

# Physically active moms-to-be give babies a head start on heart health

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Moms-to-be long have been told by their doctors and baby-related books and websites that staying fit during pregnancy is good for both mother and child. When it was reported a couple of years back that exercising strengthens a fetus' heart control, many pregnant women took heed and hit the ground running, literally. Some signed up for prenatal yoga classes; others found new ways to incorporate low-impact aerobic activities into their daily lives.

But, for those [pregnant women](#) out there who might not be feeling all that motivated, or anything but energized, new research being reported this weekend could tip the scales: It turns out that exercising during pregnancy might be the earliest intervention strategy available to you for improving your child's [heart health](#) *after* birth.

"It is my hope that these findings will show that efforts focused on improving health need to start during pregnancy rather than in childhood," says Linda E. May, an exercise physiologist and anatomist at Kansas City University of Medicine and Biosciences who has been heading up a series of studies on fetal heart development for the past four years. "Most of the focus today is on school-age children, but interventions should be focused long before that."

A 2008 pilot study conducted by May and her collaborators at KCUMB and the Kansas City University of Medicine found that pregnant women who exercised at least 30 minutes three times a week had fetuses with lower heart rates – a sign of heart health – during the final weeks of

development.

Now the team has revealed that the fetuses' improved cardiovascular heart control is maintained one month after pregnancy, which indicates that mothers' efforts to stay active have lasting effects. The study results are to be presented this week at the Experimental Biology 2011 annual meeting in Washington, D.C.

For expectant mothers like Kelli Gifford of Katy, Texas, the idea that an extra Zumba class or lap around the park could put her baby on a path to heart health puts an extra spring in her step.

"I had been regularly exercising many hours a week for years before I got pregnant and felt no need to change anything after I became pregnant," said Gifford, who was not involved in the study. "Of course, I checked with my doctor and researched websites to make sure I wasn't causing my baby any harm, but it seemed to be the consensus to keep doing what I was doing as long as I felt OK -- and I have! I feel great and haven't been sick a day. It's been really beneficial to both me and my baby, and I hope it helps both of us long-term as well."

May's research team's latest investigation involved 61 moms-to-be and monitored maternal-fetal and infant heart function four times over the course of the study. The women's aerobic activity levels ranged from power walking to running. Some of the more active participants also lifted weights and practiced yoga.

"The system that controls heart function is known to improve with regular aerobic exercise," May says, "and improved heart control function is evidence of a healthy cardiovascular system and overall health. Not only did the mothers' exercise help maintain and improve their own health, but it set their babies up for a healthier start."

At 2:30 p.m. Sunday in Room 101 of the Walter E Washington Convention Center in D.C., May will present her findings during a 30-minute talk before the American Association of Anatomists at the Experimental Biology 2011 meeting.

The research team's work is funded by the Kansas City University of Medicine and Biosciences and the Hoglund Brain Imaging Center at the University of Kansas Medical Center.

May's collaborators include: Kathleen Gustafson, a research assistant professor at the Hoglund Brain Imaging Center at KUMC; Henry Yeh, a statistician at KUMC; Alan Glaros, a statistician at KCUMB; and Richard Suminski, an [exercise](#) physiologist at KCUMB.

Provided by Federation of American Societies for Experimental Biology

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