

Diabetes Drug Delivers New Use For Pregnant Women

By ACSH Staff — December 22, 2015



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Metformin is antidiabetic medication and is the firstline drug for those with type 2 diabetes. But might it be useful for other conditions? According to a new [study](#) [3] in the *American Journal of Obstetrics and Gynecology* it may have a role in treating preeclampsia.

Preeclampsia is a condition of pregnancy that is characterized by high blood pressure and organ damage, particularly kidney damage. It usually occurs later in pregnancy, most commonly after 20 weeks. Left untreated, the condition can be fatal to mother, baby, or both. In fact, according to the study's authors, 100 women and 400 fetuses, die everyday worldwide due to preeclampsia. The only cure currently for this condition is delivery, but this may not always be an option, particularly if the fetus is not yet viable.

The exact etiology of preeclampsia is not fully known, however, recent work has shown it may be a disease of endothelial cells that line blood vessels. For some unknown reason, two proteins soluble vascular endothelial growth factor receptor 1 and soluble endoglin become elevated. At these elevated levels, the proteins become toxic to the endothelial cells in the placenta, and these cells begin to die, which leads to the complications of the disease.

The findings of this latest study, done by researchers at Mercy Hospital for Women and the University of Melbourne in Australia, show that metformin can reduce the levels of these proteins to safer, nontoxic levels. Furthermore, the study shows that the drug also helps heal the injured endothelial cells. The study was preformed in a laboratory setting with human cultured cells, but the researchers believe that their results warrant tests on pregnant women.

Many may worry about metformin's effects on a developing fetus but [previous work](#) [4] has shown the drug can be delivered safely to pregnant women. In particular, studies on women with polycystic ovarian syndrome (PCOS) have shown that metformin posed little threat to the fetus, while also showing added benefits to the mother. In particular, a reduced risk of gestational diabetes and gestational hypertension.

The fact that metformin is already approved for treatment here in America, gives hope that this

drug could be available for preeclampsia quickly, but according the journal's editor this might not be the only future use of the drug. Dr. Roberto Romero, MD noted that "Metformin appears to be the aspirin of the 21st century, because the drug has been discovered to have unexpected health benefits not only in diabetes, but also in polycystic ovarian disease and recent work has highlighted its anti-cancer properties,"

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