

# Study: Baby's Sex Plays a Role in Pregnant Women's Immunity

*Women pregnant with girls have more severe symptoms of some health conditions*

*The Ohio State University Wexner Medical Center*

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## NEWS PACKAGE

<b>SUGGESTED TEASE</b>	<p>THERE ARE ALL KINDS OF THEORIES THAT PREDICT WHETHER A PREGNANT WOMAN IS HAVING A BOY OR A GIRL.</p> <p>AND THEY'RE NOT ALL JUST WIFE'S TALES. COMING UP, A NEW STUDY PUTS SOME SCIENCE BEHIND THE SPECULATION.</p>
<b>ANCHOR LEAD</b>	<p>EVERY PREGNANT WOMAN HAS HEARD THEORIES ABOUT THE SEX OF HER BABY.</p> <p>SOME SAY THEY CAN TELL IF A WOMAN IS HAVING A BOY OR GIRL, SIMPLY BASED ON THE FOODS SHE CRAVES OR HOW SHE LOOKS.</p> <p>BUT A NEW STUDY IS PUTTING SOME SCIENCE BEHIND THE SPECULATIONS.</p> <p>CLARK POWELL HAS MORE ON WHY WOMEN CARRYING <i>GIRLS</i> MAY SHOW DIFFERENT IMMUNE RESPONSES TO ILLNESS.</p>
<b>(PACKAGE START) -----</b>	
<b>CG: Courtesy: The Ohio State University Wexner Medical Center</b> <b>:00 - :03</b>	(Nats - Sound) :02
Shots of Melissa with both kids in living room	<p>WHILE PREGNANT WITH HER SECOND CHILD, MELISSA FOX FOUND MANY OF THE OLD WIVES TALES ABOUT THE DIFFERENCES BETWEEN CARRYING A GIRL AND A BOY WERE TRUE.</p> <p>SHE CRAVED DIFFERENT FOODS WITH HER BABIES AND SHE CARRIED THEM DIFFERENTLY.</p> <p>BUT WHAT SHE DIDN'T EXPECT WAS THE ALLERGIES SHE THOUGHT SHE HAD OUTGROWN WERE BACK WITH A VENGEANCE WHILE PREGNANT WITH HER DAUGHTER. :19</p>
Closeup of baby girl	
<b>CG: Melissa Fox</b> <b>Mother of two</b>	<p><i>"When I was pregnant with Ren, that's when I noticed they were, like, seemed like they were kicking up and flaring up again where I was having to take something on a daily basis."</i> :08</p>
Shots of Melissa with kids	<p>AND A NEW STUDY AT THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER SHOWS THAT IT MIGHT BE MORE THAN ALLERGY SEASON</p>

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Shots of Dr. Mitchell reviewing research	<p>THAT CAUSED MELISSA'S SYMPTOMS.</p> <p>RESEARCHER AMANDA MITCHELL LED THE STUDY. SHE FOLLOWED 80 WOMEN THROUGH PREGNANCY AND EXPOSED THEIR IMMUNE CELLS TO BACTERIA IN THE LAB. :16</p> <p><i>"What the findings suggest is that women carrying a girl exhibit greater inflammatory responses when faced with some sort of immune challenge" :08</i></p>
CG: Amanda Mitchell Ohio State Wexner Medical Center	
Blood tests in lab	<p>THAT INFLAMMATORY RESPONSE INCLUDES PROTEINS CALLED CYTOKINES (SIGH-toe-kines), WHICH THE BODY RELEASES TO FIGHT OFF SICKNESS.</p>
Shot of a pregnant woman in exam	<p>THE STUDY FOUND THAT THE IMMUNE CELLS OF PREGNANT WOMEN CARRYING GIRLS RELEASED MORE PROINFLAMMATORY CYTOKINES THAN THOSE CARRYING BOYS. :13 / 1:04</p>
Amanda Mitchell (CG'd earlier)	<p><i>"Too many of those cytokines or too much inflammation can really be unhelpful for our bodies' functioning. It can create or contribute to symptoms like fatigue or achiness." :09</i></p>
Shot of Melissa and family	<p>MELISSA TOOK PART IN THE STUDY AND SAYS THE RESULTS MAKE A LOT OF SENSE BASED ON HER EXPERIENCE.</p>
Shot of boy hugging baby	<p>BUT THAT SUFFERING THROUGH HER ALLERGIES WAS WELL WORTH IT. :08</p>
Melissa Fox (CG'd earlier)	<p><i>"I loved being pregnant with both of them. Obviously I love both of my children. I'm glad that they're here. But, it was really interesting to me just the differences that I experienced." :10</i></p>
Shots of family in living room	<p>AT OHIO STATE WEXNER MEDICAL CENTER, THIS IS CLARK POWELL REPORTING. :03</p>
(PACKAGE END) -----	
ANCHOR TAG	<p>THE NEXT STEP IS TO DETERMINE IF THIS RELATIONSHIP EXISTS IN WOMEN WITH CHRONIC ILLNESSES. THIS INFORMATION COULD INFORM DOCTORS' TREATMENT RECOMMENDATIONS TO PREGNANT WOMEN BASED ON WHETHER THEY'RE HAVING A BOY OR A GIRL.</p> <p>ACTIVITIES THAT PROMOTE A HEALTHY IMMUNE SYSTEM LIKE EXERCISE AND MEDITATION ARE RECOMMENDED TO HELP ALL WOMEN STAY HEALTHY DURING PREGNANCY - REGARDLESS OF WHAT THEY'RE HAVING.</p>

## SOCIAL MEDIA

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<p> <b>Share it! Suggested tweet:</b></p> <p> <b>Suggested post:</b></p>	<p>Researchers <a href="#">@OSUWexMed</a> discover pregnant women carrying girls may have more severe reactions to illnesses. <a href="http://bit.ly/2kmlKF6">http://bit.ly/2kmlKF6</a></p> <hr/> <p>There are a lot of theories about being able to tell the sex of a baby before it's born. Some say you can tell if a woman is having a boy or girl based on her food cravings or how she looks. Now, a new study from The Ohio State University Wexner Medical Center suggests there may be some science behind those speculations. See why researchers say women carrying girls may have a harder time fighting off illnesses, here: <a href="http://bit.ly/2kmlKF6">http://bit.ly/2kmlKF6</a></p>
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### EXTRA BITES

<p><b>CG: Amanda Mitchell</b> Ohio State Wexner Medical Center</p>	<p>Mitchell states the findings of the study:  <i>"When we took the women's immune cells and exposed them to bacteria, we found that women carrying female fetuses exhibited greater cytokine production than women carrying male fetuses.</i></p> <p>Mitchell explains how the proteins affect a woman's symptoms:  <i>"This could suggest that inflammation might play a role in why some women, particularly women carrying female fetuses, exhibit greater symptoms to medical conditions like asthma than women carrying male fetuses.</i></p> <p>Mitchell explains how the lab tests simulate exposure to illness:  <i>The key here is exposure to an immune challenge. In this case, it was bacteria in a laboratory, but it could be, right, any sort of immune challenge that we might encounter like a virus or a chronic illness, or something like that during pregnancy.</i></p> <hr/> <p>Fox says her allergies flared when pregnant with her daughter:  <i>"I have pretty bad allergies from when I was growing up and I had mostly outgrown them. But, when I was pregnant with her it was weird that they kind of flared up. So I had to take Zyrtec almost every single day."</i></p> <p>Fox says her asthma was worse when pregnant with a girl:  <i>"I actually have like really mild exercise induced asthma. But I did notice that I got wheezier when I was pregnant with her even though I had gained less weight."</i></p>
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### References

<sup>1</sup>*Fetal sex is associated with maternal stimulated cytokine production, but not serum cytokine levels, in human pregnancy, **Brain, Behavior, and Immunity, Volume 60 February, 2017.** Online: <http://www.sciencedirect.com/science/article/pii/S0889159116301945>*

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Produced by:



1800 West 5th Ave.

Columbus, Ohio 43212

Phone: (614) 932-9950 Fax: (614) 932-9920

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