

Fast food leads to slow testosterone

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Obese men hoping to sire children—beware. Obesity is known to be associated with impaired testicular function, potentially resulting in androgen deficiency and sub-fertility. Now it is clear that fast food meals consumed by obese or overweight men have an immediate negative impact on testicular performance and testosterone production.

While many facts are involved in the underlying cause of obesity-related male hypogonadism, Flinders University and UniSA researchers have found that a high fat intake from [fast food meals](#) has a decisive negative effect on a man's serum testosterone levels.

Their investigation into the impact of dietary fat on testicular endocrine function showed some alarming results. They found that the ingestion of a high-fat Fast Food mixed meal, which is a common practice for [obese men](#), produced a 25% fall in serum testosterone within an hour of eating, with levels remaining suppressed below fasting baseline for up to 4 hours.

These results—which only investigated the impact on overweight and obese men, and therefore may not apply to lean men—suggest that the passage of fat through the [intestinal tract](#) elicits a response that indirectly elicits a post-prandial fall in testosterone.

"The observed falls in serum testosterone (25% decline from baseline, 2–3 nmol in absolute terms) are likely to be clinically significant for the obese or older man with low baseline levels of testosterone," says Flinders University's Professor Kelton Tremellen, Gynaecologist and Strategic Professor of Reproductive Medicine, who undertook the research with Dr. Karma Pearce from UniSA.

"These men are likely to be placed into a continuous hypogonadal state during waking hours if they frequently consume meals and snacks high in fat. This will clearly have an adverse impact on both their mental and physical wellbeing, plus possibly their fertility potential.

"Our results suggest that these men should minimize their fat intake and avoid inter-meal snacking in order to optimize testicular function."

The paper—"Mechanistic insights into the aetiology of post-prandial

decline in [testosterone](#) in reproductive-aged men," by Kelton Tremellen, Amy Hill and Karma Pearce, has been published in *Andrologia* journal, September 2019

More information: Kelton Tremellen et al. Mechanistic insights into the aetiology of post-prandial decline in testosterone in reproductive-aged men, *Andrologia* (2019). [DOI: 10.1111/and.13418](https://doi.org/10.1111/and.13418)

Provided by Flinders University

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