

TOTAL TESTOSTERONE S I

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Do not disregard professional medical advice or delay in seeking it because of something you have read in this guide. By participating in the following guide you (the reader) understand that there are risks associated with starting any nutrition or dietary program and hence the reader assumes full responsibility for all actions and outcomes.



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INTRODUCTION

Gree ingc friend and fellow traveler on the path to personal optimization. If you're reading this guide then let's consider ourselves connected through a shared mission. Clearly you have at least a passing interest in optimizing your levels of testosterone and building/maintaining the kind of body and mind that come with that.

Whether you are in your 60's and feeling burnt out, in your 40's and dealing with impotence, in your 20's and struggling to gain muscle or some mixture in between, know that this guide has within it the keys to fundamentally shift the way your body works, feels, and looks and that this is rooted in how you live, eat, sleep, train, and mitigate both internal and environmental stressors.

Throughout this journey we'll be exploring all of these aspects and more with the goal of providing actionable insights that will support you in becoming the most vital, and hormone optimized version of yourself!

Perhaps this is your first foray into such knowledge and you're excited to get started, or perhaps you've been studying and practicing many of these nutritional, lifestyle, and training based practices for years and are simply looking to fine tune, either way, we're certain that you will find some nuggets of gold that you can immediately implement and ideally sustain for the rest of your life.

Our combined experience spans 20+ years across the worlds of health, strength training, bio-mechanics, holistic nutrition, biohacking, herbalism and lifestyle coaching.

This background of information and in the trenches working with clients (hands on and virtually) is what we've drawn upon as well as research from the best sources we can find to create a truly practical and effective guide to optimizing your natural testosterone.

You will find insights from credible and well performed scientific studies, as well as first hand accounts from our personal experiences and insights gleaned from working with clients.

Ultimately, no one can walk the path for you, and your path must by definition be different than ours, that said, there are many commonalities and things that are going to benefit virtually all of us and so we encourage you to use this resource as a guide that will enable you to run experiments, collect data, see what works, see what doesn't, and create your unique recipe for optimal testosterone and male hormonal balance.



BEFORE YOU CONTINUE ON FURTHER IN THE GUIDE MAKE SURE TO JOIN THE SUPPORT GROUP NOW BY CLICKING THE LINK BELOW.



CLICK HERE TO JOIN THE SUPPORT GROUP

https://www.facebook.com/groups/793079051457729/

In this group you will join everyone else who is doing the program. Here you can share your testosterone values, share your experiences/successes, tell others in the group what is working and what is not, and get insight and feedback from a like minded group of individuals.

Long story short, you will have far more success in optimizing your testosterone by being a part of this group because you will have support from everyone else currently doing it.

What's done in a group setting is often times more powerful than anything you can do on your own so make sure to join the group now before continuing on!



HOW TO USE THIS GUIDE & WHAT TO EXPECT

THIS GUIDE WHICH YOU ARE NOW READING IS THE MAIN DOCUMENT TO TOTAL TESTOSTERONE SOLUTION.

To see a full breakdown of what is included in this PDF see the **Table of Contents** posted above.

THERE ARE TWO THINGS YOU SHOULD ALSO HAVE IN TANDEM WITH THIS PDF THESE ARE:

• TOTAL TESTOSTERONE – MEAL PLAN A

• TOTAL TESTOSTERONE – MEAL PLAN B

THESE ARE SEPARATE PDFS INCLUDING DIFFERENT MEAL PLANS.

If you didn't receive these at checkout, then email Blake at

Blake@guerrillazen.com

We are not going to talk much about these meals plans in this document because they are pretty straight forward. What we've created is two full meal plans containing testosterone supporting foods.

There are TONS of recipes in both of these meal plans for you to alternate for diversity.

As you know, nutrition is one of the MOST important factors in supporting optimal testosterone.

The rest of this document is going to be mainly focused on lifestyle modifications, supplements, and workouts designed to support your testosterone with little reference to the meals plans.

It will be assumed that you are following along with the meal plan guides in tandem with you doing the things discussed in this document.



HOW DOES THIS DOCUMENT WORK?

As we said above, this document mostly contains lifestyle modifications, herbs, supplements, bio-hacks, and workouts designed to support testosterone in tandem with the meal plans being followed.

THIS DOCUMENT WILL COVER THE FOLLOWING SECTIONS:

- 1. Understanding what testosterone really is and what it does.
- 2. How to measure and assess your current testosterone levels.
- 3. Lifestyle modifications to enhance your ability to create testosterone in optimal levels.
- 4. Herbs, supplements, and biohacks for testosterone optimization.
- 5. How to train your body for maximum muscle growth and testosterone production.

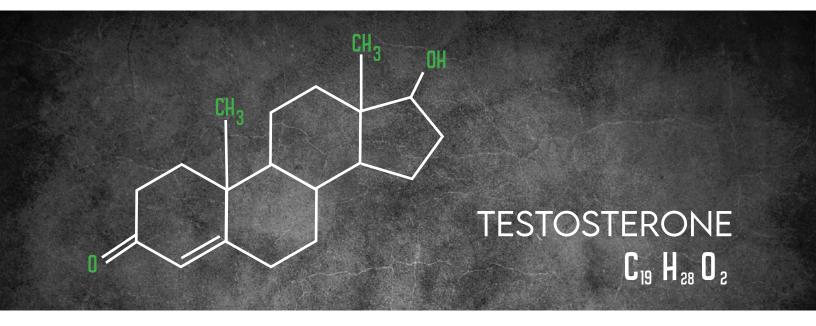
There is a lot we jump into with regard to the topics above.

Don't feel overwhelmed by all the information contained in this guide because you do not need to incorporate everything at once.

START SMALL! Remember, this is more of a lifestyle than a quick fix. If you are really struggling with where to begin here then **start with the companion meal plans** and **2-3 items** from the lifestyle section. The cheat sheets at the end of this guide help to summarize these points in one place.

As you go along you can gradually incorporate more and more things from this guide.





WHAT IS TESTOSTERONE REALLY?

Testosterone simply describes a couple of androgenic / anabolic hormones that act on specific receptor sites and tissues to illicit changes in metabolic function, mood, hair growth, muscle growth, etc...

The two kinds that we'll talk about are Testosterone and Di-Hydro-Testosterone (DHT).

Testosterone is: "a steroid hormone that stimulates development of male secondary sexual characteristics, produced mainly in the testes, but also in the ovaries and adrenal cortex."

It's responsible for pretty much all masculine characteristics (strength, confidence, muscle mass, libido, etc...).

Although women have and create testosterone as well, adult men should have 7 - 8 x more testosterone comparitively.

DHT is produced when Testosterone goes down the 5 alpha reductase pathway of hormone bio-genesis. DHT can also be created from a hormone called Androstanediol through the "back door" method of synthesis.

DHT tends to be stronger in its impact, up to 5x according to popular opinion, and has been characterized, mistakenly or otherwise, to be a causative agent in male pattern baldness (listen to the GZF podcast on episode on this), hyper-aggression, body hair growth, acne, and other potentially undesirable effects.





We have strong doubts that the science which demonstrates these relationships has taken a big picture understanding of the matter and hence are not convinced of its accuracy, however, just remember that both forms are natural. We make both in our bodies via different hormone synthesis pathways/processes, and that they have distinct effects and tissues in which they are most active.

In terms of what you will be looking at on a hormone test (if you decide to get blood work), there will be the distinction between free, bound, and tightly bound testosterone. These are talked about in the coming section on how to measure and assess your testosterone. They are something we have to be aware of when looking at our overall picture of hormone health.

For a chart that depicts the Steroid Synthesis Pathways in depth click HERE (warning, this is pretty technical).

LONG STORY SHORT, IF YOU WANT MORE:

Muscle Mass
 Confidence
 Dominance
 Sex Drive
 Strength

...and a leaner body then you must pay attention to your levels of testosterone. Optimal levels make these things easy to achieve whereas low levels will make them almost impossible.





THE PREVALENCE OF LOW TESTOSTERONE & ITS NEGATIVE IMPACT

Low testosterone is a big issue these days and the number of men and even women who are negatively affected is hard to comprehend. As we'll discuss in more detail throughout this guide, there are many factors that when combined create the perfect scenario for killing our testosterone and increasing stress hormones (like cortisol) and estrogens.

Testosterone is crucially important for things like building and maintaining muscle mass, supporting energy, immunity, reproductive health, libido, motivation, positive mood, etc...

It is imperative that if we're experiencing a challenge in one or more of these areas, that we investigate the role of testosterone and do what we can to support its proper functioning **BEFORE** we go out and consider something more extreme.

You are not broken and your body is always doing its best given the circumstances, however, you likely find yourself surrounded by a system that is dysfunctional by design and which profits from sickness and therefore is incentivized to keep you tired, stressed, depressed, and low in the vitality amplifying testosterone.



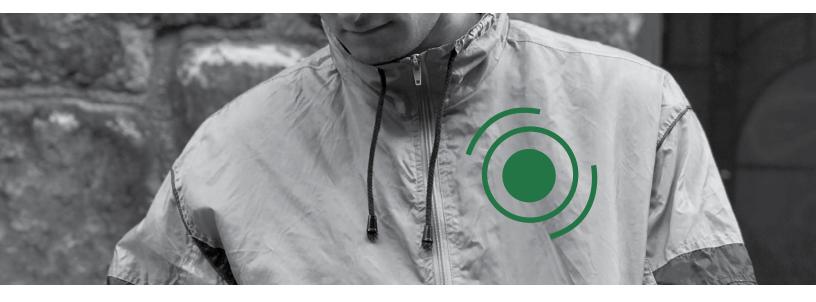
When you look out at the world today you can see the impact that this low testosterone epidemic is having. It does seem to be the worse in the more industrialized countries because this is where folks tend to be more sedentary, living indoors, exposed to more chemicals in food and personal care products, cut off from nature/physical labor, and addicted to technology.

These conveniences provide endless comfort while allowing the body and mind to weaken and wither away. This is clearly **NOT** the direction we should be heading in.



We have father's who don't have the drive or strength to lead and be positive role models for their children, we have young folks who are dealing with terrible hormonal imbalances during and throughout puberty, leading to low libido, low confidence, inability to take risks, inability to solve problems, and a general apathy towards life.





We also have extremely high rates of heart disease and continually growing rates of prostate cancers as well as the epidemic of obesity and diabetes...

For the first time ever, there are studies suggesting that Millenials (those born 1995–2010) will be sicker and poorer than previous generations and it's easy to see how the steady decline in testosterone over the preceding decades is tied in to this rather bleak projected future for so many.

It's really hard to become healthy, financially free, sexually confident and able to take risks/ solve problems when you are lacking in the male hormones that enable those kinds of behaviours. This applies to both sexes.

That said, there is always hope, and the fact that you are here now reading this information and taking action to improve your own natural hormone balance speaks to the potential for turning things around, growing stronger, thinking clearer, seeing the truth around health, food, nutrition, exercise, and more!

The truth is that when we get rid of that which inhibits health, the body can regenerate its strength and capacity, thereby allowing us to flourish and thrive to the best of our ability even if the odds are stacked against us.

So stay excited and read on as we dive into the specifics of how to go about doing all of this wonderful work. Pay very close attention to the next section where we discuss how to measure and quantify your testosterone.

They say "what gets measured gets improved". If you don't know what your hormonal status is now, then it will be very hard for you to track your progress as you move throughout the techniques described later in this program....



HOW TO MEASURE AND ASSESS TESTOSTERONE

MEASURING TESTOSTERONE LEVELS AT THE DOCTOR'S OFFICE

When it comes to lab tests and understanding your levels of testosterone there are a few things we have to keep in mind which have big implications.

THERE ARE THREE KINDS OF TESTOSTERONE MEASUREMENTS WE TYPICALLY SEE IN BLOOD WORK:

• TIGHTLY BOUND TESTOSTERONE which accounts for about two-thirds of the testosterone in your blood and is bound to sex hormone binding globulin (SHBG) which means your body can't use it.

• LOOSELY BOUND TESTOSTERONE. About one-third of the testosterone in your blood is bound to albumin. Your body can use it, but with some effort.

• FREE TESTOSTERONE. A small percentage of the testosterone in your blood (1-4%, on avg) floats around freely. Your body can readily use it, and the enzyme 5-alpha-reductase can convert it to DHT, a very potent androgen.

Together, your **loosely-bound** and **free testosterone** compose your **bioavailable testosterone**, which has a greater impact on your health than your total testosterone.

BIOAVAILABLE means your body is able to use it. If it is not bioavailable (*like tightly bound testosterone*) then it is functionally not doing anything.

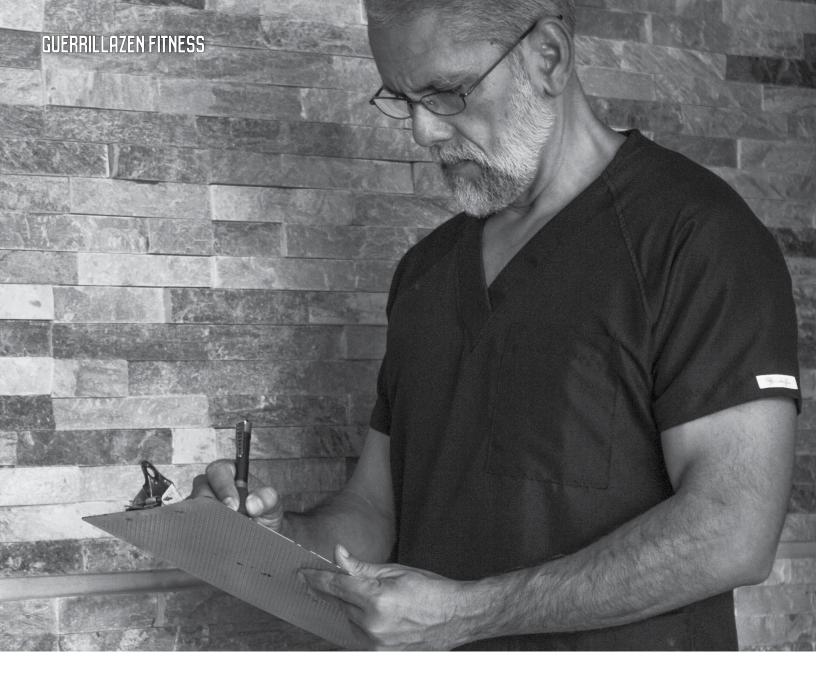
See link HERE for more info about this breakdown in types of testosterone. If you go to a doctor and ask for a testosterone test, you may not receive all the above values.

Oftentimes, what will be measured is total testosterone, and if that's in the "normal range" your doctor may assure you that nothing is wrong.

Meanwhile, you might have virtually no free testosterone or loosely bound testosterone in your body at...

This is potentially a big problem.





As with all professions, there are good and bad professionals.

The best doctors, in our opinion, are functional medicine doctors. They attempt to find the root cause of most issues and would likely know of the importance of differentiating between a total testosterone test and one that shows loosely bound and free testosterone.

Either way, as we mentioned at the end of the last section "what gets measured gets improved".

We encourage you to work with your doctor to figure out where your testosterone levels are at before implementing the things we talk about in this program in later sections. This way you will know your baseline and be able to tell what is working and what is not working.

Just make sure you are getting blood work that will show your bioavailable testosterone (free and loosely bound).



MEASURING TESTOSTERONE LEVELS ON YOUR OWN

Luckily, in 2020 (the time of this writing) you don't actually need to visit a doctor's office to get blood work done anymore. You can now use companies like this one:

Direct Labs >>> www.DirectLabs.com/GuerrillaZen

With a service like this, depending on the state you live in, you can bypass the middleman.

HERE'S HOW IT WORKS:

- 1 | BUY THE TEST YOU NEED FROM: WWW.DIRECTLABS.COM/GUERRILLAZEN
- 2 | PRINT THE REQUISITION FORM
- 3 | MAKE AN APPOINTMENT FOR A BLOOD DRAW AT A LOCAL QUEST DIAGNOSTIC (THESE ARE ALL OVER THE PLACE IN THE US) HTTPS://WWW.QUESTDIAGNOSTICS.COM/
- 4 | GO IN FOR THE BLOOD DRAW

5 | REVIEW YOUR RESULTS ONLINE ONCE THEY ARE POSTED

IT'S THAT SIMPLE.

What you will be looking for on this website are tests that show your bioavailable testosterone.

Remember, free testosterone is bioavailable testosterone.

As you can see below, you can get a couple of different tests on directlabs. If you want to save money then you may simply want to look at your free testosterone (which is \$59 USD at the time of this writing).

If you want the primo test because you want more data on your testosterone levels (including total amount of testosterone) then you may want to get the more expensive test (which is currently \$289 USD at the time of this writing).





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Testosterone, Free, Bioavailable and Total	I, MS \$289.00	+ Add to Cart
Helpful in assessing testicular function in males and	managing hirsutism, virilization in females read more	Sample Report
Testosterone, Free	\$59.00	+ Add to Cart

Like we said above, this service is state specific...

It's NOT allowed in the states of NJ, NY, and RI.

If your area is not eligible then we recommend having your doctor get your blood work done.

Having your doctor measure your testosterone for you may also be better for you since they can help you interpret that data/result (which we recommend).

Directlabs is for more advanced health hackers who just want access to the raw data and wish to interpret it for themselves at their own risk.



WHY MEASURING Your testosterone Is important

"WHAT GETS MEASURED GETS IMPROVED!"



As we've said several times already ...

We put this section about measuring your testosterone near the beginning of this guide because *right now is when you should get these measurements taken.*

By tracking your testosterone levels at the beginning you will be equipped with a baseline to work with.

This way, when you look back after a few months you can tell what has worked and you'll be able to quantify the changes over time to get a clearer picture of what's going on internally which you can track and relate to your subjective experience and feeling of how things are working or not.

Of course, you could base your progress solely on subjective factors like your energy, strength, libido, etc...

We don't recommend this though because unless you are really in tune with your body then you may not feel a difference although one is actually taking place.

Long story short, before you begin with the rest of this guide we highly recommend you stop here and get your current levels of testosterone checked so you can gauge your progress later on.

Now let's get into the good stuff ...





LIFESTYLE PRACTICES TO ENHANCE TESTOSTERONE PRODUCTION AND FUNCTION

This section is broken down by topic and runs through all of the most important areas to consider when it comes to how you live each day and how that relates to your testosterone levels and overall vitality.

Pay very close attention to these topics because your optimal testosterone levels depend on them.



SLEEP OPTIMIZATION

SLEEP. The ever important activity we do each night wherein our bodies are cleansed and regenerated. Our minds consolidate memories and our subconscious processes after the day's events.

No amount of exercise, nutrition or positive thinking will give you the results you want if you're not getting quality sleep each night. Most of us need a minimum of 8 hours of sleep ...

In order to ensure quality, deep, restful sleep, we're going to lay out the specific action steps you can take that will turn your bedroom into an optimized recovery chamber.

The following bullet points can be printed out or you can choose 5 of them to start with for the first week and then slowly add to your evening routine as time goes on.

Creating an evening routine in itself is valuable because it demonstrates a certain level of dedication and care towards ensuring that your rest is high quality and that you will wake up tomorrow feeling refreshed and ready for the day!

Just remember, nothing will wreck your testosterone levels as fast as sleep deprivation. That's why optimizing your sleep is high on the priority list...

ACTION ITEMS TO IMPROVE SLEEP



• Remove all screens, computers, TV's and tablets etc from your bedroom and limit your use of them after 9pm or for 1–2 hours before bed. If you must use them then install blue light filtering software and/or wear blue blocking glasses.



• Establish regular sleep hours. Try to go to bed and wake up in the morning around the same time every day, even on the weekends.



• Empty your mind into a journal if you find that excess thinking keeps you awake.



• Place your phone on airplane mode and keep it at least 3 feet away from your bed.



• Stop consuming caffeine after 2pm, and if you're really sensitive then stop by 12pm



• Do not turn on bright lights if you get up to use the bathroom, instead use red or amber light bulbs/a red light app on your phone.



• Go to bed before 11:00 pm, preferably by 10:00 pm. Our stress glands, the adrenals, recharge between the hours of 11:00 pm - 1:00 am.



• Consider taking 400–600 mg of Magnesium Glycinate before bed which may help you relax (magnesium is also a precursor to testosterone production).



• Finish eating your last meal/snack at least 2 hours before bed.



• Keep your bedroom slightly cooled if possible (62–66F° or 17–19C°) so that you can drop your core temperature while you sleep.



• Turn off your Wi-Fi if possible (wireless signals coming from electronics are not good for you).



• At night, do not work past the point of feeling drowsy. If you're feeling sleepy while watching television, using the computer or reading, go to bed.



ACTION ITEMS TO IMPROVE SLEEP



• Aim to sleep a minimum of seven to a maximum of nine hours of sleep per night. Oversleeping can be as detrimental as sleep deprivation.



• Go to bed before 11:00 pm, preferably by 10:00 pm. Our stress glands, the adrenals, recharge best between the hours of 11:00 pm – 1:00 am.

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• Sleep in complete darkness. Your room should be as dark as possible to maintain melatonin balance.



• Ensure adequate exposure to daylight by spending time outside during the day with your skin exposed. Make sure you are safe and avoid sunburn.

S*ннн...*

• Avoid using a loud alarm clock. Waking up suddenly can be a shock to your body. If you are regularly getting enough sleep an alarm clock should be unnecessary. Sleeping through an alarm or requiring an alarm daily indicates you may be sleep deprived. If you do use an alarm, ideally you awake just before it goes off.



• Try not to nap during the early evening. If you must nap, do it after lunch or mid afternoon and sleep for no longer than 30 minutes.

7-9

• Try to sleep a minimum of seven to a maximum of nine hours of sleep per night. Oversleeping can be as detrimental as sleep deprivation unless you are suffering from Adrenal fatigue or chronic exhaustion in which case 9–10 hours of deep restful sleep may be what your body requires for a certain period of your recovery.



• If you snore, wake-up with a dry mouth, or have trouble keeping your mouth closed during sleep, consider raising the head of your bed 6 inches with a piece of wood or stack of books and then give yourself a week or so to get used to that position. It can help with brain drainage during sleep as well as maintaining better posture for breathing. Also, look into this product called Somifix which can help you keep your mouth closed during sleep click here.



• Ensure you are using proper pillows and not waking up with aches/pains as this is a surefire sign of poor sleeping position or lack of structural support which overtime will lead to more pain and sleep issues. Remember, when it comes to your bed and sleep setup, this is where you spend 1/3 of your living hours so don't be afraid to invest in high quality bedding/mattresses/pillows and blankets to ensure you get the deepest, most enjoyable sleep possible.

LIGHT EXPOSURE

Avoid artificial blue light after sunset or for 3 hours before bed. You can do this by using software like F.lux or Iris as well as with physical screen filters or even better yet, blue blocking glasses which cover the entire eye. Links to these items can also be found in the Resources Section at the end of this guide.

To make it simple, we want blue light in the morning and afternoon, and amber/orange/ red light in the evening/late night. Amber light doesn't suppress our melatonin (the get good sleep hormone) the same way that blue and green light can.

If you can use a himalayan salt lamp, candles, or amber bulbs/programmable LEDs in the evening it will do wonders for telling your system that it's time to wind down and get ready for a night of great sleep.



OTHER THINGS TO AVOID FOR SLEEP ENHANCEMENT

Avoid alcohol, although alcohol makes you drowsy, the effect is short-lived. The body metabolizes alcohol as you sleep, resulting in sleep interruption.

Alcohol may cause sleep disorders because it seems to affect the brain chemicals that influence sleep. It may also change the amount of time it takes to fall asleep and total sleep time, keeping you from falling into the deeper stages of sleep, where the body does most of its healing.

One glass of wine with dinner will most likely not affect your sleep since it takes about 90 minutes to metabolize 1 ounce of alcohol. However, 1 ounce within 2 hours of bedtime or amounts greater than 1 ounce may disrupt your sleep.

Alcohol is also well known to be a hormonal disrupter and diuretic (something that dehydrates you). As such, highly recommend no consumption of alcohol. At the very least, we recommend extreme mitigation of its consumption.

Save the booz for special celebrations...not nightly relaxation.

Avoid smoking or exposure to nicotine. Like caffeine, nicotine can be stimulating and result in increased heart rate, rapid breathing, increased brain activity and higher levels of stress hormones. This stimulation can make it difficult for most smokers to fall asleep and stay asleep. Smoking can also exacerbate snoring because of the irritation on your airway.

Avoid foods you may be sensitive to. This is particularly true for dairy and wheat products, as they may interrupt sleep and serotonin levels.

Like we said above, to get started, simply take 2–3, (you can always do more later) of these items and structure them into your evening routine so that over time they will become second nature and easy to maintain.

Being consistent with a few things is always better than being half hearted with a dozen.

Less is more in this regard so start slow and build over time



AVOIDING CHEMICAL ESTROGENS & OTHER TOXIC SUBSTANCES

In the quest for optimal testosterone, the avoidance of toxic estrogens through food/alcohol, personal care products, plastics, and other industrial chemicals with hormone disrupting properties is one of the most important areas we can look at.

Because hormones tend to work in balance with one another and for

e n

optimal male hormones we need a relative abundance of testosterone paired with a relative absence of estrogen, when these ratios get flipped bad things happen on a physiological level.

This flipping tends to happen through a multitude of ways, be it from eating estrogenic foods as dietary staples because some guru told us they were good like Tofu and Soy products, Flax seeds, and Licorice Root or from the more widely consumed Hops containing beers which are pretty much the worse thing you can drink if you care about your testosterone.

When these Phyto-Estrogens (phyto meaning plant) are consumed over a long time they may cause lower testosterone and an imbalance between testosterone and estrogen.

In males, high estrogen may be associated with excess fat stored around the chest, excess belly fat, and more.





Now, let's focus on beer for a minute here, particularly, beers containing Hops (which is pretty much all of them except some of the smaller scale/craft brewery operations that are hip to this).

Hops are extremely estrogenic, so much so that the young girls who used to harvest them in medieval Europe were known to start menstruating much earlier than normal because of their massive exposure to these plants.

Similarly, the brewers who made the beer and also handled lots of hops were known to **experience brewer's droop a.k.a. Impotence and erectile dysfunction** as a result of this handling of such a highly estrogenic plant.

What most of us don't know is that Beer traditionally didn't contain hops and it was only after the German Beer Purity Law of 1516 that Hops were mandated as an ingredient if something was to be labeled as beer. Kinda crazy right!?

For more on the history of Hops and their use in beer as well as to discover traditional non-hopped beer and alcohol recipes you can refer to the work of Stephen Harrod Buhner, particularly his books on Healing Testosterone Naturally and Sacred Healing Beers.

And while we're on the topic of book recommendations, if you want to take a deeper dive into all things estrogen, checkout the book Estrogeneration by Anthony Jay.

To take our anti-estrogen tips into the kitchen, we recommend only using glass, stainless steel, and ceramic cookware. Non-stick cookware may leech nasty hormone disrupting chemicals into your food and for this reason alone we should avoid using them.

Also, always opt for "natural" personal care products. Natural toothpaste (Ecodent is a brand we like), natural deodorant (Schmidt's is a brand we like), and castile soap (Dr. Bronner's is a good brand). You can get these all on amazon or at a local health food store.

The things discussed here are very important. Most people focus on what they do need to put into their body to improve testosterone and forget about what they should be avoiding. This is a mistake because the two are equally important.





STRESS MITIGATION

Stress and stress mitigation is another huge one factor in having low or high testosterone.

Why is managing stress so important? Well, it's because negative/ongoing stress is pretty much mutually exclusive to testosterone.

What does that mean? Simply put, the more stress hormones you have circulating around your system the less testosterone you have in circulation.

You will not normally see someone who is chronically stressed also have optimal levels of sex hormones (especially testosterone).

Think about it from an biology perspective, when stress is high and survival at risk, it's not particularly important be having lots of sex and making children. Those things are for when times are good and plentiful, stress is lower, and libido/fertility are high.

As such, stress mitigation is very important to keep in mind and make a focus when the goal is optimization of testosterone levels.



CORTISOL

WE CAN'T TALK ABOUT STRESS MITIGATION WITHOUT TALKING ABOUT CORTISOL.

Cortisol is the primary stress hormone synthesized in the adrenal glands and released when the body is under stress. This is the very same hormone that seems to downregulate the release of testosterone in the body as seen in the study linked below.



https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3880087/

In tandem with potentially reducing the amount of testosterone, uncontrolled levels of cortisol can also lead to:

- 1. Body fat gain (specifically around the midsection)
- 2. Cognitive impairment
- 3. Weakened immunity
- 4. Muscle wasting

And much much more ...

If you suspect your levels of cortisol are high beyond normal then we suggest you see a doctor for screening.

Of course a stressful lifestyle can contribute to high stress.

Even our environment and political climate can do this (especially in 2020 at the time of this writing).

However, sometimes there is a more serious underlying issue like Cushing's syndrome, liver or kidney issues, serious injury, illness, etc...

Like we said, if you suspect you have abnormally high levels of cortisol then we advise getting screened by a physician.

Now that we know that stress is the #1 killer of testosterone...let's talk about what we can do about it!





STRESS RELIEVING ROUTINES

One of the most impactful ways to mitigate stress is to get into a good morning routine or meditation (even better to combine the two).

The way you start your day has a giant impact on the way the whole day unfolds for you. It sets the tone if you will...

- Start your day with chaos and more chaos and stress will follow.
- Start your day with *peace, reflection, meditation,* and *good vibes* and more of that will follow.

What we are about to show you is a systematic morning routine we suggest you go through.

THIS MAY SEEM A LITTLE STRANGE SINCE THIS GUIDE IS ABOUT BOOSTING TESTOSTERONE AND NOT "FINDING INNER PEACE", BUT BELIEVE US...THIS IS A VERY IMPORTANT STEP.



HERE'S THE SYSTEMATIC FORMULA TO FOLLOW IN THE MORNING:



Drink a tall glass of water with lemon and a pinch of sea salt added to it right after you wake up (bonus: salt can actually mitigate the release of cortisol).

Sit down alone in a quiet space with a journal for 5 min or less and write down the following:

- Everything you have to do that day(based on priority)
- b. Five Things you are grateful for
- c. One big lesson you learned from the previous day





Close the journal, lay down or remain seated, and do this guided meditation: CLICK HERE TO LISTEN TO THE MEDITATION

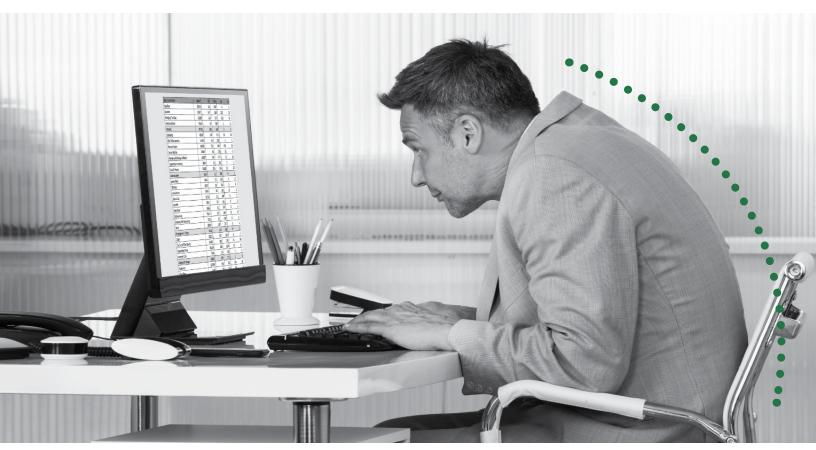
> a. You don't have to use this meditation, but we do want you doing some sort of silent reflection for 5-10min. Check out an app called headspace OR brain.fm if you are looking for more variety.

This is the first thing we want you doing every day on the program. It may seem simple (and that's largely because it is), but don't think it's not powerful.

If you normally wake up late, chug coffee, and head out the door to work in a frenzy then just imagine how different your life will be when you start your day this way instead. It will be profound!

If you'd like to incorporate some of this into your evening routine then you can repeat steps 2-3 at night just before bed.





POSTURE AND ITS IMPACT ON TESTOSTERONE AND STRESS

It's no secret that posture is important. It's likely how you've discovered GuerrillaZen in the first place because we make a lot of videos on our YouTube channel on posture correction.

HAVING OPTIMAL POSTURE CAN:

- HELP TO PREVENT INJURY
- MAKE YOU STRONGER
- MAKE YOU LOOK BETTER AND MORE CONFIDENT

...and many others things.





However, did you know that optimal posture can also lower your stress and boost testosterone too?

Well, it's true.

Not too long ago Harvard Business School did a study on what they termed "power posing".

Essentially, they took 1 group of people and put them in "power poses". They took another group of people and put them into "low power poses".

Power poses were characterized by expansive postures, taking up a lot of space, and being open (think of a confident person reclining in a lazy boy with his arms behind his head).

Low power poses were characterized by the opposite. These poses involved narrowing of the body and slouching forward (spinal flexion).

Now here's the interesting thing...

The researchers were analyzing the subject's blood testosterone and cortisol and what they found was crazy!

In as little as two minutes of being in a "power pose" testosterone shot up by approximately 25% (don't quote us on that) and cortisol went down by a comparable amount.





The exact opposite happened when the subjects were placed in "low power poses".

Essentially, good posture (expansive and wide) raised testosterone and lowered the stress hormone cortisol by a pretty significant amount in as little as 2 min.

Bad posture (aka low power poses) lowered testosterone and raised stress hormones.

How crazy is that?

IF YOU WANT TO HEAR BLAKE SPEAK ABOUT THIS MORE THEN CHECK OUT HIS TEDX TALK AT THE LINK BELOW THAT IS ALL ABOUT POSTURE:

Blake's TEDx talk at Wayne State University:

https://www.youtube.com/watch?v=JrBmsjgpd4E&list=LLGa2eIAPgjVmxOJ_7-VqZPg&index=1114

All in all, good posture is important for many different reasons. One of them being, good posture seems to raise testosterone, while bad posture seems to lower testosterone.

We've got plenty of videos and instructional materials on improving posture on our website and Youtube channel, so we won't touch on this too much more here.

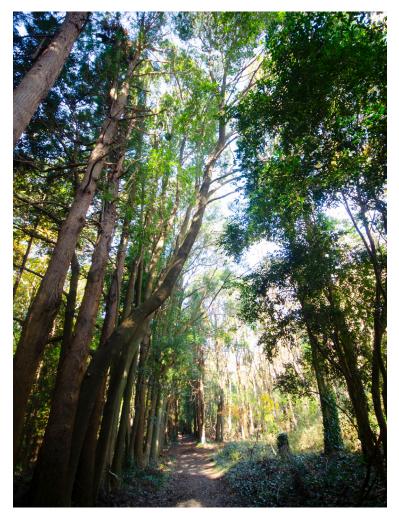


NATURE THERAPY & FOREST BATHING

The practice of forest bathing a.k.a. Shin Rin Yoku in Japanese has gotten more and more popular over the years as stress levels rise and the burden of chronic disease is felt more deeply.

It's clear that medicine needs simple and effective tools they can offer folks that are really struggling and that's where forest bathing shines.

It is quite simply, spending time away from technology and immersed in natural, green environments and doing so with a certain degree of mindfulness as one might in a moving meditation.



It's been demonstrated that forest bathing,

as opposed to exposure to an urban environment can have beneficial effects on blood pressure, lowering cortisol, and increasing our parasympathetic nervous system response, thus indicating lower stress levels.

Link to a scientific review on the subject can be found here.

To practice this, just take 30 minutes or more of undistracted time out in the woods or a natural area near your house and notice how effectively it shifts you into a more relaxed and positive state.

We also made a youtube video on this if you want to check it out. Click the link below: https://youtu.be/nltpMPWQy80





LAUGHING & POSITIVE SOCIAL INTERACTION

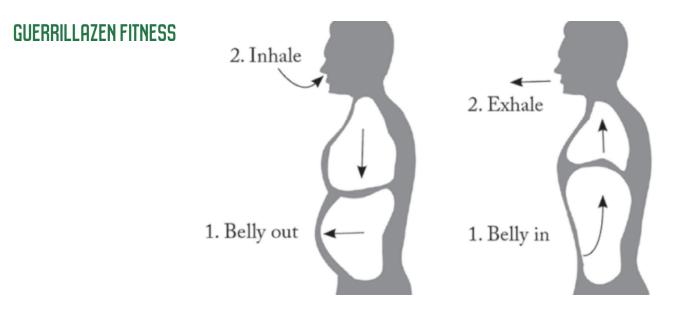
It may sound too simple but prioritizing social time with people you care about and being able to joke, laugh, and play in those settings is incredibly beneficial for health and effective for mitigating stress.

You've felt this in the past and at the time of this writing (mid 2020) it's become more obvious how important it is to have quality time and human connection in order to stay healthy and mentally well.

Isolation destroys human health and raises all of the stress hormones whereas time with others that is full of joy and love and connection does the exact opposite.

The hormonal impacts have been studied and can be looked at in more depth here.





DIAPHRAGMATIC BREATHING

Belly breathing, yogic breathing, deep diaphragmatic breathing etc. it all essentially has the same effect. Less stress, more oxygen, less cortisol, better mood, and enhanced present moment awareness.

The simplest and most accessible way to start to take control of stress in your life is through your breathing.

This can be done simply by resting one hand on your belly and then noticing it rise as you inhale from your diaphragm, and fall as you exhale.

Check out a video Blake made on this many years ago: https://youtu.be/Jc91qZPjamY

Most of us breathe shallowly through the chest and this kind of breathing further exacerbates stress hormones, instead, slow down and force yourself to expand your belly as your primary means of breathing and notice how everything softens after 5–10 of these.

This is great to do before eating a meal, having an important call or meeting, or whenever you feel your stress start to rise.

For some of the research behind this (though you will feel the difference immediately once you begin this practice) checkout this link where they describe in more detail how this kind of breathing can contribute to overall health and wellness.

On a concluding note, it's very important that you are breathing through your nose. Nose breathing helps turn off the fight or flight response. As such, it may lower stress and allow your body to make more testosterone. Breathing through the mouth can have the opposite effect.





THINGS TO AVOID THAT NEGATIVELY IMPACT TESTOSTERONE

As we conclude our discussion around stress, we wanted to go over some things to avoid as they can actually raise stress.

For a full exploration of related factors that increase stress, checkout this article from our friends at selfhacked.com where they lay out in more detail many of the factors that are commonly contributing to our overall stress.

That said, we want to highlight one particular stress causing activity/technology below because it so often goes unchecked and the more we learn about it the more we see how damaging it is to the brain, body, and human spirit (especially in children who are given unfettered access to it).





SMARTPHONE & SOCIAL MEDIA ADDICTION:

This one is tricky and very insidious because for many of us, our smartphones and laptops are essential parts of our social and business lives and yet, because they are designed to be addictive and stimulating they can really trigger some unnatural and detrimental effects on our bodies stress response.

Take for example when you wake up in the morning, if the first thing you do is turn your phone off of airplane mode and check texts/email/social media then you're giving your brain the signal that there may be urgent problems to attend to and that it is no longer safe to be relaxed.

Instead, if you wait 30 minutes to an hour or more before taking your phone off airplane mode and first drink water, journal, meditate, move, and make a plan for the day etc...

Then by the time you let the outside world in via the internet and your phone you are already well on your way to regulating your circadian rhythm and establishing yourself in a more stable and calm flow of productivity and presence.

In order to put this into practice, simply set an hour after waking up and 1 hour before bed as your **TECH FREE TIME** and watch as your stress decreases, ability to be present and calm increases, sleep quality goes up, and your overall feeling of connectedness to self and others is enhanced.

WARNING taking this level of distance from apps and social media and messaging can be stressful at first but as you get more organized and realize that the world isn't going to end if someone doesn't hear back from you immediately, you'll be able to relax and truly cherish that time you've carved out for yourself and your loved ones.



MORE LIFESTYLE HABITS TO AVOID

Many people live toxic lifestyles that contribute to their inability to create testosterone in optimal quantities naturally.

Here is a list of everything that is bad and will crush your testosterone levels so make sure you are avoiding these as much as possible.



• Excessive drinking of alcohol (especially beer).



• Cooking in non stick pans like teflon (always use stainless steel, glass, and ceramic cookware instead).



• Using harsh soaps, detergents, and deodorants.

- Many of these have hormone disrupting chemicals, so go for the natural versions whenever possible.



• Synthetic fragrances (sprays, electrical plugins, etc...) almost all synthetic fragrances are hormone disrupting.

WE ALREADY TOUCHED ON THESE, BUT WE JUST WANTED TO REMIND YOU OF THEIR NEGATIVE IMPACTS!





HERBS, FOODS, NUTRIENTS AND BIO-HACKS TO SUPPORT TESTOSTERONE

This section will explore the foods (herbs and mushrooms), supplements, and bio hacks that have been proven to slow the release of cortisol and/or directly support hormone health and testosterone status.

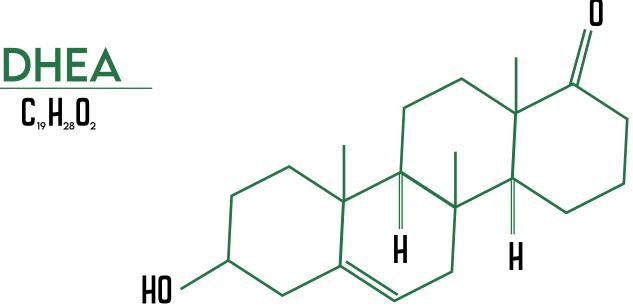
In this section we will review some of our favorites and give tips for dosing and sourcing.

We'll round this section out with a discussion of more lifestyle based factors and a few pieces of biohacking technology that can further support hormone health and optimal energy.

As always, be sure to consult with your doctor or qualified health practitioner before taking action on anything you learn about in this guide. This is not medical advice and we are not medical professionals!

Another note, if you've not checked out the TOP 5 Testosterone Boosting Foods FREE PDF guide then click here to download it and give it a read through because this information will compliment and deepen the content shared in that introductory guide.





DHEA is itself a hormone and is a steroid hormone precursor that is commonly sold over the counter in some countries while it needs a prescription in others.

Its use in anything above the 15mg/day range should only be done on a prescription basis because being that it is a hormone, it can have potentially negative effects if taken improperly or casually.

Meaning, it could in fact lead to higher estrogen levels if you are not synthesizing testosterone effectively.

It could also lead to potential down regulation of your natural hormone levels or developing a dependency on it due to the negative feedback loop associated with hormones.

That said, it can be a life changer and really supportive, especially in middle aged and older folks undergoing high levels of stress.

It can even be used to help adapt to the stress of a high intensity interval training regimen as evidenced by the study linked below.

https://pubmed.ncbi.nlm.nih.gov/23417481/

Again, measure your levels, optimize diet and lifestyle, and then consider working with a doctor to take exogenous hormones. There are no shortcuts to lifelong health so be wise and take things in a step by step fashion for the best and most sustainable results.





ASHWAGANDHA

Specifically KSM 66 which is one of the best studied and standardized extract forms of Ashwagandha, is an adaptogenic herb that's been used for thousands of years in Ayurvedic medicine.

Ashwagandha is commonly used by athletes and those suffering from fatigue for its energy, sexual health, power and stamina increasing effects which work in tandem with its proven stress decreasing effects.

According to research data Ashwagandha can improve testosterone in infertile men as well as men undergoing a strength training program which, if you're here and already training or getting ready to train with the program suggested in this guide, applies to you.

Furthermore it helps decrease stress levels while supporting thyroid hormone levels and reducing inflammation as evidenced by decreased C-Reactive Protein levels in blood.

We like to take Ashwagandha in a 3-5 gram serving either in the morning with a smoothie or elixir or, before bed with a little bit of honey and almond milk as is more traditional in Ayurveda to encourage better sleep and adrenal recovery overnight.





L-THEANINE

This is an amino acid commonly found in green tea that is also sold as a supplement because it's been shown to improve sleep quality as well as promote alpha (aka calm focus) brain states upon its ingestion.

This is due to the fact that it can potentiate GABA activity in the brain which is associated with winding down, relaxing, and feeling chilled out.

We think this is part of why monks are so into green tea and why studious folks are constantly drinking it.

As for dosing, 100–200mg, 1–2 times per day is usually plenty although extreme cases of anxiety may warrant larger/more frequent doses.

We often take 200mgs with a cup of coffee to balance out the stimulation effect of the caffeine and coffee polyphenols and find that to be a great starting place for a lot of folks who find coffee too stimulating.

Side note, if you enjoy coffee but often find it too stimulating, remember to never have it first thing in the morning and to wait a couple hours after waking/30 minutes after eating before drinking it and see how that helps keep your blood sugars and energy more balanced.

Theanine can also be taken before bed to enhance sleep quality and thus, allow the body a more regenerative, testosterone supporting night of sleep.





REISHI

Reishi aka Ganoderma Lucidum mushrooms and their extracts (teas, tinctures, powders etc.) have long been used as stress reducing/immunity enhancing tonics and are a great tool to have as part of any long term wellness strategy.

Reishi works to modulate the immune system, reduce inflammation, improve brain function, liver function, and strengthen the body-mind-spirit overall.

Folks who take it generally feel a growing sense of overall wellness which can increase with time as it builds up in the system and helps to maintain resilience to stress.

It's a truly remarkable mushroom, one that was said to "save the academic from his own mind." in traditional chinese medicine proverbs and for all of these reasons, it's why we included it as a key ingredient in Zen Blend, **our adaptogenic Cocoa elixir via our sister supplement company** Potentia Wellness.

Some of the Reishis can be wild foraged for free (don't do this unless you are an expert), others will have to be purchased from international sources, and all of them can play a powerful role in your quest towards feeling and performing at your very best!

750-1500mg of a quality hot water or dual extract per day is usually plenty.





NETTLE ROOT

This is one of those supports you can forage for free if you happen to have Nettles in your local environment (again, don't forage any wild thing unless you are an expert or have one to forage with) and although the roots are the part you'll want for testosterone and prostate support, the greens can also be cooked as a vegetable and or dried and used in teas/broths.

The way that Nettles support testosterone are numerous though we'll just focus on a couple here.

One, being that it is a great source of many vitamins and minerals including Zinc, and is very protein rich as far as green leafy plants go.

The other way that Nettle root functions is by inhibiting **Sex Hormone Binding Globulin (SHBG)**, thereby preventing DHT from being bound up and rendered inactive in the body. In this way, we aren't actually increasing the production of testosterone, rather we're "freeing up" the DHT that is always present giving us the effect of higher testosterone levels"

You can find this from health food stores in tea and tincture form and typically 2–3 bags or tea or 1–2ml of a standardized tincture is plenty for a daily dose.



TONGKAT ALI

Eurycoma longifolia, also known as Longjack or Malaysian Ginseng is a herb traditionally used for male enhancement and although the research is not conclusive, it is very promising in the realms of supporting testosterone, stress mitigation, sexual vigour, and muscle strength/size.

When taking the extracts of this powerful plant, follow the guidelines from a trusted source such as Lost Empire Herbs and do the suggested 5 days on 2 days off.

You will usually find this herb as a 100 or 200:1 extract which is why you only require very little to get the desired effects.

And although the research is not conclusive, we've tried this one ourselves and always noticed a clear difference when taking vs not taking it be that in the gym or in the bedroom and for that reason, we've included it here for your consideration.

Be warned, it tastes horrible!







BLACK ANT EXTRACT A.K.A. POLYRACHIS BLACK ANT

Yes, this one is exactly what it sounds like. We all know that ants are incredibly strong and resilient and yet, in the west at least, we don't consider these a valuable food like they do in many parts of the world.

Black Ant has been used for thousands of years in Chinese Herbal Medicine and is known as the herb of kings and the premiere Yin Jing tonic.

It can be used to support brain health, sexual health, hormone balance, endurance, and much more.

Some of this is due to the fact that according to nutritional science, **Black Ant is the most** dense food source of Zinc on the planet which we know to be essential and oftentimes hard to get enough of via standard foods.

If you're eating a plant based and don't want to eat meat, consider Ants as an ideal intermediate that will provide you with that hormone supporting **Zinc**, **Protein**, **fatty acids**, **ATP**, and other trace elements that are essential for thriving.

Standardized extracts are the way to go for therapeutic purposes so look for 10:1 or 20:1 extracts on whatever products you research.

We like the ones from VitaJing.com or LostEmpireHerbs.com which both come from a high pristine mountain region in China and therefore produce the best quality Ant extracts and will include dosing information on their products.

For a more in depth exploration on the unique characteristics and nutritional value of Black Ant visit the following link:

https://pdfs.semanticscholar.org/2537/00db729cee56c41fef2253fad11954126ae2.pdf





PINE POLLEN & PINE NUTS

Pine pollen is one of the most popular and powerful testosterone boosting substances known in the natural world, this is because it literally contains bio-identical testosterone in what is called Phyto (or plant) testosterone. It's been used for generations in Chinese Medicine as a vitality booster and Male tonic and relatively recently made the jump into Western herbalism.

Whereas Pine Nuts seem to contain small amounts of testosterone, the pollen is where it is most heavily concentrated. One must be careful with using this because like any hormone therapy, there is a chance of reducing your body's own production if you use it regularly, leading to atrophy of the testes and potentially life-long dependence.

Check with your physician to learn if this is ok for you.

BRAZIL NUTS

These tasty and nutritious nuts have a reputation for supporting male reproductive health and boosting vitality due to their remarkably high Selenium content. Selenium, a mineral essential for reproduction, immune health, antioxidant protection, and converting inactive Thyroid hormone a.k.a. T4 into active T3, thus enabling healthy metabolism and growth.

Many folks associate Brazil nuts and their Selenium content with improved testosterone but there isn't solid science to back that up as a direct claim, however, because we know that Selenium as well as Vitamin E which Brazil nuts also contain, are essential for Sperm health/quality as well as Thyroid function, we can make the indirect connection that by supporting these factors of health, testosterone, and/or libido may be improved through Brazil nut consumption.

Many experts will tell you to limit consumption to 1-3 large Brazil nuts per day because of the risk for Selenium toxicity.





CULINARY MUSHROOMS

Mushrooms play a valuable role in any diet/nutrition program for many reasons. One that we're focused on here in particular is their ability to help the body block the production of excess estrogens.

This happens because multiple varieties of mushrooms such as Shiitake, Portobello, Cremini, and especially **Baby Buttons (Agaricus Bisporous) and Agaricus Blazei** all possess anti-aromatase activity which means that they block the conversion of Androgens to Estrogen.

This helps to maintain a high level of androgens and with that, a higher ratio of testosterone to estrogen which is a very good thing if we want to feel, look, and perform at our best!





PUMPKIN SEEDS

Our last and certainly not least bonus food that we want to highlight are pumpkin seeds. These are easy to travel with, easy to sprout (make the best sprouts ever!), and loaded with nutrients, particularly antioxidants like carotenoids and Vitamin E, Magnesium, Zinc, Protein, and fatty acids.

As you know by now, these are important nutrients to support testosterone function and it's nice to know if you might lean on a more plant heavy approach that a serving of pumpkin seeds or Brazil Nuts as mentioned above, can supply some of the nutrients you might otherwise struggle to get when avoiding meat/seafoods which are typically still the best sources of things like Zinc, Selenium, and B Vitamins.

Similar to Brazil Nuts, you don't want to rely too heavily on nuts and seeds as dietary staples as they can be high in anti-nutrients like lectins, phytic acid, and polyunsaturated fats which can lead to inflammation if over consumed.

The key which is extremely important for anyone on a plant based diet is that you are at a minimum soaking your nuts and seeds or, even better, you are sprouting some of them.

The ones that can be sprouted include almonds, sunflower seeds, pumpkin seeds, chia seeds, buckwheat etc. Not all of them are capable of sprouting, such as cashews and brazil nuts which can still be soaked to improve digestibility.

Nuts and seeds contain digestive inhibitors so eating lots of them in a raw/untreated state can lead to gut issues like indigestion and inflammation AND these inhibitors will directly prevent us from absorbing the essential nutrients that we're after in the first place.

For these reasons, **be sure to soak, sprout, or at the very least, low temperature roast** your seeds to render them not only tastier but also more nutritious!





WHERE TO START WITH FOODS HERBS AND SUPPLEMENTS

There is a lot in the above writing that we just gave you. We don't want you to feel overwhelmed tho and feel as tho you need to take all of these things.

We simply wanted to make you aware of some of the most powerful stuff so that you can do your own research/experimentation and determine what's best for you.

The foods can all be incorporated all at once, but if you are going to experiment/research any of the supplements or herbs mentioned then we recommend you incorporate those one at a time and don't jump onto too many things at once!

Again, if you find this overwhelming then just stick with the external meal plans and consider adding in stuff from this section at a later date!



SUNLIGHT EXPOSURE

Although most of us will be familiar with the benefits of sunlight for the production of vitamin D and dopamine, far fewer are likely aware or practicing the vitality boosting benefits of naked sun tanning, particularly, the habit of getting sun on your testicles.

I know, it sounds weird/too good to be true, and yet for ourselves and the men we know who have tried it the effect is potent and immediate.

Shine sunlight on your testicles for 5-10 minutes, being sure to avoid burning and get ready to feel the surge of energy throughout your body.

In fact, many ancient cultures seem to have been aware of these benefits and practiced them regularly, especially if they were yogis or warriors and wanted their fullest physical potential to be realized.

The science on this goes back to a study in the 1930's in which they experimented with UV exposure to various parts of the body.

The following is an excerpt from an article about this subject via The Sunlight Institute.

"In 1939, Dr. Abraham Myerson measured initial levels of circulating testosterone in men and exposed their various body parts to UV.[ii] After five days of chest exposure sufficient to cause reddening, circulating testosterone increased by 120%. After eight days without additional UV exposure, testosterone returned to initial levels. When the genital area was exposed, testosterone levels increased by 200%!"

Again, this is one of those no lose situations where it's easy, simple, inexpensive, and potentially has a massive pay off.

Try it for yourself. Be sure to be discreet to avoid complaining neighbours or having the police called but give yourself the gift of what nature intended and lose the clothes for a little bit of time each day as you let the power of sunlight work it's magic!

Make sure you do not ever get a sunburn! Try this at your own risk acknowledging what those risks are (like skin cancer).





RED LIGHT THERAPY

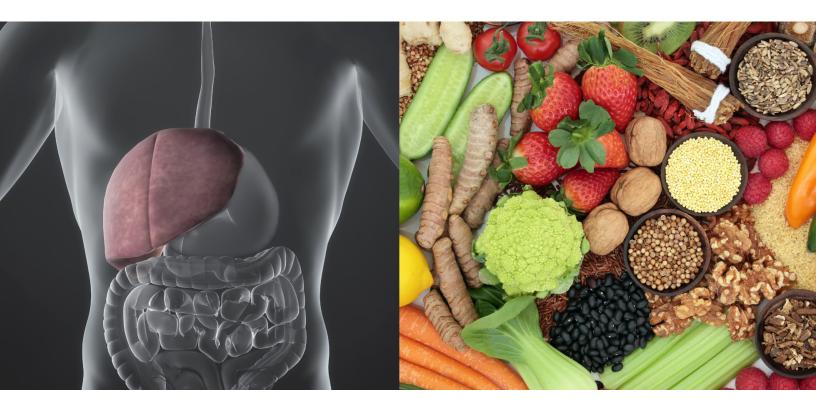
Similar to sunlight, red light therapy can be very useful and can be had simply by purchasing or building a red light therapy device.

These devices improve ATP production, collagen synthesis, and increase circulation and although not FDA approved for testosterone support, simply because they speed up cellular efficiency and energy production, when the testes are exposed to these kinds of light they work better and hence produce more sex hormones, including testosterone.

For the light therapy devices we use and recommend, go to the link below where you can browse a number of devices that range from full body to portable to satisfy any need, learn more and Shop Red Light Therapy here.

It likely also carries lower risks than exposing your testicals to sunlight.





LIVER SUPPORT

Much can be said about the Liver's role in detoxification, hormone transformation and general health of the body and its an organ that needs to be better understood and cared for if we're going to get the most effective results for any health regimen.

It has hundreds of functions and is responsible for detoxing/eliminating excess and toxic hormones such as the ever present estrogens we talked about earlier.

When the liver is sluggish and over burdened as it is for most everyone these days who lives a "normal" life in the modern world, our immune system takes a hit, our energy takes a hit, and our ability to get rid of these inflammatory chemicals and synthetic hormones also takes a hit.

This means that it has to work harder to maintain balance and thus it creates a constant drain of energy and vitality.

Now there are entire books written about liver cleansing and how to do it but for our purposes we'll cover a few herbs and practices that are relatively easy to do and offer a lot of bang for the buck.





LIVER CLEANSING HERBS AND NUTRIENTS:

1. **Milk Thistle:** This is one of the most common and widely known liver protective herbs and for good reason, it's got a tried and true history of use and is effective for helping support against many toxins and chemicals and will help prevent excess damage if/when we are exposed to such things.

Check with your physician to learn if this is ok for you.

2. **N-Acetyl-L-Cysteine (NAC):** this is a sulfur containing amino acid that helps to regenerate Glutathione levels in the liver. Glutathione is the liver's most potent antioxidant and taking something like NAC can go a long way to keeping those levels topped up.

Check with your physician to learn if this is ok for you.

3. Alpha Lipoic Acid (ALA): This anti-oxidant compound has cellular protective and energy enhancing effects which lend it quite well to optimizing our testosterone.

Not only does it help neutralize really toxic things, it also helps improve blood sugar control, reduce diabetic neuropathy, and a host of other things.

This will support the liver and your ability to not only optimize hormones but potentially slow down the aging process.

Check with your physician to learn if this is ok for you.

4. Digestive Bitters: "When you taste Bitter, think good for the Liver."





That's how one teacher best connected these two ideas and demonstrated that the regular ingestion of bitter foods and herbs is essential for life long health and particularly, for supporting digestion and liver function.

COMMON EXAMPLES OF BITTER HERBS INCLUDE:

- Gentian
- Dandelion
- Barberry
- Artichoke leaf
- Motherwort
- Chamomile and many many more....

You can find digestive bitters in liquid extracts at your local health food store or online and by taking these on an empty stomach 2–3 times per day, usually 15 minutes before or after meals you'll experience the benefits for yourself.

For more on bitters including recommended brands, checkout this article by Lee Acupuncture which explores the concept in greater detail and recommends some solid companies to look at when sourcing, namely Gaia Herbs, Urban Moonshine, and Herb Pharm.





THOUGHTS ON MASTURBATION, SEX, AND ORGASM

Changing gears from herbs, supplements, and biohacking devices, although it's commonly talked about that abstaining from sexual intercourse and orgasm can raise testosterone, there are a few finer details to make clear so that we can use this information in a practical way.

First, there is clear evidence that after 7 days of abstinence, men can experience a boost in testosterone as evidenced by this study linked below:

https://pubmed.ncbi.nlm.nih.gov/12659241/

Next, it's important to note that self pleasuring doesn't need to end with ejaculation and that the practice of edging, might be what will work best for most men.

Edging is masturbation without ejaculating and instead, engaging in what taoists or tantric yogis would do via breath work.

How you make that work is that when you are starting to feel the urge to ejaculate, you practice stopping, gently pulling the testicles down and away from the body, and squeezing the pelvic floor muscles as if you had to stop peeing midstream.

All the while you are taking a deep breath from the belly then into the chest and head and then sniffing a last bit of air before relaxing the body and doing that breathing sequence 2 more times.

If you want to learn more about this (we know it's weird) then look up Mantak Chia and some of his writings.

This practice may change your life and make you exponentially more capable in the bedroom.





That said, there is debate as to whether things like porn and frequent masturbation have negative effects on testosterone.

There seems to be good evidence that looking at sexual images or porn can increase saliva readings of testosterone as the study below explored, and again it's important to note that these men didn't masturbate or orgasm, they just saw the images and watched the sexual content, link below to that study.

https://pubmed.ncbi.nlm.nih.gov/4001279/

So it seems that a best case scenario would be to regularly experience sexual arousal and yet to discipline ourselves not to reflexively masturbate and ejaculate and instead, to allow that sexual arousal to fuel our creative, business, and training endeavours.

That way we can enjoy sustained periods of higher testosterone without the post ejaculatory crash.

https://examine.com/nutrition/does-ejaculation-affect-testosterone-levels/

Furthermore, understand that casual disconnected sex and masturbation to porn can have a strong impact on ability to healthfully socialize/drive to improve. These both are necessary for finding a high quality, well suited mate with whom you can enjoy many years of high testosterone and sexual vitality with.



WORKOUT PLAN TO STIMULATE TESTOSTERONE Release

Working out and testosterone go hand in hand. However, some movements and exercises will have a big impact on testosterone while others will not.

In general, the movements and exercises that will have the greatest positive impact on testosterone levels are compound movements (ones that use multiple joints and muscles at once).

Examples of compound movements include:

- Pull-ups
- Pushups
- Deadlifts
- Squats
- Lunges

Etc...

These are "big" movements and they are a lot different from "isolation" exercises that attempt to isolate single muscles or groups of muscles and primarily move just one joint.

Examples of isolation exercises that are common, but not great for impacting testosterone levels are:

- Bicep curls
- Shoulder raises
- Tricep extensions

Etc...



These are not "bad" exercises...they are just not the most optimal choices for the purpose of stimulating testosterone release. Keep in mind here, that we typically like to say "compound movements" vs "compound exercises".

THE REASON FOR THIS IS SIMPLE, IT'S THE PATTERN OF MOVEMENT THAT IS IMPORTANT, NOT THE EXERCISE ITSELF.

The main compound movements are:

- 1 | Pushing/Pressing
- 2 | Pulling
- 3 | Squatting
- 4 | Lunging
- 5 | Hinging

THERE ARE UNLIMITED EXERCISES THAT CAN FIT THESE CATEGORIES OF COMPOUND MOVEMENTS.

For example, the compound movement of pulling could be any of the following "exercises"

- Dumbbell Rows Cable Rows Pull ups Kettlebell Rows
- Lat Pull Downs
 Barbell Rows
 Bent over dumbbell rows
- Single arm lat pull downs

The point we are trying to make here is that it's not the selected exercise that is important. What is important is that the exercise selected is a compound movement and not an isolation movement.

The "bigger" the movement (meaning the more muscle fibers, joints, and individual muscles the exercise uses) the better for boosting testosterone that exercise is.

Now that we have established that, here is a sample week long workout plan that can be performed week after week alongside the rest of this guide to boost testosterone.

These workouts are all centered around compound exercises. Remember, these are "big" exercises that use multiple joints and muscles at the same time.

These are proven to be the most beneficial exercises for testosterone stimulation.



3 DAY COMPOUND EXERCISE WORKOUT SPLIT

These workouts can be done 1 day apart each week, or several days a part. The goal is to at least get all three workouts completed within a week's time each week.

DAY 1 - PUSH FOCUSED DAY

DECLINE DUMBBELL CHEST PRESS 6X12 REPS W/ 1 MINUTE OF REST IN BETWEEN SETS

Instructions: Start seated upright upright on a decline bench with a weight in each hand. Lean backwards as you shift the weight load up towards your chest. Keep the core and glutes tight as you exhale and drive the dumbbells over your chest while squeezing the shoulders and chest muscles.

VIDEO DEMONSTRATION

SINGLE ARM DUMBBELL BENCH PRESS 6X12 REPS W/ 45 SEC - 1 MIN OF REST IN BETWEEN SETS

Instructions: Start seated on a stable gym bench with your hands gripped around one dumbbell that is resting vertically on your lap. Keep both hands on the dumbbell handle as you lean back and lay on your back. As you lay back transition the dumbbell with you so that it is over your chest and carefully hand it off so that its only in one of your hands. Press your feet into the floor hard, keep your core and butt tight, and lower the dumbbell down toward the outside of your chest and then exhale hard and press it back up to the starting position.

VIDEO DEMONSTRATION

STANDING DUMBBELL OVERHEAD PRESS 6X12 REPS W/ 1 MINUTE OF REST IN BETWEEN SETS

Instructions: Start standing in an athletic stance with a dumbbell in each hand. Curl the dumbbells up to your shoulders and then press them overhead slightly converging at the top. Inhale, diverge the dumbbells slightly, and lower them down to just above the shoulders. NOTE: Keep your core braced HARD here as though you are anticipating a punch. Do NOT let the lower back arch during this movement!



STANDING DUMBBELL LATERAL RAISES IN SCAPULAR PLANE 6X10 REPS W/ 45 SEC – 1 MIN IN BETWEEN SETS

Instructions: Start standing in an athletic stance with a dumbbell in each hand. Keep the core braced, shoulders rolled back, and head on top of the spine (it's easy to let it slide forward which we are NOT doing here). Raise the arms out away from the body at a 45 degree angle, lower them back down to the hips, and repeat. Go light here are first. Although we are working in the scapular plane of motion (45 degrees away from the body) which tends to be easier on the shoulders, still go light.

VIDEO DEMONSTRATION

BETWEEN SETS

FARMER'S WALKS (SUPERSET) 6X30 SECONDS W/ 1 MIN REST IN

Instructions: Go heavy here. Start standing with two heavy dumbbells on the floor right by your feet. Squat down to pick up the dumbbells keeping your spine neutral and stand up with them. Maintain PERFECT posture (chest open and head on straight, not pushed forward) as you begin to walk while simply holding the dumbbells. This is an excellent exercise the will really tax your grip strength and shoulder girdle. NOTE: Remember, form over everything with this movement. If you can't have picture perfect posture while doing it then you are going a bit too heavy. Remember to keep those shoulder blades pinched together.



DAY 2 - PULL DAY

PULL UPS OR LAT PULL DOWNS 6X10 REPS W/ 1 MINUTE OF REST IN BETWEEN SETS

Instructions: Grab a bar overhead with a grip slightly wider than shoulder width. Keep your thumbs wrapped around the bar as you contract your lats and pull your breast bone to the bar. If you are not able to perform this for 10 repetitions then you may switch to performing lat pulldowns instead.

NOTE: If you can't do pull ups then do seated lat pull downs instead.

VIDEO DEMONSTRATION

SINGLE ARM CABLE ROW 6X12 REPS EACH SIDE W/ 45 SECONDS REST IN BETWEEN SETS

Instructions: Place a single handle attachment on a cable row machine. Hold the handle with one hand and place the opposing hand on the hip. Keep your core braced, chest upright, exhale and pull the handle into the side of the chest right under the nipple line. Do not twist your body, everything stays pointed forward. After twelve reps on one arm then you switch to the other arm.

VIDEO DEMONSTRATION

CABLE PULL DOWN (OPTIONAL, BUT HIGHLY RECOMMENDED) 6X12 REPS W/ 45 SECONDS OF REST IN BETWEEN SETS

Instructions: Place a bar handle attachment on a cable machine and set the pulley so that it's at about eye level when standing. Hold the bar with both hands as you get down on your knees. Keep your butt squeezed, core tight, and chest lifted as you exhale and pull the bar down to the front of the hips using your lats. Slowly raise the bar back up and repeat. NOTE: Don't allow your upper back to round forward during this movement. When you pull the bar down you should focus on lifting the chest even more to maintain proper posture.



TRADITIONAL BARBELL DEADLIFTS (OPTIONAL, BUT HIGHLY RECOMMENDED) 6X12 W/ 1 MINUTE OF REST IN BETWEEN SETS

Instructions: Start with a barbell on the ground. Your feet should be shoulder width apart with the toes pointed forward. Bend down to grab the bar, shoulder width, by hinging from both the knees and the hips while keeping your chest as upright as possible. Once you have a grip on the bar, sink your butt deeper, squeeze your abs, and exhale hard through pursed lips to stand up with the barbell squeezing your glutes at the top.

NOTE: A couple of things to keep in mind during deadlifts. One is you DO NOT ever want the back to round forward while doing these, always maintain an extended (arched) back. Keeping the bar very close to your body makes this easier to accomplish. It's not uncommon for the bar to rub against the shins on the way up and the way down.

VIDEO DEMONSTRATION

PRONE REAR DELTOID FLY 5X10 REPS W/ 45 SECONDS REST IN BETWEEN SETS

Instructions: Lay on your stomach on a bench that's on an incline with two light dumbbells in your hands. Bring your arms upwards while pinching the shoulder blades together. Make sure to keep your core braced and your spine neutral here.

NOTE: This is a great exercise for pulling the shoulders back and improving posture.

VIDEO DEMONSTRATION

WEIGHTED STABILITY BALL CRUNCH 5X15 REPS W/ 45 SECONDS REST IN BETWEEN SETS

Instructions: Hold a dumbbell with both hands underneath your chin as you set yourself up on a stability ball the same way you would without the weight, for this crunch exercise. The ball should be in between your pelvis and shoulders on your back. Keep the weight grasped with both hands and carefully allow your back to bend (extend) over the stability ball and then squeeze your core very hard and crunch up just beyond straight.

NOTE: This is a great way to progressively overload the abs.



DAY 3 - LEG DAY

BARBELL FRONT SQUATS 6X12 REPS W/ 1 MINUTE OF REST IN BETWEEN SETS

Instructructions: Start with a barbell in a power rack. You may use lifting straps to secure the bar across your arms in an X shape in order to hold the bar on the front of the shoulders. Get your body underneath the bar, and lift the bar off the rack keeping your elbows high. From here, it's squats as normal. Hinge from the hips and shove your butt back allowing your knees to bend naturally. Lower yourself down to about the height of a chair and then return back to the top of the movement squeezing your butt.

NOTE: These are much more challenging than the other squat variations that we've done so far in the program so go lighter here and grind out those reps with good form! I am grabbing the bar with an "X" pattern, you can also attach lifting straps onto the bar in order to hold it easier.

VIDEO DEMONSTRATION

SUMO DEADLIFTS 6X12 REPS W/ 1 MINUTE OF REST IN BETWEEN SETS

Instructions: Set up a barbell on the floor as though you were going to perform a traditional deadlift. This time however, take a stance that is wider than shoulder width and grab the bar with a grip that is more narrow than shoulder width. Drop your butt down, keep the chest up high, and keep the core braced as you exhale and stand up with the barbell. Really focus on squeezing the glutes hard at the top of this movement!



WRAPPING UP YOUR TRAINING PLAN

Remember, you want to do your best to get these 3 workouts in every week. This is a balanced plan which we designed focusing on compound movement to stimulate testosterone release.

If you get sick of doing these workouts just remember that it is not the workouts themselves that are beneficial, but the exercises that compose the workout.

If you want to do some other exercises just remember that they should be compound exercises (ones that work multiples muscles and joints at once). Once you understand that, the possibilities are endless.

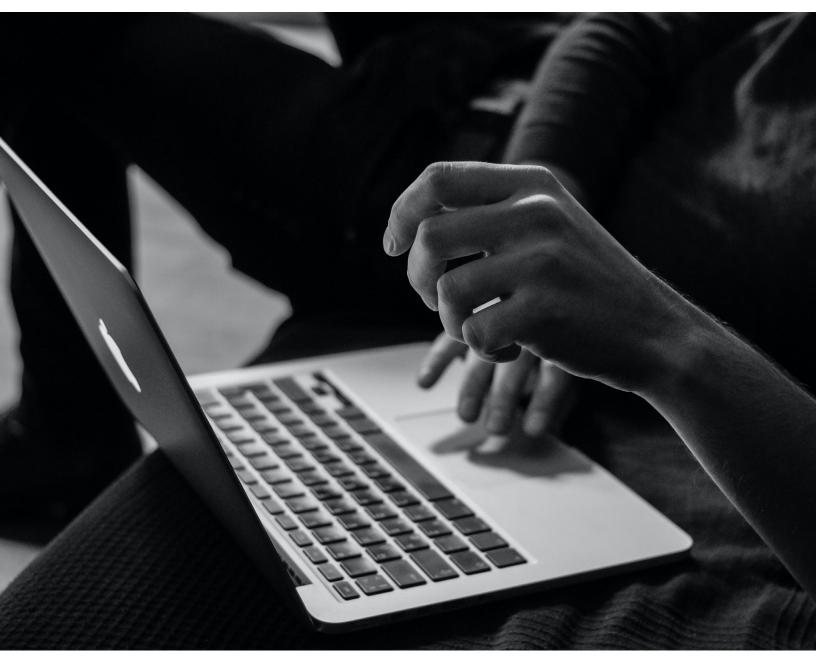
You could put together any type of programming you want. Just make sure it includes and even mix of:

- 1. Pushing/Pressing
- 2. Pulling
- 3. Squatting
- 4. Lunging
- 5. Hinging

If you want to get access to a full blow 3 month long workout program. Then check out Intelligent Strength Program here >>> https://guerrillazen.com/registration

https://guerrillazen.com/registration





TESTOSTERONE OPTIMIZATION CHEAT SHEETS

The following are summaries of many of the easiest and most effective things you can do and not do in order to give yourself the best chances of healthy, optimized, natural testosterone!

Print this off and pin it to your wall or fridge for a while to let the ideas sink in and become part of your routine.

Some of these appeared elsewhere in the guide and some are exclusive to this section.



DO!

- Get to sleep early (before 11pm).
- Sleep in a cool dark room.
- Consume oysters once per week.
- Turn your wifi off at night.
- Lift heavy with compound movements a few times per week.
- Shine red light on your body and testicles with a good device.
- Get regular full body sun exposure (do not get burned).
- Avoid processed foods and soy products.
- Avoid chemical estrogens in plastics and personal care products.
- Use glass, ceramic, and stainless steel cookware as much as possible and avoid non-stick teflon at all costs.
- Spend time in nature everyday and practice POWER poses when possible (arms behind the head, arms up in the air like you won the olympics, etc....
- Meditate and find ways to manage your stress.
- Spend time with friends and loved ones regularly.
- Avoid drinking hopped beers completely and limit drinks to 1-2/day MAX.
- Test your hormones and blood markers periodically to track progress and health status.
- Avoid addiction to tech and social media.



DO!

- Create a schedule for when you will workout, get nature time, socialize, mediate, shop, cook, clean etc. Order beats chaos!
- Support your liver with herbs, nutrients, and a healthy lifestyle.
- Address chronic tension in your body with massage, trigger pointing, stretching etc.
- Use a sauna 2-4 times per week to support stress reduction.
- Keep your phone away from your crotch and put it on airplane mode whenever possible.
- Practice gratitude and journal everyday.
- Eat adequate Zinc, Selenium, Protein, Cholesterol, and Dark colorful plant foods.
- Visualize yourself living your best life, feeling amazing, feeling strong, and with the kind of work, partner, friends, home etc that you truly desire in your heart of hearts.
- Consider wearing EMF blocking underwear such as LAMBS.
- Use supportive herbs to increase your natural vitality and masculine essence.
- Find a doctor/health care provider that can monitor and support your progress.



DONT!

- Use chemical personal care products (if you can't eat it don't put it on your skin).
- Sleep with wifi and lights on.
- Drink alcohol late at night or eat large meals right before bed.
- Force yourself to train hard if you need a rest day.
- Consume fast or processed cheap foods.
- Drink tap water or cheap bottled water get a filter or buy distilled or reverse osmosis and make sure to remineralize it with a pinch of celtic sea salt.
- Consume soy protein or products containing GMO or NON GMO Soy or Canola.
- Wear restrictive clothing and super tight clothing especially shorts and underwear.
- Let stress get you down (as you've learned, managing stress is super important).
- Watch TV or be on your phone/computer past 10 pm.
- Beat yourself up if you miss a day of training or have a cheat meal, just get back on track.
- Look for quick fixes or cheats to basic lifestyle issues.
- Rely on supplements or herbs to get the results you want, you have to train, eat and recover/sleep like a pro if you want to feel and look like one.
- Judge your success based on someone else's results "Comparison is the thief of joy."
- Think that looking good or that using performance enhancing drugs will magically solve your problems.
- Isolate yourself and live behind a screen 24/7.
- Settle for less than you are capable of in life, love, and business.
- Let your ego get the better of yourself and distract you from what's most important, namely your relationships, purposeful work, and a sense of joy, meaning, and fulfillment!





BRINGING IT ALL TOGETHER

We trust you've gotten a lot out of this guide and want to thank you for making it to the end.

Learning how to optimize your testosterone in a natural and sustainable way is a huge step for life long thriving! This is more of a "lifestyle" than a "quick fix" as you now know.

We want you to know that we believe in you and your ability to make profound positive changes in your health and life.

Start simple.

Begin with the meal plans and maybe 1-3 things from the lifestyle section.

After that you can start stacking more and more stuff from this guide (ie; the workouts, some supplements with doctor approval, etc...)

These are the simple everyday things that will help you reach your goals and sustain them.



ALSO, MAKE SURE YOU GO TO THE SUPPORT GROUP AND BECOME ACTIVE THERE.

The more we can share our successes and struggles with each other the more successful we will all become!

CLICK HERE TO JOIN THE SUPPORT GROUP

https://www.facebook.com/groups/793079051457729/

If you appreciated this guide

or have any questions or comments

let us know and we'll personally respond to you.

SIMPLY EMAIL BLAKE AT Blake@guerrillazen.com

UNTIL NEXT TIME.

Blake Bowman

Bryan Hardy





RESOURCES

FOR HERBS AND MUSHROOM EXTRACTS:

www.vitajing.com | www.lostempireherbs.com | www.potentiawellness.com

FOR RED LIGHT THERAPY DEVICES:

www.joovv.com

FOR BLUE LIGHT BLOCKING SOFTWARE:

https://iristech.co/ | https://justgetflux.com/

FOR BLUE LIGHT BLOCKING GLASSES:

Classic Swanwicks via Amazon