

Do active mothers have smarter babies?

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(PhysOrg.com) -- Pregnant women who exercise three times a week could give birth to babies with better memories. The hypothesis will be tested as part of new study being launched at the Université de Montréal Department of Kinesiology.

“Recent animal studies have proved that active mothers have [newborns](#) with better memories than [babies](#) born to inactive mothers,” says neuropsychologist Dave Ellemberg who will collaborate on this study with Élise Labonté-Lemoyne.

“To our knowledge, this will be the first time this topic is studied in humans,” says Labonté-Lemoyne. “Our hypothesis is that mothers who exercise during pregnancy will have newborns with more mature cognitive functions, particularly long-term [memory](#).”

Ellemborg and his team are recruiting 60 women, between 20 and 35, who are pregnant for the first time. The study will be conducted in two parts: with mothers during pregnancy and with newborns. The cognitive abilities of newborns will be measured using an electroencephalogram 10 days after birth.

“We will place a small net covered with sensors on the baby's head to measure the cerebral activity,” says Ellemborg. “The procedure is painless and lasts no more than 15 minutes. We can even do it as the baby sleeps.”

The 60 selected women will be split into two equal groups - one active and the other inactive. Being active means doing 20 minutes of physical activity three times per week. “We're not expecting women who are eight months pregnant to run a marathon,” says Ellemborg. “A bit of exercise is better than none at all, while a bit more is better than just a bit.”

The Université de Montréal Kinesiology Clinic will strictly monitor participants on a daily basis. To determine the intensity at which women will train they will do an initial 20-minute session on a stationary bike. Women will have to provide an effort of 12 on a scale of 20 (maximum effort). After five minutes at this level of intensity heart rate will be measured and become the rate at which [women](#) train throughout the study.

Provided by University of Montreal

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