The Best "Stack" of Testosterone Boosting Supplements

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As I have been researching natural testosterone optimization for little over 5 years now, I have probably used many thousands of dollars on supplements and herbs, mainly for test purposes. And like you might guess, most of the supplements that I tried, did nothing, no effect whatsoever, not on test levels, and not any physical changes took place.

Still, there have been some very positive surprises along the way, and some supplements, herbs, minerals, and vitamins have proven to be extremely effective. And those are the ones that I often start using for long-term.

However, the thing that I want to share with you on this free report, is something that is often referred as a "stack". A strategic combination of supplemental compounds that work in synergy with each other.

There are many ways to stack supplements, and multiple different synergic variations exist, but in this report, I'm revealing you my personal favorite "stack", and the one that I believe to be the best and most effective one out there.

The stack consists from three testosterone production supporting compounds, first is a herbal extract, second is a phospholipid, and third is an amino-acid.

I will first introduce the compounds to you, and the science behind them so that you can understand exactly what they are, and why they work so well together. And at the end of this report, you'll get to know how to take them, when to take them, and a little bit about dosages, timing, and cycling.

So, let's cut the rant and move on to the supplements ;)}
1. Mucuna Pruriens Extract

*Mucuna Pruriens* (velvet bean) is an indian bean like climbing herb that can reach up to 15 meters in length.

It's widely used in Indian herbal medicine (Ayurveda) as it relieves the effects of Parkinson's disease, and it's also considered to be quite effective "sexual tonic". It has been in use for more than a thousand years, and in recent years it has gained quite a reputation for its effects on increasing testicular size.

In these past 10 or so years, Mucuna Pruriens has caught the interest of Western scientists, mainly because it's found to be the richest known source for dietary L-Dopa, which is the direct precursor of the neurotransmitter/hormone - dopamine.

It's known that L-Dopa *converts straight into dopamine after ingestion*. And dopamine is known for its *stimulating effect on testosterone production*, as the two hormones both support each other.

Furthermore, increased dopamine is also associated with a *boost in growth hormone levels*, and increased GH is associated with elevated testosterone production.
To put it simply: L-Dopa converts into dopamine -> Dopamine increases testosterone -> Dopamine stimulates GH release, which furthermore increases testosterone levels.

Cool, right? **There's only one problem with L-Dopa.** Researchers have found out that when they make it in the lab, it quickly draws from the blood, and the effect is not very long lasting...

...However they have also found out that when their subjects consume Mucuna Pruriensis, the herb **releases L-Dopa to the bloodstream more steadily**, and that it stays in the blood for multiple hours longer than the synthetic alternative.

**Here's some science to support this:**

a) First came [this rat study](#), where the researchers fed estradiol to the rodents, which then hammered their testosterone levels and reproductive system. They then gave these rats an extract of Mucuna Pruriens and the results are as follows: the L-Dopa in the herb was able to significantly increase testosterone levels, luteinizing hormone levels, and sperm quality, by rejuvenating the damaged hypothalamus-pituitary-testicles axis.

b) Similar animal studies followed, where Mucuna Pruriens was able to increase testosterone levels in rats ([study](#), [study](#))

c) Then came [the first human study](#), where the researchers had a group of 60 men who were infertile due to chronically high stress levels. These men were given 5 grams of daily Mucuna powder for 3 months, and after the 90 day period their stress hormone levels and sperm parameters showed some interesting changes: The amount of sperm cells increased by 688% on infertile men with abnormal semen parameters, and by 32% on the men with normal sperm. The stress hormone (cortisol) levels were reduced by -110% in the men with abnormal sperm, and by -38% on men with normal semen parameters. Unfortunately in this study the researchers didn’t test testosterone levels, but the increase in sperm production should explain the testicle size increasing effects of M.Pruriens.

d) Then finally came a [human study](#) which looked Mucuna’s direct effects on male testosterone levels. The researchers at Lucknow, India, had 75 healthy men and 75 infertile men aged between 25-40 as their test subjects. They gave these men 5 grams of ground up Mucuna Pruriens seed powder daily for 90 days, and after the 3 months had passed they examined their subjects serum hormones and semen parameters to find out the following: Serum testosterone levels increased by 38% in the group of infertile men, and by 27% in the group of healthy men. Luteinizing hormone (LH) increased by 41% in infertile males, and by 23% in healthy males (LH is the precursor hormone of testosterone, which converts cholesterol into T inside the ballsack). Prolactin (which is a hormone that lowers testosterone) decreased by -32% in the group of infertile men, and by -19% in the group of healthy men. Semen parameters also improved in both groups, much more significantly in the group of infertile men, as there was not that much room for improvement among the healthy male group.

e) Another [human study](#) followed where Mucuna was again able to raise testosterone levels by 38% in infertile men (there was no test group of healthy men in this study).

**The reason why Mucuna Pruriens is the first supplement in this stack, is because the dopamine release stimulates the pituitary gland to produce more luteinizing hormone (LH). And this is exactly what the first part of the stack is about. To increase the amount of the main precursor hormone of testosterone.**
2. Phosphatidylserine

**Phosphatidylserine** (PS) is a naturally occurring phospholipid that exists in the cell membranes of all species. In simple words, it’s a type of fat that can be found in every cell membrane of the human body that also contains the mineral phosphorus.

Roughly 60 grams of phosphatidylserine can be found in human brain, testes, lungs, muscle tissue, kidneys, liver, and blood plasma. About 50% of the PS in the body exists in neural tissue.

**Phosphatidylserine has the following effects in the human body:**

a) Transports molecules in and out of the cell  
b) Delivers signals to the interior of the cell membrane  
c) Improves signaling between the cells  
d) Protects cell membranes from oxidative stress

There are also three very interesting facts about phosphatidylserine which make it a potent testosterone booster...

1. It’s a message sender between the cells, which means that it also improves the signals that come from hormones.
2. It protects cells (think testicular leydig) from oxidative damage (brains and testicles contain the most of phosphatidylserine in the body).

3. PS is effective at lowering cortisol (stress hormone) levels.

Here's some studies:

a) Few studies have found that phosphatidylserine supplementation lowers cortisol secretion in stressed subjects ([study, study](#)), and [this study](#) found out that 800 mg’s of daily PS reduced exercise induced rise in cortisol by 30% (remember that lowered cortisol leads to increases in testosterone).

b) [This peer-reviewed study from Starks et al.](#) found out that 600 mg’s of daily PS in combination with resistance training produced a staggering 180% improvement in the testosterone to cortisol ratio of healthy human subjects when compared to placebo.

The reason why [Phosphatidylserine](#) is the second supplement in this stack is because it works in great synergy with dopamine (which is increased after M.Pruriens). Both are neurotransmitters which strengthen the signals between cells and hormones, and both increase testosterone because of that. They’re both also very potent cortisol blockers, which is also a way to increase testosterone production (more cortisol, more oxidative damage in the testes, less testosterone).
**L-Carnitine** is an amino acid that our bodies can naturally synthesize from lysine and methionine. It's often used as a brain booster, due to the fact that it protects neurons and can increase alertness.

Another thing which carnitine is known for is as a fat burner, even though research has shown that it's not quite effective at burning fat, unless your ability to oxidize fatty acids is impaired, which is not often the case when people are fat ;)

**But the reason why carnitine is in this stack, is because it increases the amount of active androgen receptors in the human body, meaning that it boosts the amount of “testosterone receptors”, the receptor sites where the big-T actually binds itself.**

To make it stupidly simple, your testosterone would not do anything without the androgen receptors, as the hormone would not have the possibility to enter DNA, it would only circulate in your body, without ever having any effects on anything.

Carnitine is not a testosterone booster, as it does not stimulate the actual testosterone production (as far as I know). However, carnitine is a testosterone utilizer. It makes your testosterone molecules more "effective", by increasing the amount of the receptor sites where the hormone can bind into.
Here's some science to support this:

a) In this human study, the researchers found out that L-carnitine-L-tartarate supplementation significantly increased the androgen receptor content in muscle tissue when compared to placebo (the researchers measured this using actual muscle biopsies of their subjects, before and after the supplementation). The dosage in this study was 2 grams of L-carnitine, taken daily for 3 weeks.

b) This study, conducted by the same researchers, found out similar results. L-carnitine supplementation increases the density of androgen receptors, and promotes muscle recovery due to more efficient protein synthesis in the muscle tissue.

c) Carnitine supplementation improves the quality of human sperm, this is most likely one of the results of increased androgen receptor density and testosterone utilization (study, study, study).

The reason why carnitine is the third supplement in this stack is obvious. We already have that increased testosterone production going on from M.Pruriens and PS, and L-Carnitine is the final piece of the puzzle that will increase the effects of this testosterone boost. Simply, Carnitine is the testosterone utilizer. It allows more testosterone to bind into the receptors, by increasing the amount and density of them.
I know many of you who read this will have several question, about the dosages, timing, cycling, and about the several different forms of these supplements available.

So let's tackle them!

Q: What are the best forms of these supplements to use in the stack?

A: My recommendations are: **Mucuna Pruriens extract** (because extracts have more L-Dopa), any brand of **Phosphatidylserine that is not derived from soy lecithin**, and **L-carnitine-L-tartarate** (only because it was the form used in the studies).

Q: What is the best time to take the stack? And how many times a day?

A: Morning, or during the day would be optimal, as L-Dopa can make you more energetic and that's why I wouldn't take it before bed. Drinking one raw egg, or taking a tablespoon of butter with the stack will amplify the effects. Once a day is enough.

Q: Do I need to cycle the stack?

A: These supplements don't have that many resistance causing compounds (phytolexins) in them, so "aggressive" cycling is not needed. Just to play it safe, and to not to overexhaust the endocrine system 2 weeks on - 1 week off, would be my recommendation.

Q: What about dosages?

A: Looking at the studies cited above, effective dosages would be: 5 grams of M.Pruriens, 600 mg's of PS, and 4 grams of L-Carnitine. You should take all of them at the same time.

**Conclusion**

So, that is the stack. My favorite stack to be more precise. If you decide to try it, enjoy the effects, I know it works as I use it myself ;).

and thanks again for being part of the Anabolicmen.com community!

-Ali Kuoppala, The Founder of AnabolicMen.com