BHRT Fact Sheet:

1. How do you determine if someone is a candidate for pellets:

Prior to making your appointment, our office will send you a lab slip to evaluate your hormone levels. Once this panel is completed, one of our medical providers will review the results and an appointment for consultation and possible pelleting can be scheduled.

1. Does blood work need to be completed prior to every implant appointment?

After your initial appointment, another set of labs will be repeated to ensure your hormone levels are therapeutic and the dosing was correct. This is completed 4 weeks after initial implant for males, and 6 weeks after initial implant for females. Lab work is then repeated ANNUALLY, unless more in depth monitoring is required on a case-by-case basis.

1. How long do pellets last for males and females?

Pellets absorb based on cardiac output (the amount of blood the heart pumps through the body in a minute). Each individual is different dependent on activity level, etc. Typically younger individuals that are competitive athletes with consume pellets at a faster rate.

For male patients, hormone pellets typically lasts 4 to 6 months.

For female patients, hormone pellets typically lasts 3 to 5 months.

1. How are pellets implanted, and where?

Pellets are placed in the upper buttock area, just below the belt line, and the left and right sides are alternated each time. Numbing medicine is used, a small incision is made, and hormone pellets are placed in the fat tissue using a trocar. The insertion procedure is well tolerated. Typically after the numbing shot, only mild pressure may be felt.

1. How big are pellets?

Size varies based on which hormone dose you are receiving, however, pellets are about the size of a grain of rice.

1. What are pellets made from?

Testosterone is made from wild yam, and Estradiol is made from soy. Both of these plants have the highest concentration of hormone of any other substance. If you have an allergy to yam or soy, you are still a candidate for bioidentical pellet placement, as all allergens are removed. Once the hormone pellet is made, it no longer consists of yam or soy.

1. What does it mean that pellets are “bioidentical”

The term bioidentical means the hormone is identical in molecular structure to human hormone. They are created to mimic the hormones naturally produced by your body.

1. What does it cost for hormone replacement?

The initial appointment consultation fee is $150. This is a one-time fee. For females the implant fee is $350 and for males the implant fee is $750. Males typically get 10x the amount of hormone as females, creating the difference in cost.

1. How do you transition from other forms of hormone (ie: patches, pills, creams, and injections)?

Your medical provider will have you continue your former method of hormone replacement through your pelleting appointment. Three days after pellets are placed, all previous methods can be discontinued. The exception is a birth control pill. If this is taken as a means for contraception, then it should be continued, as pellets do not provide contraception. If this is taken for hormone replacement to mitigate symptoms, then it can be discontinued.

1. How long should pellets be continued after replacement is started?

Bioidentical hormone replacement should be continued as long as you want symptom relief. Pellets, or any other method of BHRT, do not increase or “rev up” your body’s own production of hormone. As we age, hormones continue to naturally decline, so replacement will be necessary as long as an individual would like to continue them. If hormones are discontinued, your levels will return to your baseline.

1. Can professionally competing athletes get testosterone replacement therapy?

If competing on a professional level, it is not recommended. Although a metabolite cannot be detected in blood, the testosterone level “above normal” may be viewed as a performance enhancing drug and the athlete may therefore be penalized.

1. Are there any side effects to hormone replacement?

The side effects that can occur are typically present after the first dose of hormone. Any side effect that does occur is treatable, and there have been no serious side effects reported. Potential side effects will be discussed in-depth during your consultation appointment.

1. FDA approval

Bioidentical hormone replacement is not currently FDA approved, however the pellets provided to us come from a strict FDA regulated pharmacy. This means that the hormone and all ingredients or components will undergo testing to ensure quality, potency, and dosage.

1. Covered by Insurance

Bioidentical hormone replacement is not currently covered by insurance, as it is considered an elective therapy. The procedure itself is not covered under insurance, however most insurances will cover the lab work needed for correct dosing. This depends on your insurance plan and lab benefit.

**Male Specific:**

1. Is there a difference in how males will feel on testosterone pellets if they have been previously using testosterone injections?

When a male is transitioning from testosterone injections to testosterone pellets, it is important to know the longevity of each method. There is a rapid rise and fall in testosterone levels when the injection form is used. This is why most men inject 1-2x/week. Pellet absorption raises testosterone levels quickly and degrades levels at a slower rate over the next several months (maintaining testosterone levels between 900-1300). For this reason, some men may think the “testosterone isn’t working” because they have been accustomed to the rapid increase (unnecessary testosterone levels over 3,000) and decline (testosterone levels in the 100-300 range) with testosterone injections. It is also important to know that the maintenance of the testosterone (levels between 900-1300) have been shown to provide all the protective benefits bioidentical hormones offer.

1. Most Common Symptoms relieved by Testosterone replacement

There are many symptoms testosterone can improve, however, symptom relief is individualized. With testosterone replacement, many find improvement in: fatigue, sleep, night sweats, mood, libido, muscle mass, weight loss over time, joint pain, and mental clarity.

1. History of Prostate Cancer

You may still be a candidate for bioidentical testosterone replacement after a prostate cancer has been treated. If this is in your past medical history, please let your medical provider know and they will give you all treatment options depending on your case.

**Female Specific:**

1. History of Breast Cancer

In most cases, if there is a history of breast cancer, especially an estrogen receptor positive breast cancer, estrogen replacement in any form is contraindicated. However, testosterone replacement is typically possible. A specific testosterone pellet can be made that contains an estrogen blocking medication to prevent the conversion of testosterone to estrogen. If breast cancer is in your history, your medical provider will give you all options depending on your case.

1. Most common Symptoms relieved by Estradiol Replacement

The two most common symptoms relieved by estradiol replacement are vaginal dryness and hot flashes. Estrogen is also a collagen-producing hormone, so replacement may help with skin elasticity.

1. Most Common Symptoms relieved by Testosterone replacement

There are many symptoms testosterone can improve, however, symptom relief is individualized. With testosterone replacement, many find improvement in: fatigue, sleep, night sweats, mood, libido, muscle mass, weight loss over time, joint pain, and mental clarity.

**Most common Side Effects and how they are treated for males and females:**

* Increase in Hemoglobin and Hematocrit (red cells), can this cause blood clots or strokes? Do you need to donate blood when on Testosterone therapy?
	+ Increase in red blood cells (ie: **erythrocytosis**) most commonly occurs in male patients, as testosterone levels are 10x that of female patients. Donating blood will decrease blood counts, however it is not necessary in the majority of cases. Testosterone replacement can cause an increase in red blood cells ONLY which is harmless and does not affect platelets, thus you are NOT at increased risk of blood clots, heart attacks, or stroke due to testosterone. Blood donation is therefore not necessary for patients undergoing testosterone replacement therapy. Keep in mind, when we are in high altitude places (such as Lake Tahoe around 6000 ft), our red cells increase to increase oxygen carrying capacity. People that live at altitude do not need to be phlebotomized simply because their red cells have increased. The same is true in Testosterone replacement.

Patients that have a medical necessity of phlebotomy (drawing off blood) typically have a blood disease called **polycythemia vera**, in which **all** blood cells (white cells, red cells, and platelets) increase in harmful ways. This can lead to heart attack, stroke, and blood clots due to the platelet increase in these patients. Polycythemia Vera patients are frequently phlebotomized to decrease platelet counts to decrease their risk of heart attack stroke and blood clots.

* Breast/Nipple Sensitivity
	+ This is typically due to Estrogen in male and female patients. If a female is post-menopausal and her body has not “seen” estrogen in a while, once the hormone is given, nipple and/or breast sensitivity can occur. The length of sensitivity can be different for each individual, and we mitigate this side effect in the future by decreasing the estrogen dose. In the meantime, Evening Primrose Oil (an over the counter capsule) 2-3 capsules daily until symptom resolves can help with sensitivity due to estrogen. If this occurs in a male patient, it typically means they are converting too much testosterone to too much estrogen due to the aromatase enzyme. All male patients are placed on a natural supplement called DIM which helps with estrogen metabolism, but this may not be enough in some individuals. We check estrogen in men after testosterone is optimized to also be sure the level is in a specific range. A medication called Arimidex will be called in for those individuals who’s estrogen is too high, or those experiencing nipple sensitivity.

* Breakthrough Bleeding
	+ There can be many causes of breakthrough bleeding while on hormone replacement. The most common issue is due to the imbalance of estrogen and progesterone, which can affect the uterine lining. Typically an increase in the dose of oral Progesterone will resolve the bleeding, however if this side effect does occur, it is best to call your medical provider and a specific treatment plan will be advised at that time.
* Acne
	+ In some cases, patients have experienced acne with testosterone replacement, especially in those patients that are acne prone, or have a history of acne. Testosterone can increase oil in the skin, which can be problematic for those who are prone to acne in the first place. A conservative dose of testosterone will be given in those who have this history, however an oral antibiotic can be prescribed if acne becomes an issue to help decrease bacterial counts in the skin.
* Facial Hair
	+ In women, facial hair can occur after replacement with testosterone, particularly in those who are prone to facial hair prior to hormone replacement. Those with a history of facial hair will be given a conservative dose of testosterone. If facial hair does occur, many treatments can be done to mitigate this side effect. First, the testosterone dose can be decreased at subsequent visits, as the lower the blood level, the less chance you have of this occurring. A medication can be prescribed in some cases, called Spironolactone, which can help with facial hair and acne due to hormones. Last, we offer laser hair removal if the patient does not want a dose adjustment. This hair responds well to laser, as it is typically pigmented.

* Fluid Retention/Edema
	+ This is most common after the first insertion when the body is getting used to the new Testosterone dose. A diuretic medication (typically Maxzide) can be prescribed to mitigate this symptom. This will only need to be taken as needed if swelling does occur.
* Mood swings/Irritability
	+ This can occur after the first insertion in the 4-6 week period when the hormone levels are fluctuating. Once the blood level of hormone peaks and plateaus, mood tends to stabilize and usually improves for a majority of individuals.
* Pellet surgical site issues
	+ There are many issues that can occur with any surgical site, so if any questions or concerns arise during your treatment, it is best to call your medical provider. The most common issue is called extrusion, where the pellet that was placed works its way out of the skin through the incision site. This is uncommon due to the Virden Method of implantation, however a sterile pellet will be replaced if one is lost.