



### **Why do I need any hormone replacement?**

*Women need replacement if they desire to:*

*Delay the symptoms of aging*

*Reverse depression and anxiety*

*Regain libido*

*Preserve skin and muscle tone*

*Look younger*

*Increase energy*

*Strengthen the immune system*

*Improve physical stamina*

*Cure insomnia*

*Thicken hair*

*Protect against osteoporosis, dementia, diabetes, and heart disease*

*Prevent need for long term care from loss of ability to walk*

*Improve general health*

### **What is Menopause?**

*Menopause is the third stage of aging. The first stage is losing your testosterone. The second stage is losing your progesterone. Menopause is when you enter the last stage of aging, and it doesn't end. You are in this stage until you die. That is why we need to learn how to treat it and live with it.*

### **What symptoms are treated by estrogen injections?**

*Estradiol injections adequately treat hot flashes, vaginal dryness, painful intercourse, dry skin, and thinning hair.*

### **What symptoms are treated by testosterone injections?**

*Testosterone injections treat the symptoms of low libido, difficulty with orgasm, depression, fatigue, muscle mass loss, weight gain, belly fat accumulation, immune system abnormality, autoimmune diseases, dry eyes, mental decline, loss of exercise stamina, loss of motivation, and many other symptoms of testosterone depletion.*

**How is testosterone deficiency diagnosed?**

*Deficiency is diagnosed through a symptom checklist, a thorough medical history examination, in conjunction with a low total and free T in your blood level.*

**Can I take testosterone injections if I am not menopausal and still cycling?**

Yes. Most patients begin treatment sometime around 40 or if their ovaries are removed. Testosterone from the ovary disappears before menopause and should be replaced when a woman becomes symptomatic.

**How is dosage calculated?**

Every treatment plan is unique. We recreate what the normal daily production of testosterone and estradiol by a young ovary should be and deliver enough of that dose to last until the next injection. This dose is then adjusted according to body mass, exercise frequency, stress levels and medications the patient is on.

**Where are injections given?**

Injections are intramuscular and given in the upper-outer quadrant of the hip.

**How long will it take for the injections to work?**

It takes 1-4 weeks to get the full effect. Injections must be given at least every 10-14 days before symptoms recur. We recommend weekly injections.

**How long will my injection last?**

Injections last 10-14 days. If you don't get a lot of sleep, exercise, do stressful work, or participate in athletics, you will use the hormones more quickly and we may need to dose you with a stronger dose on your next visit.

**Do estradiol or testosterone cause weight gain?**

Testosterone increases the thickness of bones and muscles which increases lean body mass. But, it also decreases fat at the same time. Many women taking hormones start by dropping sizes and don't begin to lose weight for 9-12 months. A high protein, lower carb diet is recommended. Some women have water retention when they begin treatment until their body adjusts to new hormone levels.

**How long will it take for me to start losing weight?**

That depends on how much you exercise you do, how over weight you are when treatment begins, and what other relevant medical conditions you have. We always try to help you with your weight loss by optimizing your injection dose and balancing your other hormones.

**How long can I take injections?**

You can take injection replacement hormone therapy as long as you wish. Bio-identical hormone replacement is the closest thing to your natural hormones that you can receive. The replacement of both estradiol and testosterone prevents many of the diseases of aging. We treat patients into their 70's and 80's.

**What diseases can be delayed or avoided if I take testosterone?**

The known diseases that testosterone can delay or prevent include:

Osteoporosis

Auto-immune diseases

Fibromyalgia

Immune Deficiencies

Dementia and Alzheimer's Disease

Parkinson's Disease

Frailty

Heart Disease and Stroke

Type II Diabetes

Obesity

Insulin Resistance

**If I take testosterone will I need DHEA supplementation?**

The reason someone might need DHEA is because their testosterone level is good, but they still have "sagging skin." In this case, we recommend only 7 keto-DHEA in doses of 25 mg or less. Other types or doses above 25 can cause an increase in estrone which means weight gain and increased risk of breast cancer.

**If I have diabetes, will testosterone help me with my blood sugar?**

Yes. Testosterone is very safe for diabetics and generally increases insulin sensitivity, which will decrease triglycerides and stabilize blood glucose. It will improve the status of your diabetes and help you lose weight.

**Does testosterone improve depression and anxiety?**

Yes. It often replaces anti-depressants (which decrease libido) after only a few months of treatment for patients whose anxiety and or depression began around age 40.

**What if I begin to bleed after menopause?**

There is a risk for bleeding with any ERT (estrogen replacement therapy) but we minimize the amount of estradiol you receive and increase the dose of progesterone. This helps to protect you from post-menopausal bleeding. If this does not work, then we send you to your gynecologist for a uterine biopsy, ultrasound, or the placement of a Mirena IUD which counteracts uterine bleeding by providing a small amount of progesterone inside the uterus.

**How do cholesterol-lowering drugs affect testosterone?**

Testosterone is made of cholesterol. When you take cholesterol-lowering drugs, you decrease the substrate that testosterone is made of, and generally decrease the level of testosterone. Testosterone replacement lowers cholesterol, so we can recheck labs in 3 months to see if your lipids are much lower. We then suggest that you do a trial without the medication to see if you still need it.

**Does testosterone cause breast cancer?**

No. Testosterone injections improve the immune system function so you can fight all types of cancers more easily than before you started treatment.

**Does testosterone cause blood clots?**

No, it does not.

**Do estrogen cause blood clots?**

No, it does not.

**If I have used alcohol to excess or drugs like marijuana in the past, will I get the same effects as other women?**

No. You will likely consume the testosterone more quickly than other women because your liver is hyper-activated to metabolize testosterone with the same enzymes that metabolize alcohol and drugs.

In addition, marijuana increases prolactin, the hormone that increases breast size in men and women. Prolactin not only decreases your testosterone level but decreases your sex drive and sexual stamina. It is expected that if you take testosterone, you will stop using marijuana altogether and moderate your alcohol consumption.

**Can I take birth control pills with testosterone?**

We strongly suggest that you do not because it dampens the effects of the testosterone. Instead of oral contraceptives we encourage our patients to get a Mirena IUD or permanent birth control (like a tubal ligation or have their husbands get a vasectomy) instead of taking the pill. Many women who insist on continuing the pill are disappointed in the resolution of their symptoms, and they decide after they experience the problem to seek out other birth control. Birth control is, of course, not needed after menopause.

**What other medications inactivate or interact negatively with estradiol and testosterone?**

We suggest you look for alternative medications for the following drugs:

Corticosteroids such as prednisone

Medrol Dosepak

Tamoxifen

Progestins (not progesterone) such as Provera

DHEA that is not 7-keto DHEA

Other hormones given orally like oral contraceptives

Anti-depressants

Drugs for schizophrenia or bipolar disorder, which suppress the libido

**I am a breast cancer survivor; can I take bio-identical testosterone?**

Yes. This is the safest form for you and it actually improves your immune system so that you can fight abnormal cells so they don't grow, but instead are destroyed by T-killer cells.

**What can I do about the belly fat that started to increase after I turned 40?**

You should begin by taking non-oral estradiol and testosterone in the form of bio identical hormones which assists in bringing the level of estrone back to young, healthy levels. Low estrone decreases belly fat.

If you are having trouble losing belly fat and have already accomplished the above, then take DIM ES 250 mg per day with food, take iodoral (iodine to bump your thyroid activity), eat 6 small meals each day with high protein and low carb, exercise with interval training, and always work out your abs by doing sit-ups and core exercises.

**Under what circumstances would I have to stop hormone replacement therapy?**

About 5% of our patients are not “cured” of the problems they wanted to treat. Sometimes, this is because the injections are causing an effect that does not fit their lifestyle, such as a libido when they are unmarried or feel they are too old to engage in intercourse.

In some cases, women will not experience healing as quickly as they would like. Patients with chronic fatigue are helped by testosterone replacement, but they don't feel the resolution of symptoms as quickly as women who do not have that illness. Women who have psychiatric illnesses and are on multiple medications may not feel as healthy as women who do not have those illnesses. Lastly, if a patient develops breast cancer, then the estrogen is not continued, although the testosterone is safe to continue.

**What if my genetics make me prone to convert testosterone into estrone?**

We use a drug called Arimidex which blocks the enzyme that converts testosterone to estrogens (Aromatase Inhibitor). It is used “off label” for this indication, however it is indicated for prevention and treatment of breast cancer. We prescribe it orally. DIM is a supplement that is weaker than the prescription arimidex. However, it works very well for most women.

**Will I grow unwanted hair from the testosterone?**

Testosterone will not cause any more facial hair growth than what you had when you were in your 30's. There is also less of a chance of excess hair growth with natural testosterone than with synthetic hormones.