The
Quickstart Manual For Natural Testosterone Optimization

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This is your quickstart manual to natural testosterone optimization. You’ll learn the short and extremely condensed version of the various testosterone-boosting topics at anabolicmen.com.

If you'd like more info on the topics in this PDF, check the blog for bigger more in detail articles, I try to link to them as much as I can in the chapters below.
Here's the quick rundown of the contents in this guide:

- Chapter 1: Lifestyle
- Chapter 2: Training
- Chapter 3: Nutrition
- Chapter 4: Supplementation

Chapter 1: Lifestyle

Believe it or not, there are several so called “lifestyle hacks” that can be used to increase your natural testosterone levels quite significantly.

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- **Sleep:** Getting good 8-10 hours of quality sleep per night is crucial for testosterone production, since that’s when the endocrine system produces the majority of your hormones, amping you up for the day ahead. In a study conducted by Penev et al, the men who slept for 8 hours had ~2x more testosterone in their serum than men who slept
for only 4. Similar results were seen in a study of Gov et al. where the researchers found out that each extra hour of sleep, means roughly 15% more testosterone being produced.

- **Sex:** Some claim that sex would lower testosterone levels, since they believe that ejaculation will deplete the body from testosterone (which is bullshit by the way). In reality having sex raises testosterone levels pretty drastically. For example: In a study of 44 men visiting a sex club, it was noted that the men who actually had sex in the club with a woman, noted a nice 72% average increase in their testosterone levels, while the men who only watched the act, got a boost of 11%. Another study examined couples and their sexual behavior, and saw that on the nights when they had “sexual activity”, both the men and women had significantly higher testosterone levels, when compared to the nights they didn't. It's also known that old men who have more sex, have higher T levels. And that lack of sex can cause significant reductions in testosterone.

- **Stress less:** Chronic stress has been linked to significantly lowered testosterone levels in multiple studies (study, study, study, study, study, study). This is largely caused by the fact that stress increases cortisol, which is a stress hormone that suppresses testosterone synthesis and destroys free-testosterone molecules already in circulation. Good news is that things like relaxation-exercises, meditation, and even walking in the nature are all proven to lower stress, while simultaneously reducing cortisol, and boosting testosterone (study, study, study, study).

- **Bodylanguage:** Some interesting research from Harvard University has shown that when humans assimilate "alpha bodylanguage", salivary testosterone levels go up by 20%, while the stress hormone cortisol gets lowered by -25%. When the subjects assimilate "low-power poses", there’s a reduction of -10% in testosterone, and an increase of 15% in cortisol. Believe it or not, these effects take place in mere 2 minutes!

- **Keep your balls cool:** Like you probably know, over 95% of man's testosterone is produced inside the testicular leydig cells. Hence, why optimal functioning of the balls is crucially important for T production. Which brings me to the point: Your balls hang in a pouch for a reason. They need to be tad bit cooler than the rest of the body is, to function properly (study, study, study). The testicular StaR (steroid acute regulatory protein) seems to be very sensitive to heat (study, study),
which is a bad thing for all hot-tub lovers, since StaR is responsible for transporting cholesterol to the mitochondria in Leydig cells, where it gets converted to testosterone. This is why cold showers, sleeping naked, wearing loose boxers, etc. are all good ways to increase T levels.

- **Reduce plastic exposure:** Plastics tend to contain many estrogen mimicking chemicals, such as: Bisphenol A, Bisphenol S, phtlates, and parabens. Many of these xenoestrogens can lower testosterone levels quite significantly (study, study, study, study), which is why you should be avoiding any extra plastic exposure, especially in food and drink containers.

- **Lose the gut:** It's a solid scientific fact that men who have lower levels of body fat, generally have higher levels of testosterone (study, study, study, study). There are two main reasons to this. One is that being fat, impairs Leydig cell functioning in the testicles, and the other is that adipose tissue (that's fat mass in fancy terms), increases aromatase enzyme levels (which is an enzyme that converts testosterone to estrogen). So don't be a fat-ass.

- **Compete:** Deep down on an evolutionary level, competition is what has always driven men. It comes not as a surprise that competition is also something that drives testosterone production, and winning the competition drives it even higher (study, study, study).

- **Have manly hobbies:** Certain manly activities, like chopping wood, hunting, watching sports, and doing successful business, have been linked to increased testosterone levels (study, study, study).

- **Prescription drugs:** There's a massive list of prescription drugs out there which have a side effect of causing low testosterone levels, some of these including: certain hair-loss drugs, acne drugs, blood pressure drugs (mainly spironolactone), statins, SSRI's, opioids, beta blockers, sulfonylurea (diabetes drug), anti-fungals, some anti-psychotics, oxycodone, antihistamines, and even some asthma inhalators.

- **Alcohol:** This topic could fit into the “nutrition” chapter too, but since alcohol can also be a lifestyle question, let's address it here. To put it simply; alcohol tends to hammer testosterone levels (study, study, study, study, study). The many reasons include: reduction in the coenzyme NAD+, increased beta-opioid endorphins, oxidative damage, increased cortisol, and raised aromatase enzyme. To cut you some slack, few drinks won't do much, but as a rule of thumb; don't take more than 4 if your goal is to have healthy T production.
- **Drugs:** If you're user of hard drugs like methadone, heroine, amphetamine and the like, it probably doesn't rustle your jimmie's when I tell you that the habit seriously lowers your testosterone production ([study], [study], [study], [study]). More lesser drug (or actually not a drug at all), marijuana, is linked to reduced testosterone production in some studies ([study], [study], [study], [study]). However there are few studies where this reduction doesn't take place ([study], [study]), and in all studies, the damage is completely reversible in just few days.

## Chapter 2: Training

*Training is an excellent way to stimulate natural testosterone production, and in this chapter, you'll learn how to maximize this effect.*

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- **Aerobic training:** Long endurance-type training like marathon running or hours of steady-state cardio, have been constantly linked to lowered testosterone levels and high stress hormone levels, which is
why those forms of aerobic training should be avoided when optimizing testosterone (study, study, study). High interval intensity training (HIIT), on the other hand, has increased testosterone levels in various studies (study, study, study). These effects are more than likely caused by increased lactic acid levels in the blood (which seem to stimulate testosterone synthesis). HIIT, when done correctly, is also so explosive that it activates the super-fast twitching muscle fibers, which tend to activate androgen receptors (this improves testosterone utilization and boosts T levels even further).

• Strength training: There's a huge library of evidence that shows how strength training increases testosterone levels (study, study, study, study, study, study). For maximal testosterone response - Finnish researchers found out that 5 reps and 5 sets per each movement - is the optimal set:rep pattern (another study saw that 3 sets of 10 reps with short rest intervals was highly effective too). Also, it's better to focus on big multi-joint movements, rather than small isolation ones, since bigger movements = more muscles being worked = bigger testosterone response. So squat, deadlift, shoulder press, bench press, and row. Lift like a man, and your hormones will follow.

• Neuromuscular training: It's been shown that the endocrine system can be stimulated by neuromuscular training. In short, neuromuscular training is like strength training, but you're going to want to activate the same super-fast twitch muscle fibers as in HIIT (to stimulate the androgen receptors). This can be best done with explosive dips, pull-ups, chin-ups, body weight squats, muscle-ups, etc. (more about neuromuscular training can be found from Christopher Walker's TestShock program).

• Relaxation/meditation exercises: Meditation and various relaxation exercises have been linked to significantly lower cortisol levels and improved testosterone to cortisol ratio (study, study, study). It's not a bad idea to include this kind of training into your exercise regimen once in a while.

• Avoid overtraining: There are people who like to claim that there's no such thing as overtraining. Well, let me tell you a secret: those people don't lift big enough weights, or they are using steroids. Don't workout more than 4 times a week (5 if you're an experienced bad-ass). Otherwise you will end up hurting your hormones (study, study, study, study).
Chapter 4: Nutrition

Your diet plays a crucial role in natural testosterone production. Even if your lifestyle and training would be well dialed in, a poor diet can fuck up everything.

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- **Caloric intake:** If you eat too little calories, your testosterone production will suffer ([study, study, study](#)), eat enough, or a slight surplus, and your testosterone levels should increase. Some people think that this means you should hammer the food in your mouth like a machine. That's not a good long-term solution though, since you would get fat, and that would negatively affect T. So calculate your daily needs and eat about that. If you're fat, lose weight first, and then revert back to your normal daily needs.

- **Protein:** In most fitness related diets and nutrition plans, you're told to consume a lot of protein. Not that there's anything wrong with protein, but it's not the most important macronutrient when optimizing testosterone. Sure [chronic protein malnutrition has been linked to reduced T](#), but so are high protein diets too ([study, study](#), study, study).
Furthermore, animal protein seems to be better than plant based for boosting testosterone. So the take home message? Eat about 20% of your daily calories from animal protein.

- **Carbohydrates:** In many “how to boost testosterone” lists on the internet, it’s claimed that you should avoid carbs to increase testosterone. This is absolutely ridiculous statement, considering that high-carb diets are constantly shown to increase testosterone levels, while low-carb ones tend to significantly suppress the production \( \text{(study, study, study, study, study)} \). As a rule of thumb, roughly 40% of your daily calories should come from carbohydrates. Also, due to the fact that gluten may increase prolactin levels, it's a better option to get your carb needs from low-gluten sources, such as: potatoes, turnips, beets, squash, rice, gluten-free grains, etc.

- **Fat:** Dietary fat is often hailed as a testosterone booster, and it's for nothing, since higher fat intakes are constantly shown to increase testosterone levels \( \text{(study, study, study, study)} \). Though it's important to note that there are different types of fats, and not all of them will have the same effect. Saturated fatty-acids (SFAs), and monounsaturated fatty-acids (MUFAs), have both been shown to boost testosterone. While polyunsaturated fatty-acids (PUFAs), and trans-fats have the opposite effect \( \text{(study, study, study, study)} \). As a rule of thumb, roughly 40% of your daily calories should come from SFAs and MUFAs.

- **Cholesterol:** Cholesterol gets a really bad-rep in the media, even though recent evidence has shown that dietary cholesterol intake isn't a culprit for cardiovascular problems. For men, it's also idiotic to lower your cholesterol intake, since cholesterol is a precursor steroid for free testosterone. That's right. The final process in testosterone synthesis, is when the testicular StaR protein transports cholesterol molecules into the mitochondria of leydig cells, where – through a complex process – its converted into testosterone and is released to bloodstream. Hence, why cholesterol (especially the “good” HDL) is positively correlated with increased T levels \( \text{(study, study, study, study, study)} \).

- **Sugar:** Even though carbohydrates can have a positive impact on testosterone - and sugar is a carb – there's still some evidence which shows that high intake of simple sugars (like table sugar, sweets, and so forth) has a negative effect on T \( \text{(study, study, study)} \).
• **Testosterone boosting foods:** There are several foods that fit perfectly into the “rules” you can see above. In [this article](#) I have outlined 30 of them.

• **Organic foods:** It may make you seem like a hippie to eat organic, but several studies have found that herbicides, pesticides, insecticides, and fungicides can negatively impact testosterone production ([study](#), [study](#), [study](#), [study](#), [study](#), [study](#)), which is why you should eat organic foods for the sake of your balls.

• **Intermittent fasting:** Fasting for long periods of time has been shown to reduce testosterone levels. However, short-term fasting – much like the popular intermittent fasting – has shown to increase T. You can [read more about what is intermittent fasting here](#).

# Chapter 4: Supplements

If your lifestyle, diet, and training suck, then no amount of supplements will fix your lagging testosterone levels. However, given that you have them all in good condition, supplements can be used to give you that little “nudge” towards even higher T production.
• **Vitamins and minerals:** Easily the most important testosterone boosting supplement of them all, is a high-quality multivitamin, one that covers your needs for all the vitamins and minerals needed in healthy testosterone production. As a rule of thumb, look for such products that would include the vitamins: A, B-complex, C, D, E, and K2 and the minerals: zinc, magnesium, iodine, selenium, boron, calcium, and copper. Deficiency in any of those will cause serious drops in T.

• **Herbal supplements:** There's a lot of bullshit going on about herbal supplements on the natural testosterone optimization field. Many of the products sold, simply don't work, and are not even based on science. Still, there are some golden nuggets out there. In this post, I have outlined nearly 30 different herbal supplements, some of them are utter rubbish, but some are recommended.

• **Other supplements:** This category would hold the remaining supplements that can do something for testosterone, such as: specific amino-acids, lipids, prescription free meds, aromatase inhibitors, and the like. There are many supplements like these that work, and equally as many that don't. Go to this guide on AM, and see the box titled “other supplements” for more info on them.