

**GAME-CHANGING TESTOSTERONE REPLACEMENT HAS ARRIVED...
NO NEEDLES!**

*Your Weekly Newsletter
by Dr. Nick Sieveking
July 16, 2026*



Thank you for reading this week's newsletter. It may be the most important one we've ever published.

Today I'm going to introduce what I believe is one of the most significant advances in testosterone replacement therapy in decades.

But before we discuss this breakthrough, it's important to understand **why restoring normal testosterone levels matters so much.**

Few prescription therapies have the potential to influence as many organ systems as hormone optimization.

Over the past several years, GLP-1 medications—including semaglutide, tirzepatide, and now retatrutide—have transformed medicine. Originally developed to treat diabetes and obesity, they are now recognized for benefits extending well beyond weight loss, including improvements in cardiovascular disease, kidney disease, metabolic health, inflammation, and longevity.

Yet testosterone replacement, when prescribed appropriately for men and women with **true testosterone deficiency**, may ultimately prove to be just as important—perhaps even more so.

Testosterone is far more than a “sex hormone.”

It influences nearly every major organ system, including muscle, bone, brain, metabolism, blood vessels, sexual function, and overall vitality. Maintaining youthful, physiologic testosterone levels may be one of the most powerful tools we have to promote healthy aging, preserve independence, and improve quality of life.

In many ways, testosterone may be one of the most important molecules in the human body.

Benefits of Testosterone Replacement

When prescribed for true testosterone deficiency

Physical Health

- Increased lean muscle mass
- Increased strength and physical performance
- Reduced visceral body fat
- Increased bone density
- Lower risk of osteoporosis and fractures
- Improved exercise recovery
- Increased energy and reduced fatigue

Sexual Health

Men

- Improved libido
- Improved erectile function
- Better orgasm and sexual satisfaction

Women

- Increased libido
- Improved arousal and lubrication
- Greater sexual satisfaction

Mental & Cognitive Health

- Improved mood
- Improved motivation and drive
- Better concentration and mental clarity
- Reduced brain fog
- Increased confidence
- Improved sense of well-being
- Emerging evidence for protection against age-related cognitive decline

Metabolic Health

- Improved insulin sensitivity
- Better glucose metabolism
- Reduced waist circumference
- Improvement in metabolic syndrome
- Increased hemoglobin in appropriately selected patients with anemia

Cardiovascular Health

- Improved endothelial (blood vessel) function
- Better exercise tolerance
- Reduced systemic inflammation

- Improved symptoms in selected patients with heart failure
- Improvement in multiple cardiovascular risk factors
- No increase in major adverse cardiovascular events when appropriately prescribed for testosterone-deficient men

Neuroprotection

Emerging research suggests testosterone may:

- Reduce neuroinflammation
- Support neuronal function
- Preserve memory and executive function
- Reduce amyloid- β and tau accumulation in laboratory models
- Potentially lower the risk of neurodegenerative diseases such as Alzheimer's disease

Quality of Life

- Greater vitality
- Increased productivity
- Improved participation in work, exercise, and family life
- Better overall quality of life

Low Testosterone Is More Than a Symptom...

It may shorten your life.

Low testosterone is not simply associated with fatigue, weight gain, loss of muscle, or reduced libido.

Multiple large population studies have demonstrated that individuals with lower endogenous testosterone levels have a significantly higher risk of death from all causes.

Perhaps the simplest way to summarize the evidence is this:

Living with untreated testosterone deficiency is associated with a shorter lifespan.

Among the landmark studies:

- **EPIC-Norfolk Prospective Population Study (2007)** demonstrated that lower testosterone levels were associated with increased all-cause and cardiovascular mortality.
- **European Heart Journal (2010)** similarly found that men with lower testosterone had significantly greater risk of death than men with normal levels.

An Important FDA Update

One of the biggest misconceptions surrounding testosterone therapy has finally been addressed.

After reviewing modern safety data—including the landmark TRAVERSE Trial—the FDA removed the boxed warning suggesting testosterone therapy increased cardiovascular risk.

Today, the evidence shows that when testosterone is prescribed appropriately for men with true testosterone deficiency and properly monitored, it **does not increase the risk of heart attack, stroke, or prostate cancer.**

That represents one of the most important changes in hormone medicine in decades.

Why Has Testosterone Therapy Gotten Such a Bad Reputation?

Much of the stigma dates back to **1990**, when Congress passed the **Anabolic Steroids Control Act**, placing testosterone into Schedule III of the Controlled Substances Act.

The law was primarily intended to curb the abuse of anabolic steroids in competitive sports—not to regulate legitimate hormone replacement therapy.

Ironically, the legislation was opposed by the FDA, the DEA, and the American Medical Association.

Unfortunately, the unintended consequence was profound.

For decades, medically supervised testosterone replacement became associated in the public's mind with illicit bodybuilding drugs, while countless men and women who could have benefited from treatment remained untreated.

Meanwhile, underground synthetic anabolic steroids continued to flourish without medical supervision.

It is worth remembering that no other naturally occurring replacement hormone in the United States is classified as a controlled substance, including:

- Insulin
- Estrogen
- Progesterone
- Thyroid hormone
- Vitamin D
- Human chorionic gonadotropin (hCG)

Testosterone Levels Are Falling...

And aging isn't the only reason.

Yes, testosterone naturally declines with age as the hypothalamic-pituitary-gonadal axis becomes less efficient.

But aging tells only part of the story.

Modern lifestyles—including obesity, chronic inflammation, environmental endocrine disruptors, poor nutrition, sleep deprivation, and physical inactivity—have accelerated that decline dramatically.

Consider this remarkable statistic:

A healthy 50-year-old man today has approximately 50% lower testosterone than a healthy 50-year-old man did fifty years ago.

This isn't simply aging.

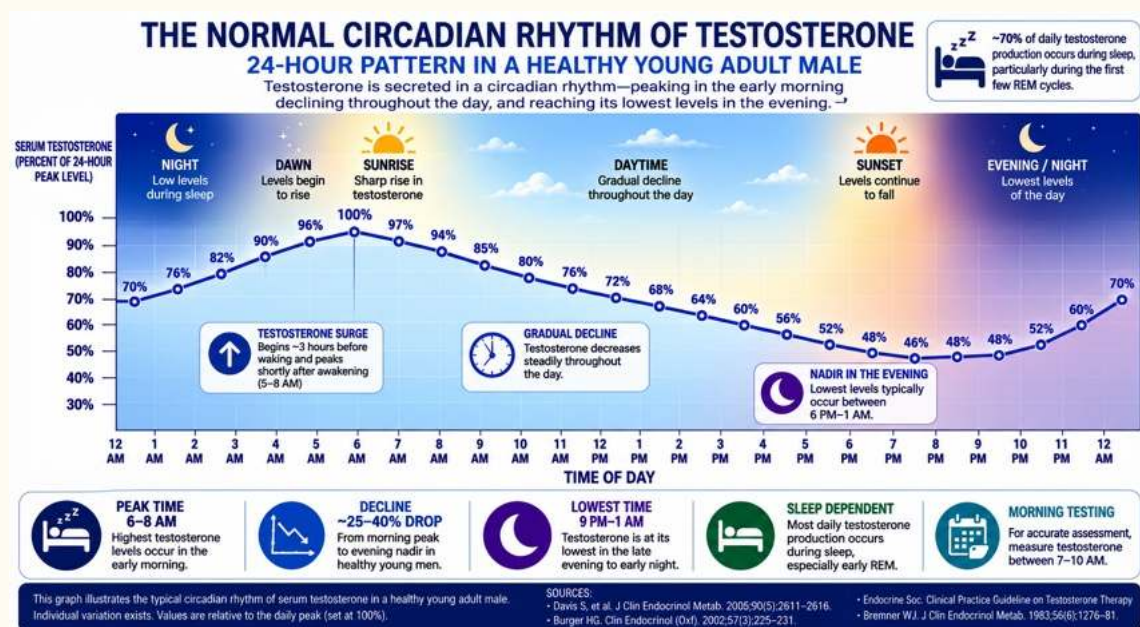
Something has fundamentally changed.

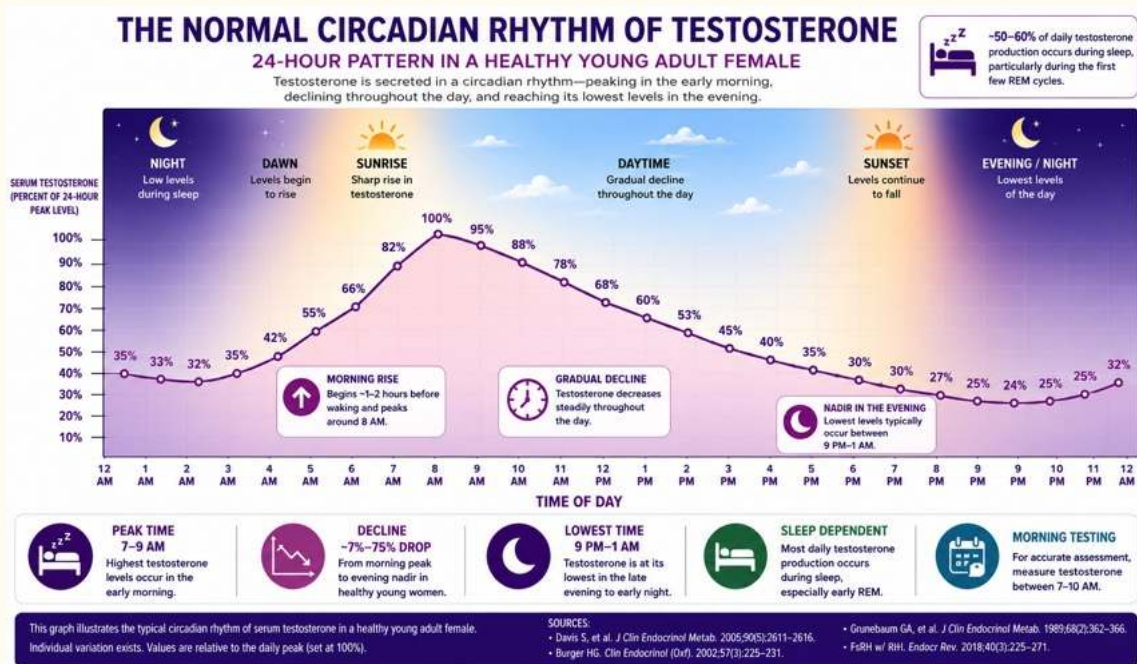
What are considered **“Normal Levels”** today:

Female—Total testosterone: about 15–46 ng/dL
—Free testosterone about 1.2–6.4 pg/mL

Male —Total testosterone: about 250–900 ng/dL
—Free testosterone about 5–25 ng/dL

What should daily testosterone production in men and women of all ages look like?





So That Brings Us To the Big Question...

How do we replace testosterone in a way that most closely mimics how the body was designed to produce it?

For decades, physicians have searched for the ideal testosterone replacement therapy—one that restores testosterone naturally, safely, consistently, and conveniently.

In an ideal world, testosterone replacement would:

Mimic Normal Human Physiology

- Follow the body's natural circadian rhythm of testosterone secretion
- Deliver physiologic—not supraphysiologic—testosterone levels
- Increase free testosterone (the biologically active hormone)
- Improve free testosterone without requiring excessively high total testosterone levels
- Lower sex hormone-binding globulin (SHBG), allowing more testosterone to remain biologically available

Maximize Safety

- Avoid increasing blood pressure
- Minimize or eliminate erythrocytosis (elevated red blood cell count)
- Avoid increasing the risk of blood clots or stroke
- Avoid liver toxicity and other hepatic complications
- Minimize testicular atrophy
- Preserve fertility as much as possible

Be Easy to Live With

- No needles

- No surgical pellet implantation
- No messy gels that can transfer to spouses or children
- No restrictions on showering, swimming, exercising, or sweating
- A simple daily routine that patients will actually follow
- Stable testosterone levels throughout the day, avoiding the dramatic peaks and crashes seen with many current therapies

For years, achieving all of these goals at the same time simply wasn't possible.

Until Now!

I believe the next generation of testosterone replacement has finally arrived. It provides a truly physiologic approach that addresses many of the shortcomings of traditional injections, pellets, patches, and gels—without the need for needles.

KYZATREX: ORAL TESTOSTERONE THAT MAKES THE DIFFERENCE

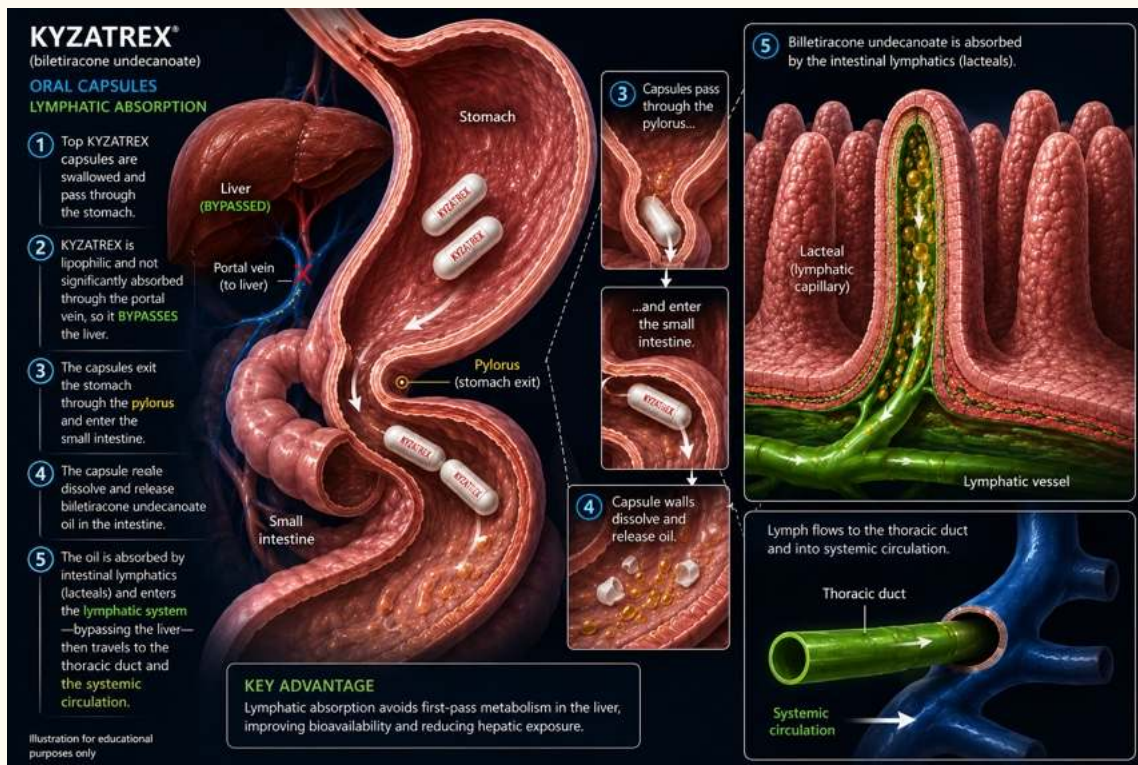


Unique Lymphatic Absorption

Unlike older oral testosterone products, KYZATREX:

- Is released in the **small intestine**, not the stomach.
- Is absorbed through the intestinal lymphatic system (lacteals).
- Bypasses first-pass metabolism in the liver.
- Minimizes hepatic exposure.
- Has **no evidence of hepatotoxicity** in clinical studies.

This unique delivery system allows testosterone to enter the bloodstream much more like naturally produced testosterone.



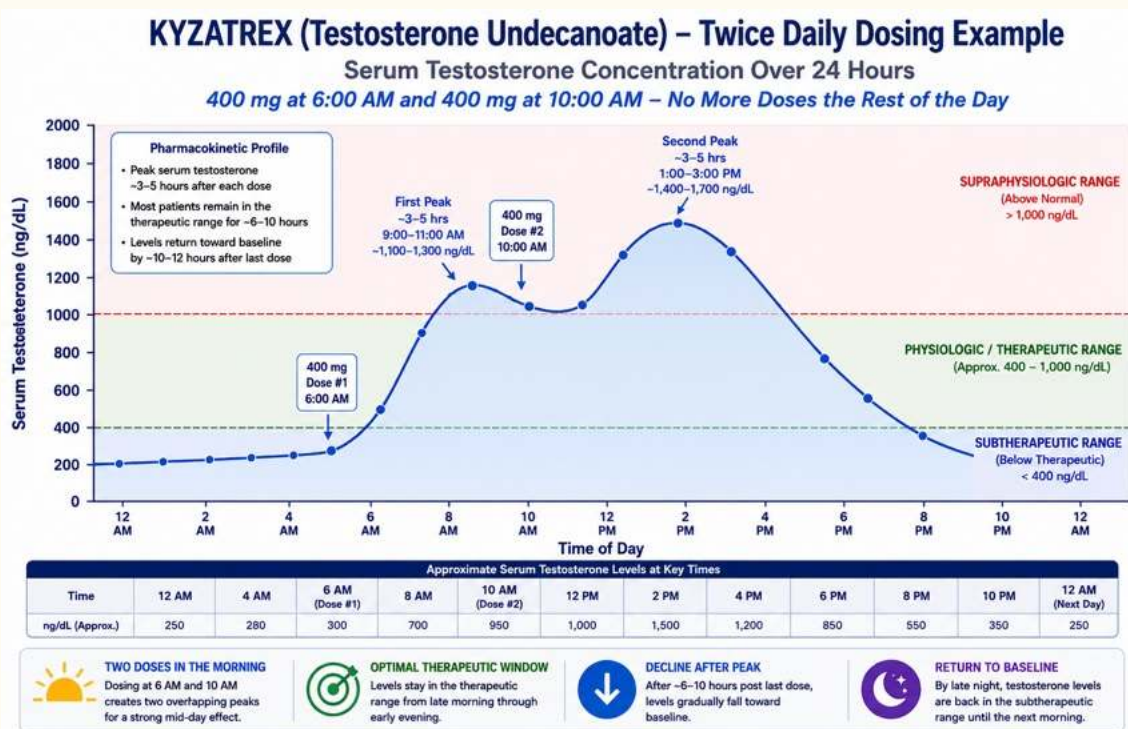
Mimics Natural Testosterone Physiology

One of the greatest limitations of injections, pellets, and many topical products is that they often produce testosterone levels that remain elevated around the clock.

Healthy men don't produce testosterone that way.

Instead, testosterone rises in the morning, remains elevated during the day, and gradually declines toward evening before reaching its lowest levels overnight.

KYZATREX more closely reproduces this normal circadian rhythm.



- Morning rise in testosterone
- Therapeutic daytime levels
- Gradual evening decline
- Overnight return toward baseline

This physiologic pattern may help explain why many patients experience **steady energy, improved mood, enhanced cognition, and fewer “highs and lows”** compared with longer-acting testosterone preparations.

Optimizes the Active Hormone

Remember...

Free testosterone is the biologically active form of testosterone.

KYZATREX has been shown to:

- Lower sex hormone-binding globulin (SHBG)
- Increase free (bioavailable) testosterone
- Achieve excellent symptom relief without requiring extremely high total testosterone concentrations

In practical terms, many patients experience significant improvements in:

- Energy
- Libido
- Body composition
- Mental clarity
- Mood
- Exercise recovery

...while maintaining total testosterone levels that remain closer to the physiologic range.

Potential Safety Advantages

Because KYZATREX generally avoids sustained supraphysiologic testosterone concentrations, it may reduce many of the unwanted effects associated with traditional testosterone replacement.

Potential advantages include:

Lower DHT Exposure

- Less elevation of dihydrotestosterone (DHT)
- Potentially lower risk of androgenic hair loss
- Less stimulation of benign prostate enlargement

- Lower incidence of acne
- Fewer mood fluctuations

Advantages for Women

The ability to increase free testosterone while avoiding excessively high total testosterone may reduce androgenic side effects, including:

- Unwanted facial or body hair growth
- Deepening of the voice
- Menstrual irregularities

Cardiovascular and Hematologic Safety

Clinical studies have demonstrated favorable safety findings.

Compared with injectable testosterone:

- Average increase in blood pressure of only **approximately 1.7 mmHg**
- Fewer than **2%** of patients developed hypertension
- Less than **2%** developed erythrocytosis (elevated hematocrit), compared with rates that may exceed **20–40%** with injectable testosterone and are reported even higher in some series of long-acting injectable preparations.

For many patients, this represents one of the most important safety advantages of oral testosterone therapy.

Preserves the Body's Own Testosterone Production

Unlike long-acting injectable preparations that can markedly suppress the hypothalamic-pituitary-gonadal axis, KYZATREX appears to produce:

- Less suppression of endogenous testosterone production
- Less testicular atrophy
- Greater preservation of fertility potential

Although all testosterone therapies suppress natural production to some degree, the shorter physiologic exposure produced by KYZATREX may allow for less complete suppression than longer-acting formulations.

Bottom Line

KYZATREX was designed to solve many of the limitations that have challenged testosterone replacement therapy for decades.

It offers a therapy that is:

- ✓ Needle-free
- ✓ Physiologic
- ✓ Liver-safe
- ✓ Lymphatically absorbed
- ✓ Circadian in its testosterone profile
- ✓ Effective at raising free testosterone

- ✓ Associated with low rates of erythrocytosis
- ✓ Simple to take
- ✓ Easy to incorporate into daily life

How Do Other Testosterone Delivery Methods Compare?

1. Topical Gels & Creams

Transdermal testosterone is one of the most physiologic methods of replacement because it produces relatively stable blood levels and avoids first-pass metabolism through the liver.

Advantages

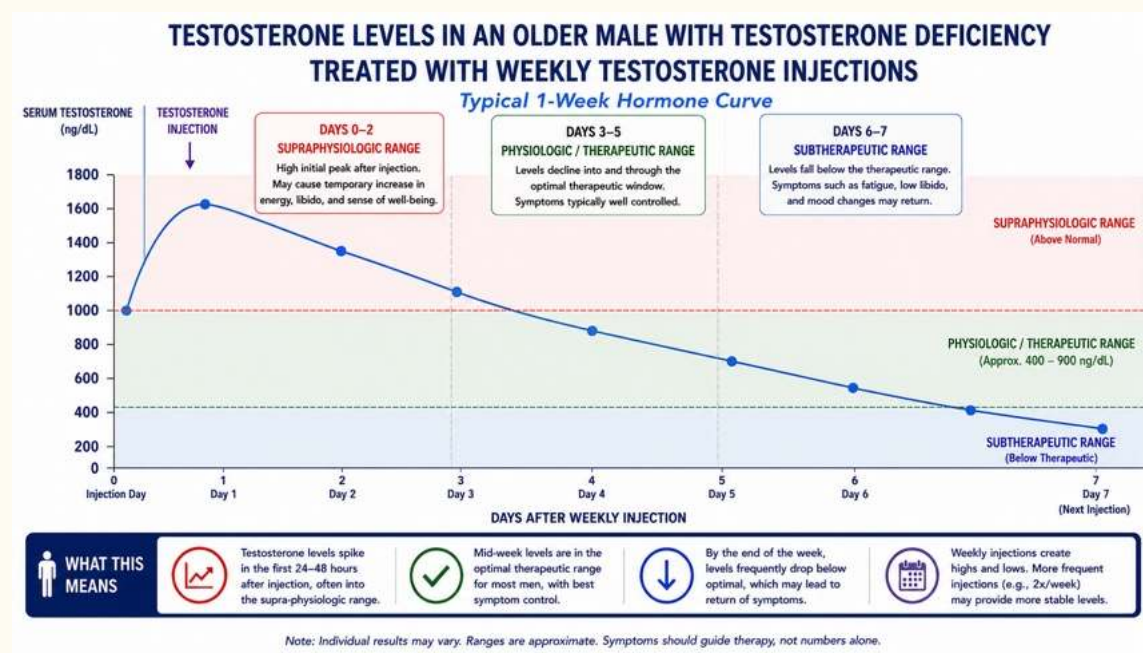
- Physiologic hormone levels
- Easy dose adjustment
- Needle-free
- Avoids first-pass liver metabolism
- Lower peak testosterone concentrations

Disadvantages

- Variable skin absorption
- Risk of transferring testosterone to others
- Messy daily application
- Showering and swimming restrictions
- Reduced effectiveness with excessive sweating
- Skin irritation
- Inconsistent symptom relief in some patients

2. Intramuscular (IM) Injections

IM injections are reliable and inexpensive but create one of the least physiologic hormone profiles.



Advantages

- Reliable absorption
- Cost-effective
- Flexible dosing
- Less frequent administration
- No transfer risk
- Excellent symptom relief for many patients

Disadvantages

- Significant peaks and valleys in testosterone levels
- Supraphysiologic levels shortly after injection followed by suboptimal levels before the next dose
- Needle injections
- Higher risk of erythrocytosis (elevated hematocrit)
- Greater aromatization to estradiol
- Increased suppression of LH and FSH
- Testicular atrophy
- Significant reduction in fertility while on therapy

3. Subcutaneous (SQ) Injections

Subcutaneous injections share nearly all of the same advantages and disadvantages as IM injections. Some patients find SQ injections less painful, but hormone fluctuations and pituitary suppression remain similar.

4. ODTs & Troches

(Compounded formulations absorbed through the oral mucosa)

These preparations are designed to be absorbed through the lining of the mouth rather than swallowed.

Advantages

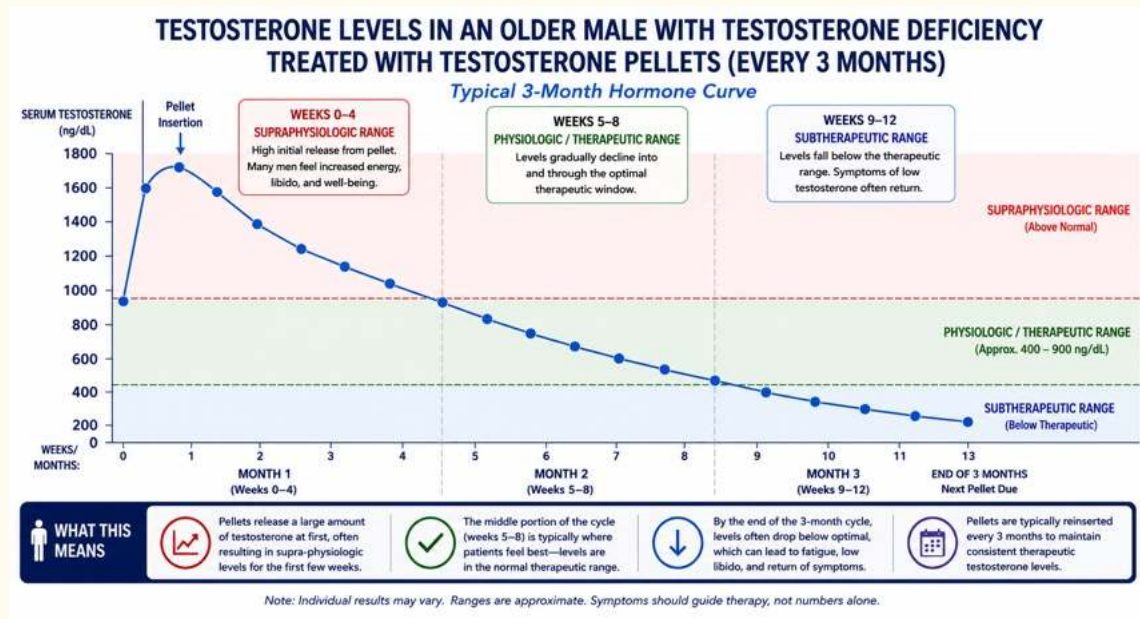
- Needle-free
- Mostly bypass first-pass liver metabolism
- Rapid absorption
- Easy dose adjustment
- No skin transfer
- No injection discomfort

Disadvantages

- Highly variable absorption
- Short duration of action
- Swallowed testosterone is poorly absorbed
- Compounded formulations may have inconsistent potency and quality
- Taste and mouth irritation
- Higher cost

5. Testosterone Pellets

Pellets provide one of the longest-lasting forms of testosterone therapy but are also among the least physiologic delivery systems.



Advantages

- Long duration (3–6 months)
- Excellent patient compliance
- No weekly injections
- No skin transfer
- Avoids first-pass liver metabolism

Disadvantages

- Very difficult to adjust the dose once implanted
- Least physiologic hormone profile:
 - Supraphysiologic testosterone during the first month
 - Therapeutic levels during the second month
 - Declining to suboptimal levels by the third month
- Requires a minor surgical procedure every few months
- Risk of infection, pellet extrusion, scar tissue, and skin dimpling
- Repeated office procedures
- Higher upfront cost
- Suppression of fertility
- Increased risk of elevated hematocrit, sometimes requiring therapeutic phlebotomy

Why Physiologic Testosterone Matters

The goal of testosterone replacement is **not simply to achieve a normal laboratory value—it is to recreate normal human physiology.**

Healthy men and women naturally produce testosterone every day. Levels rise in the morning, gradually decline throughout the day, and repeat this rhythm the

next morning. That daily pattern contributes to energy, mental clarity, physical performance, recovery, libido, and overall well-being.

KYZATREX is the first oral testosterone therapy that closely mimics this normal daily rhythm without needles and without exposing the liver to toxic testosterone metabolism.

A Simple Analogy

Dr. Robert Lufkin uses an analogy I really like:

Would you rather have one cup of coffee every morning... or drink seven cups all at once on Monday and then go without caffeine for the rest of the week?

Most people would choose the steady morning cup.

The same principle applies to testosterone.

Large weekly injections often produce **very high highs followed by very low lows**, while physiologic daily replacement provides a smoother, more natural hormonal rhythm.

The body was designed for consistency—not hormonal roller coasters.

SPECIAL PROMO:

**--Visit Ageless Solutions for a FREE
Testosterone Level Test--**

Offer expires 7/31/26.

Call to Schedule!



STAY TUNED!

Be on the lookout for next week's newsletter, *"Back to the Basics: What is Functional Medicine? Real Patient Stories That Explain Everything."*

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