



M E D I C A L S P A  
A N D L A S E R C E N T E R



## **Introduction**

Data supports that testosterone implants effectively treat symptoms in both men and woman. Implants, placed under the skin, consistently release small, physiologic doses of hormones providing optimal therapy without adverse effects.

## **What are Pellets?**

Pellets or implants are made up of bio-identical hormones (i.e., testosterone or estrogen that are the exact formula your body manufactures) and are derived from natural plants that are pressed or fused into very small solid cylinders. These are larger than a grain of rice and smaller than a "Tic Tac". In the United States, the majority of pellets are made by compounding pharmacists and delivered in sterile glass vials.

## **Why pellets?**

Pellets deliver consistent, healthy levels of hormones for 3-4 months in woman and 4-5 months in men. They avoid the fluctuations, or ups and downs of hormone levels (roller coaster effect) seen with every other method of delivery. This is important for optimal health and disease prevention. Pellets do not increase the risk of blood clots like conventional or synthetic hormone replacement therapy.

In studies when compared to conventional hormone replacement therapy, pellets have been shown to be superior for relief of menopausal symptoms, maintenance of bone density, restoration of sleep patterns, and improvement in sex drive, libido, sexual response, and performance.

Testosterone delivered by a pellet implant has been used to treat migraine and menstrual headaches.

Testosterone also helps with vaginal dryness, incontinences urinary urgency and frequency. In both men and woman testosterone has been shown to increase energy, relieve depression, increase sense of wellbeing, relieve anxiety, and improve memory and concentration. Testosterone delivered by pellet implant, increases lean body mass (muscle strength, bone density) and decreases fat mass. Men and woman need adequate levels of testosterone for optimal mental and physical health and for the prevention of chronic illnesses like Alzheimer's and Parkinson's disease, which are associated with low testosterone.

Even patients that have failed other types of hormone therapy have a very high success rate with pellets.

There is no other 'method of hormone delivery' that is as convenient for the patient as implants. Implants have been used in both men and woman since the late 1930's. There is significant data that supports the use of testosterone implants in both men and women.

Bio-identical progesterone (including FDA approved Prometrium) has not been shown to increase the risk of breast cancer like the synthetic progestins. In addition, progesterone, used vaginally, does not negate the beneficial effects of estrogen on the heart like synthetic progestins.

### **How long until a patient feels better after pellets are inserted?**

Some patients begin to 'feel better' within 24-48 hours while others may take 10-14 days to notice a difference. Diet and lifestyle (exercise), along with hormone balance are critical for optimal health. Stress is a major contributor to hormone imbalance and illness. Side effects and adverse drug events from prescription medications may interfere with the beneficial effects of the testosterone implant.

### **How long do pellets last?**

The pellets usually last between 3-5 months in woman and 4-5 months in men. The pellets do not need to be removed. They completely dissolve on their own... And remember not all pellets are created equal.

### **Do patients need progesterone when they use the pellets?**

No. Woman who are treated with testosterone implants alone (no estrogen therapy) do not require progestin therapy.

However, if estradiol or other estrogen therapy is prescribed, progestins are also needed. The main indication for progesterone is to prevent the proliferation (stimulation) of the uterine lining caused by estrogen. Progestin therapy is NOT required if estrogen therapy is not prescribed. However, there may be other health benefits from 'the hormone, progesterone. It may be used in addition to help woman who have difficulty with sleep, hot flashes, tension, or anxiety. Testosterone and progesterone have beneficial effects on the brain and nervous system, Progesterone implants have been used since the 1940's.

### **How are hormones monitored during therapy?**

Hormone levels may be drawn and evaluated before therapy is started. This may include an FSH, estradiol, and testosterone for woman. Men need a PSA (prostate specific antigen), sensitive estradiol testosterone (free and total), liver profile and a complete blood count prior to starting therapy. Thyroid hormone levels will be evaluated along with Vitamins D, 812 and Ferritin.

In men, follow up levels, including a PSA, blood count and estradiol, may be obtained prior to subsequent testosterone implantation. Men must notify their primary care physician and obtain a digital rectal exam each year. Women are advised to continue their monthly self-breast exams and obtain a mammogram and/or a pap smear as advised by their gynecologist or primary care physician.

### **How much do pellets cost?**

The cost for the insertion of pellets is \$350 for woman and \$625-725 for men depending on the dose of the hormone and the number of pellets needed. Men need a much larger dose of the hormone and the number of pellets needed. Men need a much larger dose of testosterone than woman therefore the cost is higher. Pellets need to be inserted 2 to 4 time a year depending on how rapidly a patient metabolizes hormones. When compared to the cost of drugs to treat the individual symptoms of hormone decline, pellets are very cost effective.

### **Will insurance cover the procedure?**

Very few insurance companies cover the cost of pellets. Payment is required at the time of service. Prevention is much more cost effective than disease.

### **Is there a role for testosterone implants (pellets) in premenopausal female?**

Testosterone pellets may be used in premenopausal females (woman who have not stop menstruating).

Testosterone has been shown to relieve migraine and menstrual headaches, help with symptoms of PMS (premenstrual syndrome), relieve anxiety and depression, increase energy, help with sleep, and improve sex drive and libido, if a premenopausal female has a testosterone pellet inserted, birth control is recommended. There is a 'theoretical risk of masculinizing' a female fetus (giving male traits to a female fetus).

**Can a patient be allergic to implants?**

Very rarely, a patient will develop a local zone of redness (3-8 cm) with itching at the site of the testosterone implant. There is minimal or no tenderness and no other signs of infection. Pellets are made up of testosterone, stearic acid and sometimes PVP (povidone). Patients may react to the PVP. Our pellets are made without PVP. Many patients who develop a local reaction to the implant have low cortisol levels and upon further questioning have symptoms of adrenal insufficiency. Cortisol may be recommended. if needed, 25-50 mg of Benadryl works well for the itching.

For more information, please contact our office at:

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