

Can exercise during pregnancy reduce the offspring's cancer risk?

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If a mother exercises during her pregnancy, will that benefit her children? Researchers at the University of Kentucky have initiated studies to look into the idea: a group from the UK Graduate Center for Nutritional Sciences has received a \$100,000 grant from the National Institutes of Health to study whether maternal exercise during pregnancy can lead to a reduced risk of cancer in offspring.

Using animal models, the research team will test the effects of voluntary exercise during pregnancy on chemical-induced carcinogenesis in the offspring and also look for potential mechanisms for long-lasting stress protection.

The new study is based on a previous small [pilot study](#) in mice that showed offspring born to exercised dams had improved [glucose regulation](#) and enhanced stress protection compared to offspring born to sedentary dams.

The goal, says researcher Kevin Pearson, an assistant professor for the UK Graduate Center for Nutritional Sciences, is to find relatively simple, short-term interventions for the mother—such as regular exercise during pregnancy—that elicit protection against many [common diseases](#) in her offspring.

"The benefits of exercise for individuals have been studied extensively—everyone knows that exercise is good for you," Pearson said. "But what if it not only helped you, but also your children? We

think there's a high probability that parents will stay committed to a short-term [exercise routine](#) during pregnancy if we can show that it can provide a lifetime of beneficial effects for their sons and daughters."

Provided by University of Kentucky

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