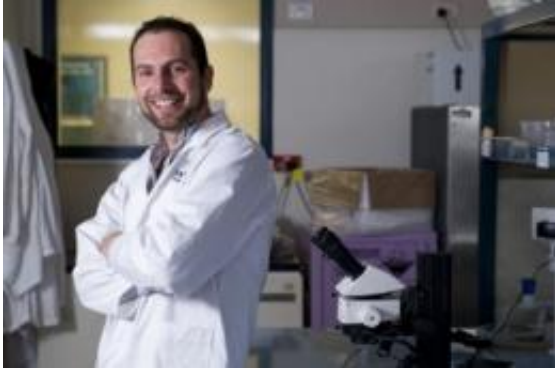


Crickets show path to chirpier sperm

July 18 2011



Dr Damian Dowling

New research suggests that men are what they eat, at least when it comes to reproductive health.

In a study published today in the prestigious journal *Ecology Letters*, researchers from Monash University and the University of Western Australia (UWA) found that a [diet](#) rich in antioxidants helps to protect [sperm](#) from free radical damage and boost [male fertility](#).

Dr Damian Dowling from Monash University's School of Biological Sciences, and Dr. Maria Almbro and Professor Leigh Simmons from UWA's Centre for Evolutionary Biology based their study on crickets, but said the findings have relevance for humans.

“We have provided a definitive experimental confirmation of the

profound importance of antioxidants in maintaining sperm health, not in a test tube, but in a real living animal,” said Dr. Dowling.

“By working with crickets rather than humans as subjects, we were able to conduct the experiment under strictly controlled conditions – therefore ruling out all other alternative explanations for our results.

“Basically, antioxidants in the diet equal more babies.”

The researchers explained that antioxidants were effective because they helped protect sperm from highly reactive molecules known as free radicals – waste products of the body’s cellular processes. These physiological processes translate across species.

“Sperm are known to be vulnerable to attack from free radicals. We’ve shown here that the best dietary defence against this is to ingest two antioxidants - Vitamin E and beta-carotene,” said Dr. Almbro.

Professor Simmons said that humans, who tend to practice monogamy, are an exception to the rule when it comes to sexual behaviour.

“For most animals, it is actually typical for females to have the sperm of several males inside them at any given time, competing for the fertilization of the eggs.

“It is fair to say that the sperm are at war within the female, and we can expect that the healthiest sperm will win. In our study, the sperm of males fed antioxidants were easily able to out-compete the sperm of rival males deprived of [antioxidants](#),” Professor Simmons said.

The Victorian government advises that approximately 20 per cent of Australian couples experience fertility problems and of these, 40 per cent originate with the male.

Provided by Monash University

Citation: Crickets show path to chirpier sperm (2011, July 18) retrieved 26 April 2024 from <https://phys.org/news/2011-07-crickets-path-chirpier-sperm.html>

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