

What kind of
HORMONE REPLACEMENT
is right for YOU?



Hormone Imbalances Are An Epidemic Today

Hi, I'm Dr. Anthony Capasso, and I'm board certified in internal medicine, graduated Cum Laude and with distinction, went on to become the associate medical professor at the University of Florida, and have spent the majority of my time, energy and research as the Director of Integrative Medicine and Founder of Thin MD Med Spa.

I founded the med spa to help my clients optimize their health internally so they can look and feel YEARS younger. The result of this has positioned me in the news often, and consistently kept my name in the top list of Florida physicians.



For more about me and my research in hormone health, watch this video:

<http://DrAnthonyCapasso.com>

I put this FAQ book together for my patients who suffer from hormone imbalances, who want to improve their energy, weight loss, sleep, memory, and the health of their hair, skin and nails.

Let this serve as your guide, then call our friendly staff and you'll be surprised at how fast you can begin looking and feeling amazing again!

Here's to a healthier you,

Dr Anthony Capasso MD

Founder, Thin MD Med Spa

<http://DrAnthonyCapasso.com>

We help our clients look and feel YEARS YOUNGER - what's your superpower?

Hormone Pellets—FAQ

Here's just a few of the answers uncovered in this report...

- 1. What are hormone pellets?**
- 2. Why pellets?**
- 3. Why isn't estrogen therapy or Estradiol pellet therapy recommended?**
- 4. Will Estradiol hormone therapy and testosterone pellets help with hair loss?**
- 5. How long until a patient feels better after pellets are inserted?**
- 6. How long do pellets last?**
- 7. Do patients need progesterone when they use the pellets?**
- 8. How are hormones monitored during therapy?**
- 9. How much does this cost?**
- 10. How long does the procedure take?**
- 11. Will insurance cover the procedure?**
- 12. Is there a role for testosterone pellets in a pre-menopausal woman?**
- 13. How do I know if I am a good candidate for testosterone pellet therapy?**
- 14. Can a patient be allergic to the pellets?**
- 15. What are the side effects (if any)?**
- 16. Am I able to maintain my normal activities after the procedure?**

What are testosterone pellets?

One of the best ways for natural hormone replacement is with bio identical testosterone pellets. The pellets are made up of natural testosterone and are pressed into very small solid cylinders by a compounding pharmacist. They have been used in Europe and Australia for years.

These pellets are about the size of a grain of rice. Testosterone pellets have been used in both men and women in the United States since the late 1930s and the 75 mg testosterone pellet was FDA approved in the 1970s.

Testosterone pellets are one of the best ways to replace testosterone naturally in your body. Testosterone pellets do require a prescription from a physician and are administered by physician in their office with a simple procedure. They are primarily used for testosterone deficiency in both men and women who are unable to make sufficient amounts of testosterone in their body due to menopause, andropause, chronic diseases, injury or other unspecified causes.

Multiple studies support that hormone replacement therapy with pellet implants is the most effective and natural way for both men and women.

The pellets are made by a compounding pharmacist under sterile procedure and are placed in sterile vials or ampules. They can be sterilized by different methods. I suggest not using the pellets that are sterilized with "iodine" since this may cause a reaction or rejection after it's placed. For this reason, I prefer to use the pellets that are sterilized with radiation

They can be easily inserted in a quick office procedure in your doctor's office, taking 8 to 10 minutes with virtually no pain. The pellets are placed into the fat area of your upper buttock/ hip region. Your physician will clean the skin with a topical antibacterial scrub, then numb the area on your hip with a local anesthetic like lidocaine.

Then the pellets would be inserted through very small incision in your skin into the fatty layer, which is then taped closed. No stiches are needed. The pellets will completely dissolve over the next 3 to 6 months depending on the number of pellets placed and how quickly your body breaks it down.

The testosterone pellets work by releasing a constant supply of testosterone into your body in a natural way. Your body will form blood vessels over the pellets to allow the hormone to get into your blood stream at a slow consistent rate. If you are more active, your body may require more testosterone and the pellets will get absorbed quicker.

The reservoir of testosterone pellets under your skin mimics what your ovaries or testes would do in your body, allowing your body to get testosterone at a consistent level. This is the most physiological or natural way to deliver hormones to your body avoiding the fluctuations that can make you feel sick, emotional and sluggish.

In women they deliver healthy levels of hormones for 3-4 months and 4-5 months for men.

Studies have shown that testosterone hormone pellet therapy was superior to conventional hormone replacement for relief of menopausal symptoms; improving restorative sleep, maintaining bone density, and improving sex drive response and performance!

What symptoms can Testosterone pellets help?

- Low energy
- Anxiety or depression
- Poor memory
- Poor muscle strength
- Increased body fat
- Menopausal symptoms (Hot flashes, night sweats, weight gain)
- Poor sleep
- Osteoporosis or osteopenia
- Headaches

In studies, it has been shown to treat migraines, menstrual headaches, vaginal dryness and incontinence. Chronic brain illness like Parkinson or Alzheimer's dementia has been associated with low testosterone levels in both men and women. Optimal levels of testosterone throughout your life may help to prevent some of these chronic illnesses. Testosterone pellet therapy has worked even in patients who have failed other types of hormone replacement.

To see if you are deficient in testosterone, we will do a complete evaluation including a symptom questionnaire and baseline hormone labs prior to starting treatment. During your pellet hormone therapy our physician will again recheck your labs to make sure that the dosing is proper and monitor you for any other potential complications.

There are numerous studies that support the safety and efficacy of testosterone pellets in both men and women and it has the best convenience and safety profile for replacement. It is important to find an experienced health care provider to determine the proper dosing and placement of the pellets. Dr. Anthony Capasso has been doing hormone pellet replacement since 1998 and has trained over 40 physicians on his techniques.

What Are The Advantages Testosterone Pellets?

There are many advantages to testosterone pellets therapy namely it is delivered in a steady matter which keeps your levels consistent in your blood and avoids a erratic swings that may occur using other delivery forms of testosterone. Testosterone pellets do not increase the risk for blood clots like conventional or synthetic hormone replacement. Another advantage is you don't have to worry about applying a topical gel, which may have a characteristic odor on a daily basis. In addition, the topical gel's can be absorbed in other people within four hours of application. So caution has to occur around spouses and children because they may absorb the testosterone with skin contact. In addition to the above, testosterone pellets therapy is a much more convenient method of delivery since it only needs to be done every 3 to 5

months. There are very few disadvantages to using testosterone pellets they include having to do a minor office procedure.

Are There Any Complications To The Insertion Of Pellets?

Complications are *rare* from the insertion of pellets.

They can include:

- **Minor bleeding** during the procedure especially if you are taking an aspirin, fish oils or blood thinners. We usually have you discontinue your blood thinner 1 week prior to the procedure to lower this complication.
- **Bruising or discoloration** of the skin lasting just a few days. This is also increased if you are on blood thinners.
- **Infection-** occurs in less than 2% of patients. Some patients may need to be pre-medicated with an antibiotic if they are at high risk for infections. High-risk patients include: Diabetics, or patients who have had Joint or valve replacements.
- **Extrusion-** or backing out of the pellet. Usually from starting vigorous exercise too soon after pellet placement.
- **Foreign Body reaction-** rarely patients can reject the pellet as being “foreign to you body” and extrude it. This usually occurs if the pellets are placed too superficial under your skin or there are sterilized with povidone iodine. We do not use pellets that are sterilized that way because of the potential higher risk for this reaction

What Are The Side Effects Of Testosterone Pellets?

The side effects of testosterone pellets are rare. In less than 5%, infection can develop at the injection site; most times it's the body rejecting the pellet thinking the pellet is a foreign object. Most of the time the skin cultures don't grow any bad bacteria and simply removing the pellets and taking a short course of antibiotics will heal it up quickly.

In less than 2% of the cases, if the pellet is not implanted correctly they may extrude out especially if physical activity is started too soon after pellet placement. Other minor side effects to testosterone therapy include: slight facial hair growth in women, enlargement of breast tissue in males, increased risk for acne, prostatic enlargement, increased anxiety, and an increase in the red blood cells or blood counts.

If your blood counts increase too high donating some blood to the blood bank will get it back to normal. All forms of testosterone replacement can give the above side effects. The only one specific to pellets is extrusion.

Some of the above side effects occur when the testosterone in your body converts into excess estrogen. There are natural substances and prescription medications that can decrease the conversion of testosterone to estrogen in your body. When indicated, your doctor may prescribe natural substances or medications called *Aromatase Inhibitors*.

To reduce these unwanted side effects. Your doctor will check the conversion of testosterone to estrogen in your blood work to determine whether or not you need to use aromatase inhibitor's like the prescription medication anastrozole or natural substances like DIM. DIM (*3,3'-Diindolylmethane*) is a compound derived from the digestion of indole-3-carbinol, found in cruciferous vegetables such as broccoli, cabbage, kale, and Brussels sprouts. High concentrations of DIM can be found in prescription grade vitamins.

Why Isn't Estrogen Pellet Therapy Recommended In Everyone?

Almost all symptoms associated with menopause, including hot flashes and night sweats, can be treated with testosterone only pellet therapy without the bad side effects that estrogen can cause. Because of this, I don't recommend estrogen pellet therapy in every female. In studies, greater than 50% of the women who had estrogen pellets had experienced uterine bleeding. Past clinical studies looking at estrogen pellets reveal higher side effects: including weight gain, edema, breast pain, and increased risk for breast cancer.

Estrogen in females stimulates the endometrium and potentially could cause bleeding. In a post menopausal woman, this would cause an unnecessary evaluation by a gynecologist which typically includes a vaginal ultrasound and or endometrial biopsy, to ensure that the bleeding was not related to cancer. Most women will feel better when there estrogen levels are lower and have an optimal estrogen to progesterone hormone ratio.

High estrogen levels have been associated with:

- Weight gain-Belly fat
- Heavy menstrual bleeding
- Fibroids
- Fibrocystic breasts
- Tender breasts
- Migraines
- Anxiety
- Mood swings/emotional lability
- PMS symptoms

In addition, long-term exposure to synthetic estrogen's (Premarin) or higher estrogen (estradiol) is likely to increase the risk for breast cancer.

A study published by Sherwin in 1985 revealed that 89% of the participant's menopausal symptoms, including hot flashes and night sweats were relieved with testosterone pellet only. Testosterone pellets therapy is extremely effective and it doesn't have the unwanted side effects like weight gain, breast tenderness/cysts formation, swelling or uterine bleeding associated with it. It is the preferred method for hormone replacement in peri-menopausal and menopausal women.

Some women may need estrogen, especially if they've had a hysterectomy at a young age. In addition to the testosterone pellets, a lower dosage of natural estradiol pellets are preferred and tolerated better than the higher doses that were used in past studies.

Men and women both can convert too much testosterone into estrogen by the enzyme *aromatase* this sometimes can interfere with the beneficial effects of testosterone and cause unwanted side effects. Aromatase inhibitors like the natural substance DIM or the prescription anastrozole maybe prescribed to prevent unwanted symptoms. Recent clinical studies have used pellet combinations of testosterone with anastrozole in breast cancer survivors and in men with higher tendencies to convert their testosterone to estrogen.

Will Hormone Pellets Help With Hair Loss Or Cause It?

Hormone deficiency can be a common cause of hair loss in both men and women. Hair loss or thinning can be caused from many things like thyroid problems, iron deficiency, hormone imbalances, infections, medications, chemicals and other causes.

Hair thinning in untreated postmenopausal women is probably related to lower hormone levels including estrogen and testosterone. In men and women we have seen hair and scalps become healthier with proper balancing of hormones like

thyroid, estrogen, and testosterone within several months of being on pellet hormone therapy. Estradiol and testosterone pellets can help re-grow your hair if your hormones are deficient.

What about male pattern baldness or androgenic alopecia? Isn't that from high testosterone?

Male pattern baldness occurs in predominately men and rarely in women who inherit hair follicles with a genetic sensitivity to the hormone dihydrotestosterone (DHT). Hair follicles sensitive to DHT causes the hairs to get thinner and die off earlier. The areas of the male scalp sensitive to DHT include the crown and hairline, which can progress to more apparent baldness leaving a small area or "horseshoe" pattern of hair in men if left untreated.

DHT is a byproduct of testosterone breakdown. Testosterone is converted to DHT in your body by the enzyme 5-alpha-reductase. Keeping DHT levels lower in your body allows the hair follicles to continue to thrive. Some males have a higher tendency to convert their testosterone to DHT causing hair to shrink and fall out. We usually suggest natural nutrients that decrease that conversion or block the 5-alpha-reductase enzyme, like the natural substance saw palmetto or prescription DHT blockers like *Finastride* or *Avodart*. Fortunately women rarely convert down this pathway and don't experience hair loss with testosterone pellet therapy.

Hair loss in post-menopausal females is **not** associated with androgen excess because their levels of androgens are usually **low**. In fact, most of the thinnest, brittle hair we see in our clinics is in post-menopausal women with the lowest testosterone levels. Within 3-4 months of optimizing their hormones we see new hair growth and healthier scalps.

How Long Until A Patient Feels Better After Pellets Are Inserted?

Most patients feel better in 7 days. However some will feel better in as soon as two days and as long as two weeks. There are other important factors that will affect how

quickly you will feel after testosterone pellets are inserted. Poor sleep, diet or increased stress can make it feel like your hormones are not working and contribute to hormone imbalances. It is vital to balance your life with proper sleep, exercise, nutrition, and relaxation to obtain optimal health allowing your body to get back to awesome.

How Long Do Testosterone Pellets Last?

In women, testosterone pellets last 3-4 months and 4-5 months in men. Pellets may be needed 2-4 times per year.

Do Patients Need Progesterone When They Use Testosterone Pellets?

Progesterone like your other hormones may need to be replaced but it is not always needed with testosterone pellet therapy. During your initial evaluation your specific symptoms and lab work might suggest a need for natural progesterone replacement. If you complain of anxiety or poor sleep, bio-identical or natural progesterone may be indicated.

Topical, oral or vaginal preparations are used. We will prescribe a bio-identical progesterone, like the FD approved *Prometrium*, to help balance your hormones. The bio-identical progesterone's have not been associated with an increase risk for breast cancer. This differs from the synthetic progestin (Provera), which has been shown to increase breast cancer in the WHI study.

If you have been prescribed estradiol, or other estrogen therapy then natural progesterone is *needed*. We use the natural progesterone to prevent the growth of the uterine lining caused from unopposed estrogen therapy. Progesterone can *reduce* the risk for endometrial cancer if you are taking estrogen therapy.

Are My Hormones Monitored During Testosterone Therapy?

Hormone levels are evaluated at the onset and during your treatment. We draw comprehensive hormone panels and discuss with you your history and formulate an individualized plan with appropriate follow-ups.

The typical labs we follow:

- Estradiol
- Testosterone (Free and Total)
- SHBG
- Progesterone
- Pregnenolone
- Cortisol
- PSA
- IGF-1
- CBC
- Thyroid (TSH, free-T-4, and free T3)
- FSH/LH
- CMP

How Long Does The Testosterone Pellet Procedure Take?

The procedure is simple, relatively painless and only takes 5-10 minutes in the office. It is done under local anesthesia. Under sterile conditions, the pellets are inserted in your upper hip/buttocks area through a small incision.

It is then its taped closed with a steri-strip and a small dressing is applied. The dressing can be removed in 1 day, but allow the steri-strip to fall off over the next 7-10 days.

Will Insurance Cover Testosterone Pellets

Most insurance companies will not cover the cost of pellets, especially in women. Patients may want to contact their insurance carriers to see if the pellets and the procedure are a covered.

Can Pre-Menopausal Women Use Testosterone Pellets?

Pre-menopausal women can use testosterone pellet replacement to help relieve multiple symptoms. Symptoms that can be treated:

- Migraines or menstrual headaches
- Anxiety
- Depression
- PMS
- Poor sleep or insomnia
- Low libido or sex drive
- Low energy

All pre-menopausal females that have testosterone pellet placed must use birth control because of the potential harmful effects that testosterone could theoretical cause to a developing fetus. It could potentially cause masculinizing “giving male” traits to a female fetus.

How Can I Tell If I Have Low Testosterone?

Symptoms & Signs of Declining Testosterone May Include:

- Mental or physical fatigue
- Increased joint pains, muscle stiffness, decreased coordination
- Low libido or sex drive
- Decline in physical performance and endurance
- Decreased body hair, sagging skin or wrinkles
- Hot flashes
- Poor sleep
- Erectile problems
- Poor focus or concentration
- Increased blood sugar, elevated cholesterol

IN MEN:

Testosterone is the principal male sex hormone and is responsible for characteristics often associated with being a man. Testosterone loss may begin as part of the aging process at about 35 and can cause a host of symptoms generally referred as Andropause.

It is more common in patients with Diabetes, Chronic Pain syndromes and patients that may have had a mild concussion in the past.

If you have some of the symptoms associated with low testosterone a simple blood test can determine whether you have low testosterone and you could benefit from testosterone pellets.

Low testosterone levels are associated with rapid aging, heart disease, diabetes, arthritis, autoimmune disease, pain, Alzheimer's disease and Parkinson's disease.

Testosterone pellets can improve:

- Libido
- Sex drive
- Energy level
- Mental focus
- Loss of belly fat
- Muscle mass
- Sleep quality
- Body hair growth
- Thickness of your bone or
- Bone density
- Memory and concentration
- Mood

Testosterone pellets are the most effective form of testosterone therapy available. Testosterone replacement can prevent and reverse disease progression.

Can I Be Allergic To Testosterone Pellets?

Allergic reactions are rare to the testosterone component in the pellets. However, patients can reject the pellet as being “foreign to your body” and extrude it. You would develop a small 2-3 cm area of redness over the incision site 1-2 weeks after implantation with a small amount of clear drainage.

There is also mild tenderness over the site. This can occur if you have an allergy to the povidone iodine (PVP) component or stearic acid that may be in the pellets. Povidone iodine is used in some pellets for sterilization. We do not use pellets that are sterilized that way because of the potential higher risk for this reaction, instead we use pellets that are irradiated.

A short course of antibiotics and removal of the pellets may be indicated to resolve this reaction. We have also seen this reaction occur when your cortisol levels are low. Cortisol hormone testing may be indicated if you have signs of adrenal insufficiency. In addition, if the testosterone pellets were placed too superficial under your skin they may extrude out like your body is rejecting them. Simply placing the pellets deeper into the fat layer under the skin resolves this.

When Can I Resume Normal Activities After Getting Testosterone Pellets?

We suggest avoiding vigorous physical activity for the first two days, especially low body workouts, to allow the skin to heal and close preventing extrusion or the working out of the pellet.

We have seen that early physical activity is the major cause of extrusion. We also to suggest not swimming, taking a bath or hot tub for 2-3 days after implantation to avoid possible infections. Showering is allowed. Upper body and low impact exercises are acceptable in 24 hrs after implantation.

Antibiotics are typically not prescribed because the procedure is done under sterile conditions and infection rates are low. However, antibiotics may be prescribed if a patient has a chronic inflammation of the hair follicles called folliculitis, diabetes, a valve replacement or has had a joint replaced.

Testosterone replacement can easily be administered in the form of a topical gel applied to the skin, sublingual lozenges, intra-muscular injection, or sub dermal pellet implants.

Pellets are the most effective form of testosterone therapy available.

Testosterone replacement can prevent and reverse disease progression.

For information on testing and hormone therapy contact:

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