

## **Hormones in Males**

Testosterone in men is vital for energy, muscle mass and strength, libido and fat distribution.

## **Symptoms of imbalances**

- loss of libido
- fatigue
- decreased muscle strength
- diminished virility or sense of well being
- poor erection
- weight gain

## **Laboratory Tests to Diagnose**

- free/total testosterone
- PSA
- SHBG

- estradiol
- CBC
- DHT

Safety/Data The big concern for men who receive testosterone therapy is the increased risk of prostate cancer and heart disease. This has been proven wrong by many international studies and work by Abraham Morgenthaler at Harvard University since 2006. Much evidence now points to the findings that men with Low testosterone are more likely to develop heart disease, insulin resistance/diabetes and more aggressive forms of prostate cancer. There are two forms of testosterone available-Intermuscular (IM) and pellets. Pellets are preferred due to a more constant level of available testosterone to meet optimal needs and demands. Creams have issues with absorption and IM injections have the possibility of spiking peaks and valleys in testosterone availability. Pellets provide a constant reservoir of testosterone with a steady state release over life of the pellets which is around 3-5 months. Pellets are currently the best way in which to supplement testosterone in men. Please check out the work of Dr. Abraham Morgenthaler from Harvard University as he has done extensive research on benefits of testosterone and safety of heart and prostate health.

## **Treatment:**

IM injections weekly or pellets every 3 - 6 months

For young men needing testosterone replacement treatment, we offer Clomid 50 mg three times a week or HCG 250 -500 Units Subcutaneous 2 - 3 times a week. There is no clear data to suggest these alone are enough to raise Testosterone levels. Most of the studies done were on utilizing testosterone with either clomid or HCG together to preserve fertility and testicular size in young men. They were very promising.

**Additional information** For men on hormone replacement, elevated estrogen and Dihydrotestosterone (DHT) can occur. If elevated estrogen is noted (aromatization), we utilize Di-indole-methane (DIM) (100?400mg) daily, Zinc 50mg daily, **or** Arimidex 0.5 mg 2 times a week (more commonly and easier Arimidex can be added into pellet treatment). If Elevated DHT occurs, it can cause hair loss and/or enlarged prostate. Treatment is Saw Palmetto 200mg 2 times a day, Proscar (5 mg) daily or Zinc (50 mg) daily. DIM, Zinc Supreme, and Saw Palmetto are available through Designs for Health.