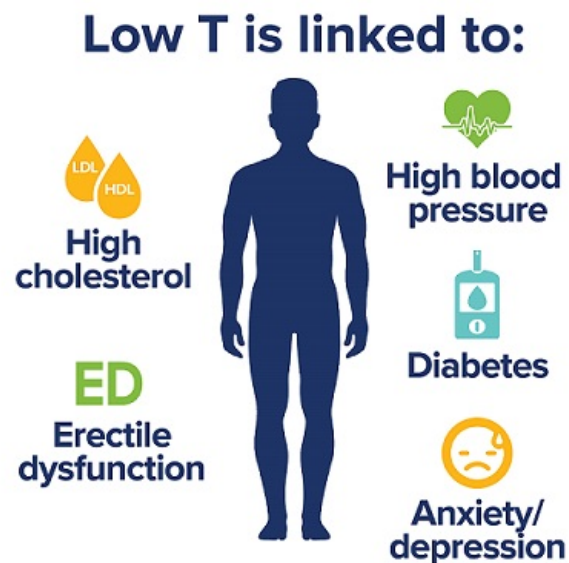


# Low testosterone after testicular cancer is common, linked to chronic health problems

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Credit: American Society of Clinical Oncology (ASCO)

In a large study, 38 percent of 491 testicular cancer survivors had low testosterone levels, known as hypogonadism. Compared to survivors with normal testosterone levels, survivors with low testosterone were more likely to have a range of chronic health problems, including high blood pressure, diabetes, erectile dysfunction, and anxiety or depression.

The study will be featured in a press briefing today and presented at the

2017 American Society of Clinical Oncology (ASCO) Annual Meeting.

"Because testicular cancer occurs at a young age and is highly curable, many survivors may live upwards of five decades," said lead study author Mohammad Issam Abu Zaid, MBBS, an Assistant Professor of Medicine at the Indiana University School of Medicine in Indianapolis, Indiana. "Our findings underscore the need for clinicians to assess testicular cancer survivors for physical signs or symptoms of hypogonadism and to measure [testosterone levels](#) in those who do."

Low [testosterone](#) can be present at the time of a testicular cancer diagnosis, or it can develop as a side effect of surgery or chemotherapy. While it has been known that low testosterone occurs in a significant proportion of testicular cancer survivors, this is one of the first studies to examine its relationship with long-term [health](#) complications in North American patients.

## About the Study

This analysis comes from the first 491 patients enrolled in The Platinum Study, which aims to be the largest study of testicular cancer survivors worldwide, with over 1,600 survivors already enrolled and still actively recruiting. All patients received chemotherapy and were younger than 55 when they were diagnosed with cancer. The median age at clinical evaluation was 38 years.

The goal of the Platinum Study is to follow the lifelong health of men who received cisplatin chemotherapy for testicular cancer. Researchers collect health information through comprehensive questionnaires and blood samples, as well as basic measurements like blood pressure and a hearing test. The study also aims to identify genes that may raise the chance of developing long-term [health problems](#), such as nerve damage and hearing loss. The study is funded by the National Cancer Institute,

National Institutes of Health.

## Key Findings

Among the 491 survivors, 38 percent had a low testosterone level or were on [testosterone replacement therapy](#). Being overweight or obese was associated with a higher chance of having low testosterone, as was older age. The researchers also found a genetic abnormality (in the sex hormone binding globulin gene) that appears to predispose some men to low testosterone, but this needs to be confirmed in larger studies. Survivors participating in vigorous physical activity appeared to have higher levels of testosterone.

Compared to survivors with normal testosterone, testicular cancer survivors with low testosterone were more likely to take medicine for:

- High cholesterol (20 percent vs. 6 percent)
- High blood pressure (19 percent vs. 11 percent)
- Erectile dysfunction (20 percent vs. 12 percent)
- Diabetes (6 percent vs. 3 percent)
- Anxiety or depression (15 percent vs. 10 percent)

"Some of these health problems have been previously linked to [low testosterone levels](#) among men in the general population and in a few studies of testicular [cancer](#) survivors, but this study is one of the most comprehensive to date – we are looking at 15 different health conditions," said Dr. Abu Zaid.

## Next Steps

The researchers will continue to follow this group of survivors and expand the analysis to the entire cohort of 1,600 survivors enrolled on

the study to date. They also plan to eventually enroll a group of survivors who were cured with surgery only, to parse out the effects of surgery vs. chemotherapy on the development of adverse health outcomes and further examine testosterone levels.

**More information:** Low Testosterone After Testicular Cancer Is Common, Linked to Chronic Health Problems. [www.asco.org/about-asco/press- ... ommon-linked-chronic](http://www.asco.org/about-asco/press-...ommon-linked-chronic)

Provided by American Society of Clinical Oncology

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