

#### **Presents**

# The Discover TRT Guidebook

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## GREETINGS

Greetings and thank you for downloading The Restore Clinic's Discover TRT eBook. This is Justin Groce, the founder of The Restore Clinic, and I want to personally say "thank you" and commend you for exploring the topic of testosterone replacement therapy (TRT).

The pursuit of excellence is the process of immersing oneself in a series of increasingly difficult subsequent events.

I say this as TRT can be one of the most rewarding journeys that one can pursue, but the road that leads you here has oftentimes been an arduous one.

The man who begins to explore TRT has usually been down a difficult path. One that's usually been present for months and sometimes years.

Testosterone replacement therapy has the potential to possibly change the trajectory of one's life, especially when implemented for the person who needs it. We've personally witnessed some men transition from being a mere shell of themselves to becoming the man that their family needed him to be. I hope this document helps answer some of your questions and provides you with insight into some of the expectations of TRT.

#### Item 1: What is TRT?

Testosterone replacement therapy (TRT) is the medical replacement of a clinical deficiency and its associated symptoms that occur in the context of this clinical deficiency. In this case, the deficiency we are referring to is testosterone.

The goal of TRT is to not only provide therapeutic replacement of the deficiency, but to also provide symptomatic resolution that is secondary to the deficiency. Some literature defines symptomatic resolution as an improvement in 80% of the symptoms associated with the hormonal deficiency.

We've seen other literature that suggests a 70% improvement in symptoms is considered a positive clinical response.

On the other hand, the goal of TRT is NOT to provide excessively high doses of testosterone for the goal of performance enhancement, bodybuilding, or purely for "making gains." This is considered a nonmedical intervention whereas TRT is a medical intervention with the purpose of improving one's quality of life (QOL).

## Item 2: What are the symptoms of hypogonadism (low testosterone)?

Hypogonadism, AKA low testosterone, is a medical condition in which your body doesn't produce enough testosterone and therefore results in symptoms associated with this hormonal deficiency.

There can be numerous reasons why you aren't producing enough testosterone. Some of these include:

- Genetics
- Aging (yep, simply getting older lowers testosterone)

- Testicular failure or testicular iniuru
- Failure of the brain to communicate with the testicles
- Endocrine disrupting chemicals (EDCs)
- · Previous anabolic steroid use
- Due to another medical condition (example: thyroid disease, kidney disease, sleep apnea, insulin resistance/diabetes, etc)
- Secondary to medications
- Any combination of the aforementioned
- Or any other etiology not mentioned
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The usual culprits that we see are aging-related declines in testosterone production or loss of production due to a combination of contributors

Other clinicians may report different underlying causes for why their patients have low testosterone however we rarely see a single, direct cause in many of our patients.

Regardless of the cause of one's low testosterone levels, many patients report many of the same symptoms. Here's a list of the most common symptoms that we see in clinical practice:

- Irritability
- Depression and/or anxiety
- · Brain fog/difficulty concentrating
- Forgetfulness
- Fatigue
- Slow recovery, especially from physical labor and/or working out
- Joint pain, which seems to be out of proportion to the patient's age and/or level of physical activity
- Lowered libido (sex drive)
- Rarely waking up with erections
- Difficulty getting erections, keeping erections, and/or difficulty achieving orgasm
- Reduction in ambition, drive, or desire to be a high-performance man

This isn't the entire list of symptoms of low testosterone; these are simply the most common ones our patients report. Low testosterone can also cause symptoms that you don't "feel" per se.

#### These include:

- · Loss of bone density
- Insulin resistance (yikes!)
- Change in body composition
- Increased risk of cardiovascular disease
- Loss of lean body mass/loss of muscle tissue
- Reduced strength
- Worsened cardiovascular health and performance (depending how much training you do, you might actually "feel" this one)

Will you experience any of these symptoms? Maybe. Maybe not.

You might experience some of them, all of them, or maybe none of them. Hopefully, none of them, which would mean that you're probably doing good.

#### Item 3: What should my testosterone level be?

This is a good question and one we get all the time. However, the answer tends to surprise most people.

To be honest – there isn't an ideal level where yours should be. Everyone feels different at various testosterone levels

Some people come to us and their testosterone is 250 however they feel fine. They have no complaints, and they deny having any symptoms. Great! This person sounds like they don't need TRT at this time.

However, we've had people come to us with a testosterone level of 500 and they complain of every symptom in the book. Uh oh! This person *might* benefit from TRT.

Another thing to think about are the lab ranges. Some lab ranges go from 250 to 1100 and some go from 400 to 700. Each lab company has their own established range for testosterone levels.

Even if you fall within the lab range as "normal" you still may have complaints of symptoms associated with testosterone deficiencies. That's because there isn't an established consensus on where someone should be. Each person is so different. Ultimately the goal is to improve the patient's QOL as well as improve their symptoms.

#### Common statements we hear from patient consultations



"I'm so tired I'd rather sleep than have sex"



"I feel more anxious/depressed than ever; I've never dealt with this before"



"I can't handle stress like I used to"



"I'm easily irritated, which is completely unlike me"



"My erection quality isn't as good as it used to be"



"My sleep quality isn't as good as it used to be" and/or "I rarely wake up with erections anymore"



"My muscles stay sore longer from exercise than they used to"

#### Item 4: What are the side effects of TRT?

When implemented at medically therapeutic levels we rarely see side effects. No lie!

That's because the goal is to replace a clinical deficiency. People who complain of things like "roid rage" are referring to people who abuse excessive doses of anabolic substances, which is NOT considered TRT.

However, side effects can occur. The most common ones we see are acne and water retention, but again, we rarely actually have patients report these.

If acne and/or water retention were to occur it usually happens within the first 1–3(ish) months of starting TRT. This is because your body is adapting to being at a higher level and may need a transition period to get used to being at a higher level. We do our best to prevent side effects from occurring by providing patients with therapeutic doses and NOT abusive doses along with careful titration, which takes place over time.

Another side effect, albeit uncommon, is gynecomastia. This occurs if patients have a genetic predisposition to the development of gynecomastia. Gynecomastia is characterized by having fibrous tissue developing around the nipple. This could occur in one or both sides.

People used to think that this was caused by estrogen, but literature in the last 10–15 years has disproven that. Per the literature it appears that this is caused by **several** hormones coming in conjunction with being genetically predisposed to developing gynecomastia. Again, this is another side effect we rarely get reports of. Either you have the genetics for it, or you don't.

Of all possible side effects, the most concerning one is fertility. Yes, testosterone can possibly lower one's sperm count. Does this mean it will? Not necessarily, but it's a possibility.

If you are no longer pursuing children or have had a vasectomy, then this most likely doesn't concern you. However, if you're a young man who wants to possibly pursue children, then this is something you must be aware of.

For young men are concerned about fertility we recommend getting a semen analysis prior to considering TRT. This way you will know if you are even fertile in the first place. If your semen analysis reveals a robust amount of healthy sperm, but you still want to pursue TRT, then it would be advisable to preserve your sperm. Typically, it's only a couple hundred dollars per year to cryopreserve semen.

If you do ultimately decide to pursue TRT, there are still some add-on options to help possibly preserve sperm counts while on TRT. Most people add human chorionic gonadotropin (HCG) and/or follicle stimulating hormone (FSH) on top of their TRT program to help improve, or even maintain, their sperm count. Although these do work quite well for most men, they aren't a guarantee to ensure a robust sperm count. Again, these are things a young man would need to take into consideration.

The last side effect we will discuss are injection site reactions. Sometimes the site of injection may experience some irritation after injecting the medication. This isn't considered an allergic reaction, but merely a local irritation.

If someone decides to inject testosterone subcutaneously sometimes the site of injection may experience a small nodule. While this nodule may be somewhat annoying, we reiterate that it is simply benign. Usually massaging the nodule with a warm, moist compress will help improve it. Even without intervention it typically self-resolves within a few days.

Other possible side effects include increased production of red blood cells (secondary erythrocytosis), testicular atrophy (balls might shrink), as well as insomnia and/or anxiety, which is usually a tell-tell sign that your dose is too high.

#### Item 5: How is TRT administered?

There are several ways that testosterone can be introduced to the body. Some of these include pellets, oral medications, injectables, and transdermals. At some point we've used every possible method that's available.

We've treated over a thousand men and we've found that injectables and transdermals provide the best and most consistent results. Both methods provide stable blood levels of testosterone as well as have the least likelihood of the patient experiencing side effects.

Injectables can be administered into either the muscle (intramuscular injection) or administered into the body fat (subcutaneous method). Studies have shown that both methods provide similar efficacy in both blood levels of testosterone and symptomatic improvement. The decision to perform either intramuscular injections or subcutaneous injections is based on patient preference.

If someone doesn't want to do injections, then transdermal testosterone works equally effectively.

But guess what?

The ideal place to apply the testosterone transdermal is to the testicles. Yep! You heard right. Apply the transdermal to the testicles. This provides the most robust absorption and blood-dose response to the therapy.

The main thing to consider with the transdermal testosterone is to be aware of possible transference. This means that after applying it you want to thoroughly wash your hands to avoid spreading it to children, pets, and other people. Also, after applying it avoid sexual activity for at least four hours. Alternatively, you could simply wash the affected area.

# Item 6: How often do I need to take testosterone? What is a good starting dose?

The patient's starting dose and frequency of administration depends on several factors. Some of these include the patient's blood levels of testosterone, their sex hormone binding globulin (SHBG) levels, their preference, compliance, what fits into their lifestyle, and how they respond to treatment.

When getting started on injections it's pretty common to inject around twice per week. Heck, we have some who do it once daily and others may do it every other day. If using the cream, it's pretty common to apply it to the testicles one to two times per day, with twice daily being ideal.

The starting dosage will depend on the extent of your symptoms as well as your pre-TRT testosterone levels. Some people may start anywhere from 100mg to 150mg weekly on injections and anywhere from 75mg to 150mg daily when on the transdermal.

#### Item 7: When can I expect to start feeling the effects of TRT?

Testosterone replacement therapy doesn't work overnight so if you're expecting to feel like a new man two weeks into therapy...think again. Most of our patients report they start noticing even some degree of feeling something usually around 5-6(ish) weeks.

We've had some patients report feeling some symptomatic improvement as early as four weeks and some patients took upwards of three months. Unfortunately, we can't predict how long it will take for someone to respond to TRT. Each person is different and therefore responds differently.

There are even studies out there reporting that, for most people, benefits start around the 3-4 month mark and continue to provide benefits even at the 3 year mark, such as the continued reinforcement of bone density and improve in insulin sensitivity.

Also, what you notice differs from person-to-person. Some patients report less brain fog, improved mood, better sleep, etc as their first improvement, meanwhile other patients have reported more frequent morning erections or better libido as their first improvement.

Everyone is so different! There's no telling as to what you will notice first. We always tell our patients to just enjoy the journey and just follow the process. If you focus too much on TRYING to notice \*something,\* then you might overlook the benefits that are actually happening.

### Item 8: When should I have follow-up bloodwork?

After getting started with TRT it's usually good practice to have bloodwork done roughly 8-12 weeks later. You want to have a large enough sample size of both time and life experience to draw conclusions from. Having as much "lived data" helps us tease in and tease out whether or not you're truly noticing benefits of TRT or if it's something unrelated.

Many people want to get bloodwork as early as 4 to 6 weeks after starting TRT. This is way too early. Chances are you won't even start to notice any benefit this early on, so why get labs this early? If adjustments are made way too early sometimes it can cause more problems than solutions.

OK – so it's 8-12 weeks after you started TRT and now you're getting labs. What's next? Well, this depends on how you've responded to TRT so far. Perhaps you're noticing positive benefits or you might not even notice anything at all just yet.

Depending on how the bloodwork looks along with how you're responding will dictate whether or not to adjust the frequency, adjust the dosage, or make no changes and continue on the current course.

Anytime dosage adjustments are made it's common to expect another follow-up appointment (along with bloodwork) roughly 3 to 4 months later.

Now, if you're "dialed in" and stable on a dose and doing well with no complaints or problems, then two appointments per year is all that's needed. Since testosterone is a controlled substance patients will need minimally an appointment twice yearly to maintain DEA compliance.

# Item 9: What's the best piece of advice for someone who is starting TRT?

Well, there's two pieces of advice we'd like to give. First, BE PATIENT. Be. Veru. Patient.

Oftentimes it takes years for someone's testosterone to decline and manifest into symptoms. Therefore, it takes time to reverse the detrimental effects of having low testosterone.

This stuff doesn't work overnight. It's no different than someone attempting weight loss. It usually takes months and years for people to gain weight and thus it will take time to lose that weight.

Testosterone replacement is no different. You must be patient. However, if you are patient and simply follow the process, then in due time you will be rewarded. The vast majority of our patients report that they feel a complete 180 at usually the 6(ish) month mark. Some get there earlier and some take longer.

Getting to the "dialed in" phase is also usually dependent on other factors as well. You MUST make an effort to improve your health. This is an absolute must.

If you think simply injecting testosterone is going to do all the work for you, then you've been misinformed.

What testosterone does is provide the foundation for you to achieve the optimal version of yourself. But it's up to you to chart that journey. Please remember this phrase "meet the testosterone halfway." This means work WITH the testosterone...and not expect the testosterone to work for you.

Second, more is not better. You read that correctly. More testosterone is NOT better. People often think, "well if I feel really good at (insert any dosage), then I'll definitely feel even better at a higher dosage."

There IS such thing as being too high. Remember, this is a medical intervention for treating a clinical deficiency. We aren't trying to achieve as high of levels as possible. That's called substance abuse and is NOT considered TRT.

If you're dose is too high you may experience insomnia, anxiety, irritability, feeling "keyed up," or heck, you may feel like it's no longer working anymore.

Other people have reported they lost their libido or started having increased blood pressures when their dosage was too high. That's why we stress the importance of finding the dose that's right for YOU. Again, be patient, follow the plan of care, enjoy the process, and live the best life possible.

Ok! Sounds great! So now what? If you want to continue having dialogue with us, click here.

Alternatively, if you don't want an appointment, but are still interested in simply getting some bloodwork done to see where your levels are, then click here. Use promo code "restore10" for 10% off any order over \$100.

Thanks again so much for downloading our eBook. We appreciate you taking the time to read it and we hope it provides some insight into TRT. If you have any questions, hit us up right here.

P.S. Scan this QR code and follow us on our socials!

