

## DESERT ENDOCRINOLOGY



## Testosterone Therapy and the Risk of Heart Attack in Men

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As the average age in our country rises over time, so does the complaint of loss of libido (*sex drive*) and erectile dysfunction (*ED*). While men do suffer a gradual decline in testosterone levels they do not experience the acute drop in sex hormone as women do at age 51. Rather, men have a more gradual decline in testosterone as they age, and so men fathering children well past the age of 50 is not uncommon.

Along with our gradually rising life-spans, there is a call for therapy to address the decline in testosterone. This increasing demand has resulted in the availability of multiple forms of therapy, and multiple brands of topical testosterone gels. In recent years multiple small studies suggest a correlation between use of testosterone therapy and nonfatal heart attack.

A recent study supported by the Intramural Research Program of the National Cancer Institute and reported in PLOS One, suggests there may be a link in men between the onset of use of testosterone therapy and the risk of nonfatal heart attack. Involving 55,593 men, the study found the risk of heart attack more than doubled in the first 3 months following start of therapy in men 65 years or older.

Risk of heart attack was also elevated in men younger than 65 if they also had a pre-existing history of heart disease.

The data suggest the risk of heart attack declined if the older men stopped the testosterone after the first 90 days. The mechanism for the observed increased risk is not precisely known, but it is speculated that physiologic changes while on testosterone therapy such as an increase in red cells, a thicker blood viscosity or a drop in HDL cholesterol may be involved.

It should be noted that while it was a large study and included both older and younger men, this was an observational study. It did not involve a blinded-crossover trial, a more rigorous approach. Such a study needs further corroboration with additional studies for a stronger confirmation of its validity. It should also be noted that the class of drugs known as phosphodiesterase inhibitors (*Viagra, Levitra*) did not show the increased risk of heart attack.

For now, testosterone therapy remains a valid therapy for hypogonadal men. However, clearly more research needs to be done regarding the risk of heart attack and the use of testosterone. A candid discussion between physician and patient regarding risk and benefit, remains essential before starting therapy.



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DESERT ENDOCRINOLOGY is a medical practice that specializes in endocrinology, hormonal disorders and metabolic diseases. These include diabetes, thyroid disorders, osteoporosis, as well as pituitary, ovarian and adrenal disorders.

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