

New study finds testosterone replacement therapy does not increase cardiovascular risks

November 18 2014

An important new study of men who have undergone testosterone replacement therapy has found that taking supplemental testosterone does not increase their risk of experiencing a major adverse cardiac event, such as a heart attack or stroke.

Researchers at the Intermountain Medical Center Heart Institute in Murray, Utah, which is the flagship facility for the Intermountain Healthcare system, studied 5,695 men between the ages of 53 and 71. The men, all patients at Intermountain Healthcare hospitals, had initial low [testosterone](#) levels.

Researchers found that men who received testosterone supplementation to achieve normal or high testosterone levels had reduced overall rates of major adverse [cardiac events](#) at one and three years after their initial low levels of testosterone were measured, compared to other men who had persistently low levels of testosterone. The lower rate of cardiac events included a reduction in the adjusted risk of death and a reduction in heart attacks.

The Intermountain Medical Center Heart Institute research team will report their findings at the 2014 American Heart Association in Chicago at 10 am, EST, on Tuesday, Nov. 18.

The study comes at an important time, as the U.S. Federal Drug

Administration is evaluating the safety of testosterone supplementation and whether it is a risk to the health of older men.

According to the FDA, 1.3 million patients received a prescription for testosterone therapy in 2010. By 2013, the number rose to 1.3 million patients, with men ages 40 to 64 making up 70% of the prescriptions.

Smaller studies have been conducted on testosterone replacement therapy and its cardiovascular effects in men, with different results. While it is known that low levels of testosterone pose an increased cardiovascular risk, the risks versus benefits of supplementation have not been clearly identified.

The new findings that [testosterone therapy](#) is generally safe and does not increase the risk of major adverse cardiac events for men with low levels of testosterone, provides assurance to physicians across the country to use it when it's needed with less concern about its effect on their patients' heart health, say researchers.

"Testosterone therapy has become very popular in the United States in recent years," said Jeffrey Anderson, MD, a cardiologist at the Intermountain Medical Center Heart Institute, and lead researcher for the study. "With this study we are getting closer to defining the true associations between testosterone treatment and cardiovascular risks or benefits."

During clinical follow-up, men in the study were categorized as having persistently low testosterone levels (only 14% had been given supplements), normal levels or high levels (all were supplemented). All of the [men](#) had at least three years of subsequent follow-up observation. Researchers then assessed the impact on death, heart attack, or stroke of supplementation to normal or high levels after one and three years by reviewing electronic medical records.

"While this study provides reassurance about the safety of using supplementation to move from low to normal levels of testosterone, more studies, particularly large randomized studies, are needed," said Dr. Anderson.

Provided by Intermountain Medical Center

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