



- Most people giving birth receive a medication called oxytocin either during labor/ after birth.
- Oxytocin causes the uterus to contract.
- We are studying why oxytocin may work better for some people than others, leading to easier labor or less bleeding postpartum.



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PARTO

Predicting Adequate Response To Oxytocin

Study

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WHY is this study being done?

Some individuals giving birth have longer or more difficult labors than others or will have severe bleeding after birth, called postpartum hemorrhage. The goal of this study is to understand why oxytocin, a medication used to cause uterine contractions, works better in some people than others.

WHAT does oxytocin do?

Oxytocin helps to speed up labor and to prevent hemorrhage after birth, but it does not work equally well in all people. With this research, we hope to better predict who will experience more complicated births than others and find new ways of preventing or treating these problems.

WHO is conducting the study?

Dr. Elise Erickson, PhD is a researcher, Certified Nurse-Midwife and Assistant Professor at the University of Arizona College of Nursing. She has been a nurse-midwife since 2005 and researching oxytocin use in labor since 2014. She has observed in prior studies that genetic and epigenetic differences were related to how much oxytocin was needed during labor and how much postpartum bleeding people experienced.

HOW LONG does the study take?

The study activities should take 20-30 minutes after enrollment.

WHAT are participants asked to do?

Dr. Erickson is asking pregnant participants to contribute a cheek swab and single sample of saliva between 38-41 weeks of pregnancy that will be used to study genetic and epigenetic information. Participants will also be asked to complete a survey about their current pregnancy, feelings about their health and environment including feelings about stress. Women planning a C-section are asked to provide a small bit of tissue from the incision after delivery. This is to study how oxytocin affects the uterus (womb) directly.

Is there any compensation?

Participants will receive a \$25 gift card, with an additional \$25 if donating a tissue sample.

WHAT is genetic information?

Genetic information is stored in the body as DNA code. DNA tells the body to make certain features like height, blood type or eye color. This code is hereditary, or passed on from parents to children. The DNA code that tells the body to how to use oxytocin is slightly different from person to person. We are studying if these differences are related to better oxytocin responses during childbirth.

WHAT is "epigenetics"?

Epigenetics are differences in how easily DNA can be used or how it is stored in the cell. Some epigenetic changes make it harder for the body to use a specific gene/DNA code. For example, if less DNA is available for letting oxytocin work, it might affect how well the body responds to the medication.

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An Institutional Review Board responsible for human subjects research at The University of Arizona reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.



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