

Is TRT safe?

There is both confusion and controversy regarding testosterone replacement therapy (TRT). Is it safe? Is having low T an actual condition? What of the ethics and should T therapy even be done?

Particularly when one considers the huge amounts of money involved. Globally, between 2000 and 2011, sales increased 12-fold from \$150 million to \$1.8 billion. Six years on, and it's even more eye watering now.

In the UK alone, testosterone prescriptions increased by 90% during the same time frame. But why the massive increase? Where America goes, the UK follows. Information is shared in an instant around the world.

In the US, prior to 2012, direct medical adverts to consumers were only allowed to emphasise 'disease awareness'. These were not so subtle hints about low T. After 2012, the floodgates opened. Specific testosterone medicines were touted to the American male promising both better quality of life and improved performance ("In the bedroom and the boardroom!"). Brilliant.

The effect was immediate. Physicians were overwhelmed. And ill prepared to respond. "What the fuck is TRT all about, dear boy?" During the 4 years between 2009 – 2013 over 1 million testosterone tests were performed in the US alone.

Then, in a society of litigations (where there's blame there's a claim!), a suggestion was made about increased heart attack and stroke risk linked to TRT. Cue the lawyers. A mess ensued and now the majority of Drs simply don't want to know.

So, what are the facts? The British Society for Sexual Medicine established a 'task force' to find out. Evidence was examined from properly conducted trials and academic articles between 2005 – 2015. The results were published in 'The International Journal of Clinical Practice' earlier this year.

In brief, 8 key statements were developed by the task force. This will serve the basis for future TRT prescribing guidelines.

1) Low T is both well established and a significant medical condition.

A level of total testosterone less than 8nmol/L (based on two separate samples taken between 8 – 11am) and/or free testosterone less than 180pmol/L (or 0.180, if converted to nmol/L for comparison) requires further investigation and therapy.

2) There are well established symptoms

The most common include lowered sex drive and activity, problems with erections and a lack of one when you wake up in the morning. Hot flushes, obesity, reduced muscle mass, fatigue, mood changes and poor concentration are often described.

Generally, loss of erection occurs with a total T level lower than 8.

3) T therapy is effective and evidence based

It is important to note that T therapy is lifelong. Patients must be advised of this. The benefits stop within 6 months of treatment withdrawal. Also, T therapy frequently causes infertility in younger men. Not ideal when the Missus' biological body clock starts alarming "BABY!".

On the plus side, lean muscle mass is consistently demonstrated to go up and body fat goes down. A further added bonus is the improvement of depression scores.

4) Age is no basis for excluding T therapy

Being obese really doesn't help, and nor does anabolic steroid use. And although T levels naturally decline over the years, around 75% of men will continue to have healthy testosterone levels into their very old years.

If your testosterone level is low, it's low. Regards less of age.

5) Low T actually worsens heart health and death risk

A recent Swedish study showed that low total T (below normal levels) was linked to a 25% increased risk of death. This was a big study with a 14 year follow up period. The Australians also got in on the act. Their 10-year study of over 3600 older men with normal T levels concluded (for the first time) that healthy levels are associated with lower mortality.

6) Increased heart health risk from T therapy is not supported by evidence.

Some men will have an increase in red blood cells. This can cause the blood to become thicker (or more 'sticky'), a condition called '*polycythaemia*'. This condition is problematic and T therapy can lead to a 6% increased rate. Not a lot, but explains why a full blood count is recommended at baseline, after 3-6 months, then annually. A lipid profile is advisable, too. This monitors any alterations between 'good' and 'bad' cholesterol.

Shorter acting esters of T (such as test propionate) exaggerate this blood stickiness more than other forms. It also requires more frequent injections, usually 50mg 3 times a week. Medium length esters (Enanthate, Sustanon etc.), fortnightly. There is another (trade name 'Nebido') which need only be injected every 10-12 weeks.

7) No link between prostate cancer and T therapy

There's no evidence which supports any increase in risk. Moreover, low T now has strong evidence linking it with aggressive prostate cancer. That said, long term data to draw conclusions about prostate safety is quite low. So, monitoring prostate health is advisable (via PSA blood test). Oh, and a finger up your arse.

8) Major research of T therapy benefits is overdue

But don't hold your breath. This will take a massive amount of independent funding. One can hardly trust the pharmaceutical industry to be unbiased. And, sadly, the granting of ethical approval is slim.

Conclusion

Low T is a real condition which reduces health and quality of life. It has specific symptoms and treatment works. Ongoing monitoring is essential, both for the patient's wellbeing and data collection. And yes, it does appear that T therapy is safe.

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