

Dr. Saltiel's Testosterone Deficiency Recommendations

Baseline Assessment

1. Start with general functional medicine assessment and address root causes first, including HPA axis, gut, inflammation, and methylation imbalances; A testosterone deficiency (TD) diagnosis requires both laboratory findings consistent with TD AND signs and/or symptoms consistent with TD.
2. Symptoms: sexual symptoms are the most common. Look for other etiologies with nonspecific symptoms such as fatigue. Administer the ADAM and IIEF questionnaires and look for signs such as unexplained anemia and decreased bone mineral density (e.g., osteopenia, osteoporosis, fractures).
3. Lab tests: serum total testosterone levels below <300-350 ng/dL and free testosterone levels below <65-100 ng/dL suggest TD; test on two separate mornings (no special prep needed, continue regular activities).
4. In addition, test CBC, CMP, PSA, SHBG, LH, FSH, prolactin, thyroid, and DUTCH test (CAR, cortisol metabolites, testosterone & estrogen metabolism). For serum estradiol use an LC-MS/ MS assay.
5. A digital rectal exam is absolutely necessary and the standard of care prior to initiating testosterone therapy.
6. In those with borderline results, consider testicular ultrasound - testicular volume of less than 10 ml could be indicative of testosterone deficiency.
7. If test results are normal but symptoms are present, do a CAG repeats test for androgen receptor sensitivity ([GeneDx](#) offers this). The higher the number of CAG repeats (>24), the less sensitive the androgen receptor is, necessitating higher TT levels for symptomatic relief.



NEW FRONTIERS

IN FUNCTIONAL MEDICINE

8. When considering testosterone therapy, it is prudent to start with a cream or gel (50mg is a reasonable starting dose, which in the literature has been documented to improve clinical outcomes) to assess how they will metabolize the testosterone. If you are considering pellet therapy, the average dose is ~ 750mg every 3-4 months or for every 75mg needed to increase TT into the desired range, a 75mg pellet. Most dose pellets too high.

Outcome Targets

- Serum total testosterone levels between > 500 - < 1000 ng/dL (goal > 500 - 900ng/dL) and estradiol between 30 - 35 pg/mL; re-testing intervals depend on testosterone delivery method (injections, gels, creams, pellets, etc.).
- Resolution of symptoms and clinical findings.

Follow-up assessments

- CBC at months 1, 3, 6, 12 and then biannually to assess for erythrocytosis.
- PSA at baseline and then at 3 months, 6 months and 12 months; then every 6 months thereafter.
- Digital rectal exam at baseline and then at 3 months, 6 months (if complaints persist) and 12 months; then every 6 months thereafter.
- DUTCH test at baseline and then at 4 months; twice annually thereafter.