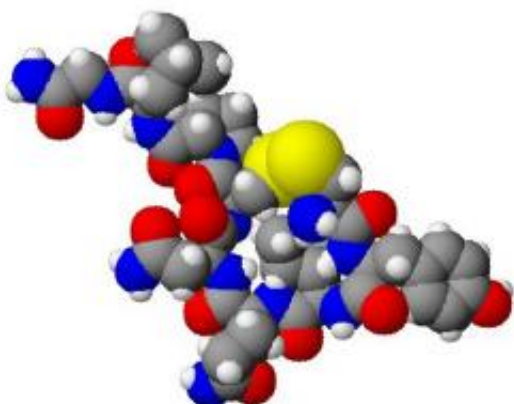


# Oxytocin level in pregnancy predicts postpartum depression severity

March 23 2016

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Spacefilling model of oxytocin. Created using ACD/ChemSketch 8.0, ACD/3D Viewer and The GIMP. Credit: Wikipedia.

Higher oxytocin levels in the third trimester of pregnancy predicts the severity of postpartum depression symptoms in women who previously suffered from depression, reports a new Northwestern Medicine study.

The small study of 66 women indicates the potential for finding biomarkers to predict [depressive symptoms](#) postpartum.

"It's not ready to become a new blood test yet," stressed lead investigator Dr. Suena Massey, assistant professor of psychiatry and behavioral sciences at Northwestern University Feinberg School of Medicine and a

Northwestern Medicine psychiatrist. "But it tells us that we are on the track to identifying biomarkers to help predict postpartum depression."

The link between depressive symptoms and higher level of oxytocin surprised Massey. She had expected it to be associated with lower oxytocin.

"There's emerging research that a past history of depression can change the oxytocin receptor in such a way that it becomes less efficient," Massey said. "Perhaps, when women are starting to experience early signs of depression, their bodies release more oxytocin to combat it."

The paper was published March 8 in *Archives of Women's Mental Health*.

Scientists recruited 66 pregnant healthy women who were not depressed. They measured [oxytocin levels](#) in the third trimester and depression symptoms six weeks postpartum. Of that group, 13 of the women had a prior history of depression before the pregnancy. Among these women, the higher their oxytocin levels, the more depressive symptoms they experienced at six weeks.

Symptoms included waking up too early in the morning and not being able to get back to sleep, more worrying or anxiety, more aches and pains, headaches, changes in bowel patterns, feeling tired or a sense of heaviness, changes in appetite and feeling sad.

Oxytocin is a hormone that has many functions in the body including delivery and lactation, social bonding, mother-child bonding and stress management.

Many mothers with postpartum depression feel that they are failing, Massey said, because they believe they should be happy.

"This decreases the likelihood that they will seek or accept help," Massey said. "If we can identify the women during pregnancy who are destined to develop postpartum depression, we can begin preventive treatment."

Obstetricians routinely screen for non-psychiatric complications of childbearing such as gestational diabetes, using readily available biomarkers. The same should be true for pregnancy-related depression, Massey said.

"In light of the far reaching consequences of untreated [postpartum depression](#) to women and their children, the ability to predict which individuals are at greatest risk for developing it yields the exciting possibility for prevention," Massey said.

Provided by Northwestern University

Citation: Oxytocin level in pregnancy predicts postpartum depression severity (2016, March 23) retrieved 4 May 2024 from

<https://medicalxpress.com/news/2016-03-oxytocin-pregnancy-postpartum-depression-severity.html>

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