

Study finds some medications may interact with common anti-recurrent preterm birth medication

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In a study to be presented today at the Society for Maternal-Fetal Medicine's annual meeting, The Pregnancy Meeting, in Dallas, Texas, researchers will report findings that indicate that prescription medications may affect the body's ability to metabolize 17-alpha-hydroxyprogesterone caproate (17-OHPC), the only FDA approved medication for the prevention of recurrent preterm birth.

While 17-OHPC is routinely prescribed, much is still unknown about how it works. Studies have shown a large variation in the concentration of 17-OHPC present in women treated with the standard dose of the medication. It is known that 17-OHPC is metabolized by the CYP3A4 enzyme, which is also responsible for the metabolism of many [prescription medications](#). This study, Effect of Prescription Medications on 17-Alpha-Hydroxyprogesterone Caproate (17-OHPC) Metabolism, sought to determine whether prescription medications can alter the metabolism of 17-OHPC and contribute to the variability of 17-OHPC concentration observed in women taking the same dose.

"We conducted an in vitro experiment to examine the effect of 25 different prescription medications on the metabolism of 17-OHPC. Over half of the drugs inhibited 17-OHPC metabolism by 50 percent or more," said Courtney Cuppett, MD, with the Magee-Womens Hospital, University of Pittsburgh, [Maternal Fetal Medicine](#), Pittsburgh, Pa., and one of the study's authors. "This indicates that prescription medications

may indeed affect 17-OHPC metabolism."

The findings indicate that if a therapeutic level is defined for 17-OHPC, doses may have to be adjusted if certain other medications are also being taken. Whether or not there is a converse interaction with 17-OHPC inhibiting the [metabolism](#) of prescription medications requires further exploration.

The study, conducted by Cuppett and Yang Zhao and Raman Venkataramanan, University of Pittsburgh, School of Pharmacy, Pittsburgh, Pa., and Steve Caritis with Magee-Womens Hospital, University of Pittsburgh, Maternal Fetal Medicine, Pittsburgh, Pa., was supported by a National Institute of Child Health and Human Development Obstetric-Fetal Pharmacology Research Unit Network grant.

More information: A copy of the abstract is available at www.smfmnewsroom.org/annual-meeting-abstracts/

Provided by Society for Maternal-Fetal Medicine

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