

Algorithm for Men

Symptoms that should correlate with test results:

- Thinning of hair on beard and/or body—low testosterone
- Depression—low testosterone, consider decreased thyroid activity
- Disturbed sleep—low testosterone
- Prostate enlargement—elevated estrogen to testosterone ratio; elevated estrogen
- Muscle weakness—low testosterone
- Fatigue—low testosterone, consider decreased thyroid activity
- Irritability—low testosterone, high estrogen
- Thinning skin—low DHEA.
- Slow wound healing—low testosterone; consider diabetes mellitus, check HgB A1c
- Poor concentration and/or memory lapses—low pregnenolone, check atherosclerosis
- Abdominal weight gain—elevated estrogen and low testosterone; consider metabolic syndrome, check HgB A1c
- Loss of interest in sexuality—low testosterone
- Night sweats—very low testosterone (testosterone fatigue failure)
- Loss of bladder control—low testosterone
- Palpitations—low testosterone, consider increased thyroid activity
- Insomnia—low testosterone

****NOTE:** Due to the steady decrease of approximately 2% per year of testosterone after the age of 25, all that is needed 90% of the time is to supplement according to the deficiency of testosterone.

****NOTE: The "cocktail" is complemented with:**

- Progesterone 4 mg to keep the testosterone from becoming DHT or E2.
- DHEA according to the deficiency to keep the testosterone as testosterone and not lose it due to high DHEA
- Chrysin and DIM to maintain the conversion down the "safe pathways"
- Zinc 100 mg and at least Copper 3 mg per day to decrease estrogen formation in men

****NOTE:** Progesterone in men above 10 mg per day may cause loss of erection.

TROUBLE SHOOTING

- While a patient is on hormone treatment, as a rule of thumb, if the hormone isn't achieving the needed result, double the initial dose; if this "new" dose is too much, split the difference of the increase, eg., initial testosterone dose is 100 mg and we've established it's too low, increase the dose to 200 mg (double), if we then determine it is too high a dose, then split the difference ($100/2 = 50$) and the new dose is 150 mg. If this new dose is not enough, split the difference again ($50/2 = 25$) and the new dose would be 175 mg.
- We must listen to the patients, therefore, increasing and decreasing dosages accordingly. Most patients will have overly excitable receptor sites and over time will calm down, needing lower dosages initially and more over time.
- Thyroid function devastates hormone balance.
- In the event of high stress, i.e., death in the family, it may be necessary to double the dose for 1-2 months.
- + 11% of thyroid patients have iodine deficiency and not "thyroid problems".
- If a patient has normal T4 and low T3, think of adding Bromine supplements to the regimen.
- BE ALERT: When treating a couple and the male is on testosterone supplementation and the female partner has elevated testosterone levels, think cross contamination.
- Change one hormone at a time to remove "10's" from the symptom chart (0-10 rating).
- L-Arginine 1,000 mg to 1,500 mg orally: one hour prior to coitus to increase chance of orgasm—may combine with Viagra or other ED medication.

Signs of Low Testosterone in Men	
Pale	Male pattern baldness
Slumped	Undeveloped beard
Fragile	Dry eyes
Kyphosis	Dec. axillary and pubic hair
Lordosis	Gynecomastia
Obesity	Hemorrhoids
Cellulite	Poor concentration
Nervous	Poor memory
Depressed	Weak heart beat
BPH	Decreased musculature
Decreased testicular size	Decreased size and girth of penis
	Peyronie's Disease

**NOTE: DHT is used for Peyronie's disease 25 mg/ml, apply 1 ml on "curve side" of penis daily; or to counteract gynecomastia. **

**NOTE: Usual Testosterone dose: 50 mg/ml to 300 mg/ml 1-2 ml QD **

When is Testosterone Lowered or Raised?	
Increase Testosterone with:	Decrease Testosterone with:
Low protein diet	High protein diet
High fiber diet	High fat diet
Low calorie diet	High calorie diet
Increased physical activity	Decreased physical activity
Chronic stress	Unstressed vacation
Diarrhea	
Progesterone TX	

****NOTE: Testosterone doesn't cause cancer!** It's decline and **preponderance** of estrogen causes cancer, therefore, use testosterone to our benefit by knowing if the cancer is presents quicker. **

- Increased estrogen in men is caused by what? A. caffeinated drinks, B. alcohol, C. wearing tight underwear, D. obesity.
- How do we intervene? A. Zinc 100 mg QD, B. Progesterone 5 mg QD, C. Anastrozole 0.5 TIW or BIW or QW x 30 days.
- To lower estrogen and Sex Hormone Binding Globulin (SHBG):
 - Decrease alcohol intake
 - Decrease caffeine intake
 - Increase nitrogen balance (high protein)
 - Decrease obesity
 - Use loose underwear and pants
- High fat and aromatase changes testosterone to what? Estrogen
- What is varicocele? Testicular blood stagnation
- How is it cured? DHT onto vein or surgery
- Too much testosterone can cause what? Elevated estrogen
- Therefore, do what? Lower testosterone
- Too much thyroid causes what? Increased change of testosterone to estrogen
- Therefore, do what? Lower thyroid
- Decreasing GH will do what to aromatase activity? It will increase it.
- Therefore causing what? Elevated estrogen
- The lower the testosterone and DHT in a person, the aromatase activity? Higher
- Cortisol deficiency leads to what? Testicular insufficiency
- Which does what to Sex Hormone Binding Globulin (SHBG)? Increases it.
- Which does what to androgen activity? Decreases it.
- Which increases what? Aromatase
- Which in turn leads to what? Increased estrogen.
- Progesterone deficiency decreases the conversion of what? Estradiol (E2) to Estrone (E1) to Estriol (E3)
- Foods that decrease estrogen effects and estrogen are what? A. meat, B. soy products, C. carotene vegetables, D. shellfish, E. resveratrol, F. vitamin C and K, G. zinc, H. niacin
- RX's that decrease estrogen include what? A. spiroinolactone, B. tamoxifen, C. thiazides.
- Testosterone increases the conversion of what to what? T4 to T3

Problem	Cause	Solution
Red Face	High estradiol	Decrease alcohol and/or caffeine, increase progesterone and/or zinc; avoid tight underwear and pants.
Acne	Increased sebum	Change diet: decrease milk, sweets, sugar and chocolate; decrease androgens
Hirsutism	Increased body follicle	Decrease DHT production
Feet edema	Increased salt retention	Increase potassium (1-3 gm QD) if there's no change, decrease androgens
Road Rage	Androgen overdose can cause brain edema which is an increase in GH deficiency	Decrease androgens and/or increase GH
Excessive libido	Too much testosterone changed to estradiol in brain; increase in androgen receptors in glans penis, scrotum and nipples.	Decrease androgens and decrease conversion of testosterone to Estradiol (E2)
Excessive erection	Too much DHT; increase in androgen receptors	Decrease dose of androgens and decrease conversion to DHT
Hair loss / Excessive body hair	Too much DHT	Finasteride 1 mg PO QD and eat less meat
Low Libido	Low estradiol	Increase testosterone and androgens
Impotence	Low DHT Elevated estradiol (E2)	Decrease estradiol (E2), increase testosterone and androgens
Peyronie's	Fibroid in penis; lack of DHT; possibly low cortisol	Apply DHT to penis, side of curve; if cortisol is low, small doses are ok; DHEA 20 mg – 60 mg QD
Breast tenderness	Testosterone changed to E2	Give DHT and Anastrozole
Real gynecomastia	Testosterone changed to E2	Tamoxifen and decrease androgens
BPH	Testosterone changed to E2	Decrease caffeine and alcohol
Testicular atrophy	Elevated E2 (more often); elevated testosterone less often	Decrease E2 levels if no improvement, inject HCG 150 IU QD
Prostate Cancer/Breast Cancer	Low testosterone and/or DHT	STOP testosterone. Take Q10 200 mg to 400 mg. If melatonin is low add melatonin. DHEA ok after PC, if DHEA does not react. Testosterone TX ok after 5 years.