

Effectiveness of influenza vaccine for pregnant women may differ by trimester

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In a study to be presented on Feb. 5 in an oral concurrent session at the Society for Maternal-Fetal Medicine's annual meeting, The Pregnancy Meeting, in Atlanta, researchers will present findings from a study titled, T-follicular helper (Thf) cell expansion varies by trimester after influenza vaccination in pregnancy.

The Centers for Disease Control recommends that all pregnant women get a flu shot, unless they have already been vaccinated over the past year. Cautioning that "Flu is more likely to cause severe illness in pregnant women than in healthy women who are not pregnant," the CDC website recommends that pregnant women may safely get the shot during any [trimester](#).

In the study to be presented, researchers found that the T-follicular helper cell response to vaccination is greatest during the first trimester of [pregnancy](#). Vaccine immunology is poorly understood in pregnancy and Tfh [cell expansion](#) has been shown to be a predictor of response to influenza vaccination outside of pregnancy.

The researchers studied 36 pregnant women during flu season in 2012 to 2014. They administered inactivated [influenza vaccine](#) and blood samples were collected pre-vaccination and 14 days later. The influenza specific T-follicular helper cell response varied based on trimester of pregnancy in which the vaccine was given.

"The study results suggest that immunological changes during pregnancy

may affect the response to the vaccination," stated Emily Patel, M.D. with Duke University. Dr. Patel is one of the researchers and the presenter of the study. "Future studies will lead to a better understanding of vaccine immunology and how [pregnant women](#) respond to antigen exposure through the course of their pregnancy," added Patel.

Provided by Society for Maternal-Fetal Medicine

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