NOVEMBER 8-9, 2025

VIRTUAL

MEN'S PELVIC HEALTH SUMMIT

CLINICAL SUMMARY

THE LOWDOWN ON LOW T: DIAGNOSING AND TREATING HYPOGONADISM

PRESENTED BY DR. JUSTIN DUBIN, MD

DAY 1 • SESSION 2 • 11:00 AM - 11:30 AM

CLINICAL SUMMARY

Overview

Dr. Justin Dubin is a Urologist and Men's Health Specialist.

Key Clinical Themes

Testosterone Physiology

Testosterone production follows the hypothalamic-pituitary-gonadal (HPG) axis. Gonadotropin-releasing hormone (GnRH) stimulates LH and FSH release from the pituitary. LH acts on Leydig cells to produce testosterone; FSH supports spermatogenesis via Sertoli cells. Exogenous testosterone suppresses this loop via negative feedback.

Clinicians must understand that testosterone levels fluctuate not only with time of day (highest in the morning) but also with lifestyle factors. There has historically been a notion of "andropause," likened to menopause in women, a natural, inevitable testosterone decline with age. However, current evidence suggests that this concept is misleading. Testosterone should not decline solely because a man is aging. Instead, observed declines are more likely due to modifiable health factors such as poor sleep, high stress, obesity, sedentary behavior, and poor diet.

Importantly, lower testosterone values (e.g., a drop from 600 to 450 ng/dL) in the absence of clinical symptoms or qualifying thresholds do not constitute hypogonadism. Treatment should not be based on age-related decline alone. Many men seek therapy expecting a "magic fix" but fail to address the underlying contributors. TRT may support energy and motivation, but it is not a substitute for exercise, diet, or behavioral change. Patient counseling on lifestyle modification remains essential.

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Definitions & Labs

- **Total Testosterone (TT):** Most common; includes bound/unbound forms.
- **Free Testosterone (FT):** 2% of circulating testosterone; bioactive.
- **Bioavailable Testosterone:** FT + loosely albumin-bound testosterone.

Diagnosis Criteria

- **AUA Guidelines:** TT < 300 ng/dL on two separate AM labs + clinical symptoms.
- **Endocrine Society:** TT < 320 ng/dL or FT < ~64 pg/mL + symptoms.
- **Symptoms:** Low libido (most sensitive), fatigue, depressed mood, decreased muscle mass, ED, gynecomastia, osteoporosis.

Populations at Risk

- Obesity, metabolic syndrome, diabetes, HIV, chronic narcotic use, cancer survivors, sleep apnea, and inflammatory disorders.
- 20% of men under 40 may meet criteria.

Health & Recovery Impacts

- **Low T is linked to:** increased overall and cardiovascular mortality, longer recovery times, and higher complication rates post-surgery (e.g., THA, TKA) associated with major medical complications like UTIs, wound complications, deep vein thrombosis, ER visits, joint infections, revisions and readmission, and higher readmission rates.

- Clinicians in rehab should consider testosterone screening for patients with poor post-op recovery or chronic fatigue.

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Testosterone Therapy: Clinical Pearls

Therapy Goals

- Achieve TT between 450–600 ng/dL.
- Alleviate symptoms.
- Maintain hematocrit <54%.

Contraindications

- Desire for fertility (risk of azoospermia).
- Active prostate cancer (individualized case-by-case).
- Recent CV events (<3–6 months).

Risks & Monitoring

- **Testicular atrophy**
- **Infertility:** 65% azoospermic at 4 months of TRT.
- **Erythrocytosis:** Monitor Hct every 6 months.
- **Estrogen suppression:** Avoid overuse of aromatase inhibitors; normal estrogen supports libido, bone health.
- **Prostate cancer:** TRT does not cause prostate cancer; may be safe post-treatment in select cases.
- **CV Risk:** TRAVERSE trial (2023, NEJM) confirmed no increased MI/stroke risk, but it is worth noting that the men in the study did not achieve therapeutic testosterone levels which might have resulted in a different clinical outcome; nonetheless, the FDA removed the black box warning related to adverse cardiovascular event risk.

Treatment Modalities

Injectables

- **IM:** Testosterone cypionate/enanthate weekly or biweekly (100 mg/wk preferred over 200 mg/2wk to avoid symptom troughs). *Long-acting: Testosterone undecanoate (Aveed) every 10 weeks.
- **Topicals:** AndroGel: daily use; less effective in obese/sweaty patients; risk of transference to others.
- **Pellets:** Implanted 4–6 months for those preferring low-maintenance.
- **Oral:** Jatenzo, Tlando, Kyzatrex: twice-daily with food; useful for needle-averse patients.
- **Subcutaneous auto-injectors:** Xyosted, growing in popularity for ease of use.

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Fertility Preserving Options

- **Clomiphene Citrate (Clomid):** Stimulates endogenous T via GnRH-LH-FSH axis; preserves or improves sperm production.
- **hCG:** Mimics LH; maintains testicular function; can be used adjunctively with TRT to preserve fertility/testicular volume.
- **Anastrozole:** Aromatase inhibitor; only use if estrogen levels are elevated and symptomatic.

Clinical Takeaways

1. **Testosterone is a proxy for male health** but optimize lifestyle first.
2. **TRT is typically lifelong** so counsel accordingly.
3. **Do not prescribe TRT to men desiring future fertility** consider Clomid or hCG instead.
4. **Lifestyle must be addressed** because TRT is not a "magic fix" for weight loss, motivation, or libido without supporting behavior change.
5. **Rehab professionals** should flag possible hypogonadism in underperforming recovery patients and consider collaborative care for T evaluation.

Suggested Labs for Initial Workup

- Total testosterone x2 (AM, fasting)
- Free testosterone (if symptomatic with borderline TT)
- LH, FSH
- Estradiol
- SHBG (optional)
- CBC (for hematocrit baseline)
- PSA (if over 40)