

### WHAT ARE PELLETS?

The most common pellets are made up of either estradiol or testosterone. The hormones, estradiol or testosterone, are pressed or fused into very small solid cylinders. These pellets are larger than a grain of rice and smaller than a 'Tic Tac'. In the United States, pellets are made by a licensed compounding pharmacist and delivered in sterile glass vials.

### HOW DO I KNOW IF I AM A CANDIDATE FOR PELLETS?

Some of the symptoms you might experience include excessive weight gain, low libido or sex drive, mood swings, insomnia or trouble sleeping, depression, and or irritability. If you are experiencing any of these symptoms, you could be a candidate for BHRT pellet therapy.

### WHY ARE PELLETS OPTIMAL FOR HORMONE REPLACEMENT?

Pellets deliver consistent, healthy levels of hormones for 3-6 months, depending on the dosage. They avoid the fluctuations, or ups and downs, of hormone levels seen with every other method of delivery. It is the fluctuations in hormones that causes many of the unwanted side effects and symptoms a patient experiences. 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, improved libido, sexual response and performance. Even patients who have failed other types of hormone therapy have a very high success rate with pellets. In addition, there is no other method of hormone delivery that is as convenient for the patient as pellets.

### WHERE WERE PELLETS FIRST USED FOR HORMONAL REPLACEMENT?

Pellets have been used in both men and women since the late 1920's. In fact, there is more data to support the use of pellets than any other method of delivery of hormones. Pellets are not patented and not marketed in the United States. They are frequently used in Europe and Australia where pharmaceutical companies produce pellets. Most of the research on pellets is out of England and Australia with some from Germany and the Netherlands. Pellets were frequently used in the United States from about 1940 through the early 80's, when patented estrogen was marketed to the public. In fact, some of the most exciting data on hormone implants in breast cancer patients is out of the United States. Even in the United States, there are clinics that specialize in the use of pellets for hormone therapy.

### HOW AND WHERE DO YOU INSERT PELLETS?

The insertion of pellets is a simple, relatively painless procedure done under local anesthesia. The pellets are usually inserted in the hip through a small incision which is taped closed. Experience of the health care professional counts; not only in placing the pellets but in determining the correct dosage of hormones to be used.

### WHAT ARE POTENTIAL COMPLICATIONS FROM INSERTING HORMONE PELLETS?

Complications from the insertion of pellets include minor bleeding, bruising, discoloration of the skin, infection, and possible extrusion of the pellet. Other than slight bruising or discoloration of the skin these complications are very rare. Extended exposure to moisture (swimming, hot tubs, bathtubs) is avoided for 4 to 5 days, and vigorous physical activity is avoided for 48 hours in women and up to 5 to 7 days in men.

### WHAT CAN I EXPECT AFTER PELLET INSERTION?

After pellets are inserted, patients may notice that they have more energy, sleep better and feel happier. Muscle mass and bone density will increase while fatty tissue decreases. Patients may notice increased strength, coordination and physical performance. They may see an improvement in skin tone and hair texture. Concentration and memory may improve as will overall physical and sexual health.

## DO PELLETS HAVE THE SAME DANGER OF BREAST CANCER AS OTHER FORMS OF HORMONE REPLACEMENT?

Pellets do not have the same risk of breast cancer as high doses of oral estrogens, like Premarin, that do not maintain the correct estrogen ratio or hormone metabolites. Nor, do they increase the risk of breast cancer like the synthetic, chemical progestins used in the Women's Health Initiative Trial. In fact, data supports that balanced hormones are breast protective.

## WHAT ARE THE MOST COMMON SIDE EFFECTS WHEN THE PELLETS ARE FIRST INSERTED?

When a patient first starts hormone therapy, there may be mild, temporary breast tenderness, which gets better on its own. Hormone receptors may be very sensitive and take time to adjust. There may be a temporary water weight gain which will also resolve on its own. The body will tone up, as bone density and muscle mass increase and fatty tissue decreases. Patients may experience a mild form of "puberty" as their hormonal levels come up into normal ranges.

## HOW SOON WILL I FEEL THE EFFECTS OF THE PELLETS?

Some patients begin to "feel better" within 24-48 hours while others may take a week or two to notice a difference.

## HOW LONG DO THE PELLETS LAST?

The pellets usually last between 3 and 5 months in women and 5-6 months in men. High levels of stress, physical activity, some medications and lack of sleep may increase the rate at which the pellets absorb and may require that pellets be inserted sooner in some patients.

## DO THE PELLETS NEED TO BE REMOVED?

The pellets do not need to be removed. They completely dissolve on their own.

## DO MEN NEED HORMONE REPLACEMENT?

Testosterone levels begin to decline in men beginning in their 30's. Most men maintain adequate levels of testosterone into their mid-40's to mid-50's, some into their late 70's early 80's. Men should be tested when they begin to show signs of testosterone deficiency. Even men in their 30's can be testosterone deficient and show signs of bone loss. Most men need to be tested around 50 years of age. It is never too late to benefit from hormone therapy.

## DO PATIENTS NEED PROGESTERONE WHEN THEY USE THE PELLETS?

Any time estradiol is prescribed, progesterone is also prescribed. There are progesterone (not progestin) receptors in the bone, brain, heart, breast and uterus. Progesterone can be used as a topical cream, a vaginal cream, oral capsule, or sublingual drops or capsules. If a patient is pre-menopausal, she uses the progesterone the last two weeks of the menstrual cycle.

## HOW ARE THE HORMONES MONITORED DURING THERAPY?

Hormone levels will be drawn and evaluated before therapy is started. This will include an FSH, estradiol, testosterone and free testosterone for women. Men need a PSA, estradiol, free estradiol and testosterone prior to therapy. Levels will be reevaluated during hormone therapy at 4-6 weeks and again in 3-5 months. After the first years of therapy hormone levels are followed less frequently. The PSA in men is followed every 6-12 months.

## WHAT IS THE COST FOR PELLETS?

The cost will vary depending on the dose of the hormones. Men typically need a much larger dose of testosterone than women so the cost is higher. Please ask your clinic for pricing.

## HOW DO I GET STARTED?

Once your initial consultation is complete, the provider will review your symptoms and blood labs to determine if you are a candidate for pellet therapy. The initial insertion appointment can be scheduled at that time.