

Mom's exercise habits good for blood pressure in kids

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It's been well established among doctors and researchers alike, that babies with lower birth weight have a greater risk of having high blood pressure later in life.

However, a Michigan State University study is the first to suggest that the [exercise habits](#) of expecting moms can actually reverse this long-standing belief and possibly lower a child's chances of [high blood pressure](#), even though they may weigh less at birth. High blood pressure, or hypertension, is a key factor in cardiovascular health.

The research is a start in getting at the issue of genetic preprogramming of a child's health characteristics while in the womb and can be found in the *Journal of Sports Medicine and Physical Fitness*.

"We looked at a range of normal birth weight babies, some falling at the lower end of the scale, and surprisingly we found that this lower [birth weight](#) and higher [blood pressure](#) relationship in these offspring is not supported if the women were physically active," said James Pivarnik, lead author and kinesiology professor at MSU. "The connection was disrupted, indicating that exercise may in some way alter cardiovascular risk that occurs in utero."

This phenomenon is linked to what's known as the fetal origins hypothesis. The theory suggests if something strenuous happens to a mother and her unborn child during critical growth periods in the pregnancy, permanent changes can occur that can affect the health of the

baby.

Pivarnik and his colleagues initially evaluated 51 women over a five-year period based on physical activity such as running or walking throughout pregnancy and post-pregnancy. In a follow up to the study, they found that regular exercise in a subset of these women, particularly during the third trimester, was associated with [lower blood pressure](#) in their children.

"This told us that exercise during critical developmental periods may have more of a direct effect on the baby," he said.

The finding was evident when his research team also discovered that the children whose mothers exercised at recommended or higher levels of activity displayed significantly lower systolic blood pressures at 8 to 10 years old.

"This is a good thing as it suggests that the regular [exercise](#) habits of the mother are good for heart health later in a child's life," Pivarnik said.

Provided by Michigan State University

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