



TESTOSTERONE (INSUFFICIENCY OR DEFICIENCY)

Low testosterone can lead to a range of symptoms in both men and women, including reduced libido, fatigue, muscle loss, mood changes, and a potential impact on bone density.



Possible Contributing Factors

- Age-related hormonal changes (starting age 35, but especially post-menopause in women)
- Chronic stress or HPA axis dysfunction (especially women)
- Hypothyroidism
- Testicular injury or malfunction
- Hypothalamus and pituitary dysfunction possibly due to:
 - Medications like estrogens, steroids or opioids
 - Alcohol use
 - Elevated BMI (body mass index)
 - Low fat or poor diets
 - Type 2 diabetes
 - Sleep apnea
 - Environmental toxins & endocrine disrupting chemicals
- Nutrient deficiencies: zinc, vitamin D
- Birth control pill
- Ovary removal (surgical induced menopause)
- High prolactin levels

Lifestyle & Dietary Recommendations

- Prioritize sleep hygiene to get undisturbed restorative quality sleep every night
- Stress reduction measures: grounding, meditation, Epsom salt bath, gratitude journaling, yoga, etc
- Adrenal support: sole, stinging nettle tea, rosehip tea and other vitamin C rich foods
- Lift weights and build muscle at least 3 x per week; start slow and build gradually
- Focus on a whole foods VPF diet with quality proteins, vegetables & healthy fats
- Consume more zinc-rich foods: oysters, beef, chicken, crab, lobster, beans, pumpkin seeds
- Regular sun exposure to boost vitamin D production
- Opt for personal care products with low xenoestrogenic chemicals by choosing brands with a toxicity score of 2 or less on EWG.org

Supplement Considerations

- Adrenal adaptogen or glandular support
- DHEA
- Bio-identical hormone replacement therapy
- Zinc, Bulgarian Tribulus, maca, Shatavari
- Vitamin D