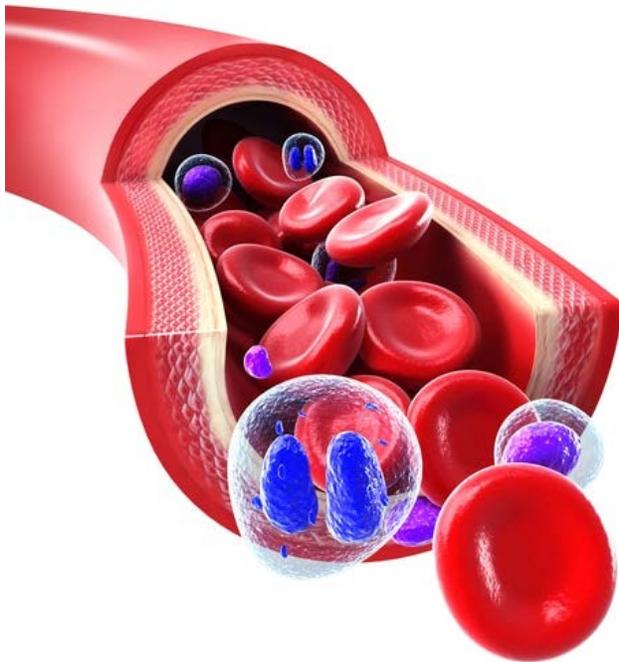


Testosterone and Hematocrit Levels — The Crowded Highway

12/12/2017|[\(Augie\) Juan Augustine Galindo Jr. MPAS, PA-C](#)|[No Comments](#)

Let's discuss testosterone and hematocrit levels.

Your **hematocrit level** represents the volume of red blood cells (the cells in your blood that house **hemoglobin**, which allows you to carry oxygen to your tissues) in your blood. For our purposes, it's essentially a measure of viscosity, or you can think about it more simply as blood "thickness."



When we talk about the relationship between therapy for low testosterone and hematocrit levels, the concerns could probably best be described in a metaphor.

Imagine your circulatory system as a network of city highways, with red blood cells as the cars travelling those highways at high speed.

Add more cars to that system, and then add even more.

As the number of cars increases, the traffic becomes congested and slows down, and if the traffic continues to increase, the logical outcome is a traffic jam.

This is a simple model for the relationship between therapy for low testosterone and hematocrit levels.

What This Means for Your Health

As testosterone levels rise, hematocrit levels may also rise due to changes in how your body regulates iron. This directly increases the viscosity of your blood and is not changed by aspirin, coumadin, or other **blood thinners**.

This condition of increased hemoglobin is sometimes called **erythrocytosis**.

Red blood cell counts may increase [because testosterone and other androgens can have a stimulating effect](#) on red blood cell production.

Testosterone and Hematocrit Levels — The Risks

If you experience an increase in blood viscosity due to greater red blood cell volume, there are concerns about the potential for strokes, hypertension, and other blood clotting events, such as **thrombosis** — the real-life consequences of the traffic jam in our highway example.

But, here's what the research shows: Although these concerns are logical, an actual increase in these life-threatening events has not been scientifically observed.

[Dr. Abraham Morgentaler, M.D., a Harvard expert on TRT, had the following to say on the likelihood of substantial medical consequences:](#)

“If the hematocrit goes up too high, we worry about the blood becoming too viscous or thick, possibly predisposing someone to stroke or clotting events. Although, frankly, in a review that I wrote in the New England Journal of Medicine where we reviewed as much of this as we could, **we found no cases of stroke or severe clotting related to testosterone therapy**. Nevertheless, the risk exists...”

It's a pretty straightforward, logical issue.

Luckily, the solution happens to be just as simple as the problem.

[Take the Quiz](#)

Testosterone and Hematocrit Levels — Prevention and Treatment

Let's look at what can be done to avoid any potential health concerns related to therapy for low testosterone and hematocrit levels.

Prevention

The first preventative measure we take against any complications regarding your testosterone and hematocrit levels is to monitor your blood health carefully and consistently.

Smoking cessation and proper management of obstructive sleep apnea, if present, can also have a positive impact here. In both of these states, the body is deprived of full oxygenation on a consistent basis, and that can also increase red blood cell counts.

Detection of a potential problem before it becomes a health concern is the first step to preventing any negative side effects. After all, your overall health is our main goal.

We have to keep an eye on those circulatory traffic levels.

Adjusting Your Dosage

The second step is finding the correct testosterone dosage.

Any significant increase in hemoglobin may be treated by altering how much testosterone you receive.

This should reduce erythrocytosis — if testosterone is stimulating an increase in red blood cells, we reduce the stimulus to a level more suitable for your body.

Reducing the Congestion

The third measure is to reduce the number of cars.

Fewer cars on the road reduces the possibility of rush-hour slowdowns.

In treatment terms, the increased hematocrit level is treated directly with a procedure called a therapeutic phlebotomy — removing a quantity of blood to restore the volume of red blood cells to a safer level.

In other words, **just donate some blood** — it's really that easy.

TRT and Blood Donation

If there's a problem with elevated hemoglobin, blood donation is recommended.

It's simple, it's free, and it helps others, so it's truly a win/win situation.

What's happening there is that you're simply reducing the quantity of cells to lessen risk of clotting, and then we may adjust your doses afterwards.

The added bonus? Getting to donate that extra blood to the charity of your choice.

Other Benefits of Therapeutic Phlebotomy

As well as effectively managing polycythemia, bloodletting is sometimes used as a treatment for hypertension, or high blood pressure. Removing a pint of blood has been shown to decrease blood pressure and “bad” cholesterol levels, during a study performed at Immanuel Hospital in Berlin.

The inspiration for the study was the finding that regular blood donors had a reduced instance of high cholesterol, as well as reduced risk of coronary disease and stroke.

The idea that removing blood from the body would reduce blood pressure seems obvious in retrospect. The technique is an ancient one, but still has merit today under controlled circumstances.

Different studies have also shown that therapeutic phlebotomy can aid diabetics in controlling blood sugar levels.

Finally, most patients report increased energy levels and feelings of health after bloodletting. Although this is not necessarily a reason to receive the treatment in and of itself, patients and doctors alike often consider it a nice bonus.