

Bio-identical Hormones

Bio-identical hormones are a popular choice because they have a lower side-effect profile than synthetic hormones and initial data seems to indicate they're safer, as well. The question then is how to deliver them to the body. Compounding pharmacies now provide us with multiple delivery choices.

- Pellets
- Sublingual drops
- Troches
- Transdermal creams
- Injections
- Oral capsules

Each system has its advantages and disadvantages.

Pellets – The healthcare provider implants hormone pellets under the skin of the buttock or lower abdomen. Pellets offer some unique advantages, especially for women. The big advantage pellets offer is slow release that's somewhat tied to activity. The more muscle movement the higher the blood flow and circulation around the pellets. This causes an increase in hormones when you're active and a smaller amount when sleeping or sedentary. This slow release reduces side effects and allows much higher doses of testosterone (the sex drive hormone) in women without causing the side effects the same dose delivers by any other means. The most complaints about side effects of testosterone in women are hair growth and acne. These side effects are very rare when pellets deliver testosterone. These side effects are very rare when pellets deliver the testosterone.

When it comes to improving libido, no other delivery method works nearly as well as pellets. Testosterone also provides more energy, improved cognitive function, and drive. Hormone pellets last between three to six months with a gradual

falloff in hormone levels as time goes on. We insert pellets using a small trochar under local anesthesia. The entire procedure takes less than 15 minutes.

If the doctor excludes estrogen, it will eliminate most of the side effects attributed to hormone replacement therapy. Testosterone actually works better than estrogen for controlling hot flashes because a woman's body can convert testosterone to estrogen as needed in just the right amount, not too little or too much. There are a number of advantages to using testosterone rather than a combination of testosterone and estrogen:

- No excess stimulation of breast tissue
- No problems with break-through bleeding
- No irritability
- Higher energy
- Better cognitive function

Sublingal drops – The chief advantage of sublingal (under the tongue) drops is that the dose is easily adjustable, as needed. Doctors usually give the hormones individually until they find the best dose combination, which is generally the one that makes the woman feel the best. Once the doctor determines the best combination of hormones, that mix combines into a single formula and is the dosage from that point on. Sublingal drops and troches both cause spikes in hormone levels.

Troches – Troches are slowly dissolving lozenges that melt between the cheek and gum. They work like sublingal drops.

Transdermal creams – Creams are convenient to apply and provide a slower, more sustained release of hormones. When the dose is right, they're very effective. The problem with creams is that if the patient applies them in the same place every

day, hormone levels can reach very high levels. Transdermal creams work by loading receptors in the skin, which, in turn, release the hormones throughout the day. Problems can arise if the hormones oversaturate the receptor, then, having no place to park, the hormones flood into the system.

Injections – Injections work well for men getting testosterone but generally don't work for women. Testosterone injections given weekly in a slow-releasing oil can raise testosterone levels significantly. The main disadvantage is you have to get an injection into the muscle once every week to 10 days.

Oral capsules – Capsules only work for certain hormones. Estrogen and progesterone pills are very effective, but the liver neutralizes 80 to 90 percent of hormones given orally on the first pass through the liver. The liver then excretes the byproducts or changes them into other substances, which can have a variety of (frequently negative) effects on the body. Testosterone is ineffective when given orally.

General caveats

- Use the lowest dose that controls symptoms (especially with estrogen).
- Select the delivery form that is most compatible with your lifestyle.