

Thinking about kids? Men need to shed the kilos

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(Medical Xpress) -- Melbourne scientists studying the impact obesity has on pregnancy, are urging men to get 'match fit' before conceiving to assist with fetal development.

Reproductive experts from the University of Melbourne's Department of Zoology have discovered that a father's obesity negatively impacts sperm, resulting in smaller fetuses, poor [pregnancy](#) success and reduced placental development.

While the health risks surrounding obesity and pregnancy have largely been centred on overweight mothers, scientists from the University of Melbourne are putting the onus on men to shape up.

World Health Organisation figures showing 75 per cent of Australian adult males are overweight or obese, greatly exceeding the global average rate of 48 per cent.

The findings will be presented at the Annual Scientific Meeting of the Endocrine Society of Australia and the Society for Reproductive Biology 2012, starting from August 26-29 on the Gold Coast.

The research was conducted by Professor David Gardner, Dr Natalie Hannan and PhD student Natalie Binder.

"Australia has a weight problem; the rate of obesity among men of reproductive age has more than tripled in the last three decades,"

Professor Gardner said.

“A lot of men don’t understand what contribution they’re having, but they need to be healthy before conceiving. Sperm needs to be match fit for the games of life and creating life is the biggest thing that we can do.”

The study used in vitro fertilisation (IVF) to determine the effects of paternal obesity on embryo implantation into the womb and fetal development.

PhD candidate Natalie Binder generated embryos from both normal weight and obese male mice - the latter had been fed the equivalent of a western fast food diet for ten weeks.

“We found that development was delayed in the fetuses produced from obese fathers. The rate of embryo implantation into the womb and fetal development decreased in these animals by up to 15 per cent,” she said.

“Furthermore, placental weight and development was significantly less for embryos derived from the sperm of obese males.

“These findings indicate that paternal obesity not only negatively affects embryo development, but also impacts on the successful implantation into the womb.

“This then results in a small placenta which impairs fetal growth and development with long term consequences for the health of the offspring.

“Our study provides more information about the impact of [obesity](#) in men and their ability to start a family and the need to shed kilos in preparation to conceive.”

Provided by University of Melbourne

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