

The effects and safety of testosterone replacement therapy for men with hypogonadism: the TestES evidence synthesis and economic evaluation

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Disclaimer: This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

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Plain language summary

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Plain language summary

Testosterone is a hormone which is vital for sexual activity, bone growth and muscle development in men. Men with low testosterone levels may experience problems with erections and may suffer from brittle bones (osteoporosis), weakness, feeling down (low mood) and tiredness. The manifestations of low testosterone can be treated with testosterone replacement therapy. However, there is current uncertainty about the positive effects of testosterone replacement therapy and its safety.

We brought together results from all available medical studies that looked at the use of testosterone replacement therapy in men with low testosterone and contacted the doctors who led these studies to gather further information on their participants.

We found 35 studies (5601 participants) conducted in different countries, 17 of which provided additional information on their participants. We did not find any evidence to show that testosterone replacement therapy increases the risk of heart problems, or any evidence to show that some men who take testosterone replacement therapy benefit more than others. Men with low testosterone reported having low mood, poor concentration and lack of energy; however, medical studies often failed to prove that these manifestations improved with testosterone replacement therapy. Most medical studies were conducted among white men in North America using questionnaires designed specifically for them; therefore, the results may not reflect the experiences of men in other countries and from more diverse ethnic backgrounds. There is too much uncertainty about the benefits of testosterone replacement therapy to accurately estimate its value for money for the NHS.

We think our findings offer some reassurance to doctors and patients that testosterone replacement therapy does not increase the risk of heart problems. New studies are needed to find out whether some groups of men (such as older or younger men) are more likely to benefit from testosterone replacement therapy more than others. It is also important to develop tools which better reflect the experience of men from a diverse range of social and ethnic backgrounds. To inform men with low testosterone about our findings, we are creating a website with dedicated YouTube video clips.

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This article

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