

Excessive testosterone raises mortality risk in older men

20 November 2013

Older men whose testosterone levels were neither low nor high tended to live longer, according to new research accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism*.

Testosterone is a key male sex hormone involved in maintaining sex drive, sperm production and bone health. Physicians have long known that [low testosterone levels](#) can signal health problems, but the new study found men may not fare better when levels of the hormone rise too high.

"Older men who had [testosterone](#) in the middle range survived longer than their counterparts who had either low or high levels of the hormone," said the study's lead author, Bu Beng Yeap, MBBS, FRACP, PhD, of the University of Western Australia, based in Fremantle Hospital, Western Australia. "When the body metabolizes testosterone, it produces dihydrotestosterone (DHT), which is tied to a lower risk of dying from ischemic heart disease. Having the right amount of testosterone and higher levels of DHT might indicate these men are in better health overall, or it could help them maintain good health as they grow older."

The population-based cohort study analyzed the mortality rate in a group of 3,690 community-dwelling men between the ages of 70 to 89 in Perth, Western Australia. Participants' testosterone and DHT levels were measured between 2001 and 2004. Researchers analyzed the group's survival rate as of December 2010.

Researchers divided the men into four groups based on their testosterone levels. Men with the lowest testosterone levels had the highest cumulative mortality rate, followed by the men with the highest testosterone levels. Men with circulating [testosterone levels](#) in the 9.8 to 15.8 nmol/L range tended to live longer.

"Sex hormones are an important predictor of mortality in [older men](#), but we haven't determined if treatments to change testosterone and DHT levels can alter these outcomes," Yeap said. "Additional research into these findings, including randomized clinical trials, could help identify ways to leverage this information to improve health in older [men](#)."

Provided by The Endocrine Society

APA citation: Excessive testosterone raises mortality risk in older men (2013, November 20) retrieved 19 September 2019 from <https://medicalxpress.com/news/2013-11-excessive-testosterone-mortality-older-men.html>

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