective at reducing preterm birth in one group of at risk women, it was not effective to prevent preterm birth in women in their first pregnancy whose cervix is at or less than the 10th percentile," said study co-author Catherine Y. Spong, M.D., Associate Director for Extramural Research at the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), the institute that funded the study. "This study shows the need to test 17 P among the different categories of women at risk for preterm delivery, rather than assuming that because it was shown to be effective in one group, that it would be effective in another."

Provided by National Institutes of Health

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