# New UK Study of men's testosterone levels may reduce deaths from cardiovascular disease and and type 2 diabetes

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A team in Sheffield has revealed that the hormone testosterone has a "significant impact" on the way sugar and fat are managed by the body. At the recent annual meeting of the prestigious UK Endocrine Society, they revealed that low testosterone was not unusual in type 2 diabetes. The specialists said this area of science was being "turned upside down" as testosterone was formerly considered a villain. The impact of androgens was thought to partly explain why men are somewhat more susceptible to heart disease than women. Additionally, there have been issues about the many detrimental side effects of excessive testosterone, as seen in bodybuilders who mistreat the hormone.

Type 2 diabetes is usually associated with obesity. Piling on the pounds has a negative effect on the body's testosterone levels as the fat starts a twin assault on the hormone. It discharges chemical signs to cut back generation and the hormone is actively broken down by it into oestrogen. A fifth of individuals with type 2 have symptoms of low testosterone changing their mood and energy performance, the researchers said. Dr Daniel Kelly, of the University of Sheffield, won the presidential award of the Endocrine Society for the findings he presented at the seminar. He used testosterone-deficient mice to demonstrate the hormone was greatly involved in how fat and sugar were processed. With no testosterone, the liver and muscles were able to take up sugar, and fat was redirected from under the skin to clog up arteries and the liver.

Wellness may be changed if testosterone levels are too low or excessively high. Dr Kelly said: "We understand guys with low testosterone are at significantly increased danger of type 2 diabetes and cardiovascular disease also." His findings begin to spell out why, in addition to proposing that hormone replacement therapy to restore testosterone levels in the body to its normal levels could enhance well-being. "We know men with low testosterone levels are at greatly increased risk of type 2 diabetes and cardiovascular disease as well." Dr Kelly included.

Prof Hugh Jones, a consultant physician at Barnsley Hospital who was also involved in this area of research,

describes diabetes as the "cancer of the 21st century" that will be a "substantial" burden on healthcare systems. He said: "If studies do show that replacing testosterone to normal is safe, and that is key, then it would increase the lifespan of many men." The research, however, missed out on half the population. No one is considering testosterone treatment in girls as it would lead to masculinisation. Although a noteworthy role for oestrogen in a similar biological process, that are controlled by females, hasn't been uncovered.

Prof Ashley Grossman, an endocrinologist in the University of Oxford, said: "Now the field is turned upside down as testosterone is seen to have majorly positive effects. However, there is a commercial push for older men to have testosterone replacement therapy, and there is some scepticism among clinicians that this is more financially rather than clinically driven. Nevertheless, this data does suggest that very low levels of testosterone in ageing males might not be good."

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