

**HormoneSynergy®**  
**Laurelhurst Integrative Health, LLC**  
2705 E. Burnside, Suite 206  
Portland, OR 97215  
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www.hormonesynergy.com

## **Bioidentical Hormone Options**

The purpose of this handout is to explain your bioidentical hormone replacement therapy (BHRT) options. Please note that not all women choose or need hormone replacement. Also, remember that BHRT is the 8th step in achieving HormoneSynergy – these steps form the foundation for healthy aging. For a thorough explanation of the steps, please read my book, *HormoneSynergy: Optimal Aging & Hormone Balance*. Briefly, the steps are listed here:

### **The 8 Steps for Achieving HormoneSynergy:**

1. Decrease stress
2. Eat a healthy diet & keep your blood sugar balanced
3. Exercise
4. Sleep well & enough
5. Avoid toxins and do a yearly detox
6. Maintain a healthy weight, including muscle and fat percentages
7. Supplements: multi-vitamin & mineral, antioxidants including CoQ10, vitamin D, resveratrol, and fish oil
8. Bioidentical hormone replacement therapy, weighing your individual risks and benefits

### **What to expect at your next appointment:**

During your next appointment, I'll review your lab results and answer questions. We'll discuss the above steps & your BHRT options, and we'll form your treatment plan. In addition, I'll write your BHRT prescription or implant your pellet(s). Please note that we only have 30 minutes to cover all of this. **If you have not read and signed this handout, you may need to return for another appointment to receive treatment.** Please read this handout and write down your questions before your next appointment.

### **About bioidentical hormone replacement therapy (BHRT)**

Humans are a unique species when it comes to the fact that we live much of our lives outside our reproductive years. Most animals in the wild do not live beyond their ability to reproduce – many don't even live beyond puberty. Our increased life expectancy is relatively recent – only women and men in the past couple of generations have had a life expectancy beyond 50 years. There is certainly much controversy about whether or not it's appropriate to restore hormones to youthful levels as people age. Some women use BHRT for symptom management alone; some use BHRT to age optimally and possibly prevent chronic diseases (such as dementia, heart disease, diabetes, and some forms of cancer).

Bioidentical hormone replacement has been shown to help with the following concerns:

- Menstrual irregularities
- Hot flashes
- Heart palpitations
- Night sweats
- Headaches

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- Poor sleep
- Irritability
- Mood swings
- Foggy thinking
- Decreased concentration or focus
- Blunted motivation
- Memory problems
- Depression or anxiety
- Vaginal dryness
- Painful intercourse
- Urinary tract infections
- Breast tenderness
- Thinning skin and wrinkles
- Joint stiffness or pain
- Fat accumulation
- Loss of muscle tone, mass, and strength
- Bone loss
- Hair loss
- Fatigue

This section will discuss what bioidentical hormones are and your options. Information about safety and research can be found in my book, at [www.hormonesynergy.com](http://www.hormonesynergy.com), and in the waiting room. If you'd like a copy of the available research on BHRT, please let the receptionist know and one will be emailed to you. Also, please read my "BHRT Position Paper".

In this handout, the term "bioidentical" refers to the molecular structure of a hormone – this is not the same as the term "natural". For example, Premarin®, which comes from pregnant mare's urine, could be considered "natural"; however, it is not structurally identical to human estrogen (although it would be bioidentical if you were a pregnant horse!) The same is true for Provera®, a synthetic progestin that has been shown to have significant detrimental health effects. When the term bioidentical hormone replacement therapy or BHRT is used in this section, it refers to human-identical hormones.

There are many options for supplementing with bioidentical estradiol, progesterone, and testosterone. In addition, there are options for replacing thyroid hormone, DHEA, and cortisol, if needed. **Finding the optimal dosages of bioidentical hormones for your body may take some time and adjustments. This may require laboratory testing or several office visits.** Once your bioidentical hormone treatment regimen is decided, you will be required to come in once a year to discuss your current health status, make sure dosages are still optimal, and review any new research findings that may impact your health.

### **Bioidentical estrogen options**

Not all women need estrogen replacement therapy. Some women age gracefully by following the previous 7 steps to achieving HormoneSynergy, and some women need only progesterone, DHEA, or testosterone supplementation to feel their best.

Options for bioidentical estrogen replacement includes oral capsules or tablets, transdermal (through the skin) patches, sublingual troches (lozenges), topical or intravaginal creams, or estradiol pellet implants. There are pros and cons to each delivery method.

Oral estrogens can be effective at managing symptoms but they also increase the risk for blood clots – this is true for oral synthetic as well as bioidentical estrogens. In addition, oral estradiol promotes a ratio of estrogens (estrone > estradiol) that is not the same as the body makes prior to menopause – premenopausal women have a ratio of estradiol to estrone of 2-to-1.

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Therefore, oral estrogen replacement should be used as a last resort since other equally effective, safer modes of delivery are available.

Sublingual troches or lozenges can be made by a compounding pharmacy and dissolved under the tongue to provide quick relief. Women with occasional hot flashes or menstrual migraines often benefit from this mode of delivery. Unless taken frequently, however, troches may not be the most effective way to deliver steady levels of estradiol. In addition, some of the estradiol in the troche does get swallowed.

Transdermal patches (similar to a band-aid or “film” applied to the buttocks, belly, or hip area) can provide low-dose, steady delivery of bioidentical estradiol without increased risk of blood clots seen with oral preparations. Occasionally, women may have skin irritation from patches, although the twice-a-week, smaller patch tends to be well-tolerated. If you use a patch, it should only contain estradiol since combination patches contain synthetic progestins.

Vaginal administration of hormones can be effective since the vaginal mucosa is very good at absorbing fat-soluble hormones. Intravaginal estrogen preparations can resolve vaginal dryness and urinary incontinence, as well as other estrogen-deficiency symptoms, and are likely the safest form of estrogen replacement. Estriol, a weak estrogen, is quite effective at treating vaginal dryness, and can safely be used in breast cancer survivors. There are pharmaceutical, bioidentical intravaginal estradiol preparations. In addition, vaginal creams can be compounded to individualized dosages and concentrations. Compounding can allow for more concentrated cream; therefore, less cream can be used to prevent it from being messy.

Topical estrogen creams and gels are available as pharmaceuticals or can be compounded to individualized dosages. Estrogen creams or gels may rub off on spouses, other family members, and even pets, and are usually given at much higher dosages than transdermal patches. Sometimes topical estrogens can cause fluctuating levels due to variations in absorption. Topical estrogen creams or gels can be used if intravaginal or patch estrogens aren't effective, or if a woman doesn't want to use vaginal administration or patches.

Subcutaneous pellet implants can be a very effective, hassle-free way to supplement estradiol. Pellets are implanted in the fat tissue of the hip or abdomen, last 4-6 months, and result in a steady-state delivery of hormone. Estradiol pellets are sometimes the most effective mode of delivery for women with significant depression or sleep problems. However, women who still have a uterus are more likely to experience bleeding with estradiol pellets than with other forms of estrogen replacement.

The goal for most women using estrogen replacement is to provide symptoms relief, promote brain, bone, and cardiovascular protection, and keep skin and vaginal tissue healthy. This can nearly always be accomplished without monthly bleeding. It's important to note that **any bleeding in menopausal women may be a sign of a uterine problem, including uterine cancer**. All forms of estrogen supplementation may cause bleeding. If you experience bleeding while using estrogen, you may be required to have a transvaginal ultrasound and endometrial biopsy to make sure you don't have uterine cancer. The primary cause of uterine bleeding is

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inadequate use of progesterone. This is because estrogen stimulates the uterine lining to grow and progesterone protects it from growing too thick.

### **Bioidentical progesterone options**

Bioidentical progesterone is not the same as synthetic progestins (such as Provera). Bioidentical progesterone can be taken orally, topically, or intravaginally. If you still have a uterus and you use estrogen, you must use progesterone at least 12-14 days per month to prevent uterine cancer.

Oral progesterone can be taken as a pharmaceutical (Prometrium), which is micronized progesterone in peanut oil, or it can be compounded to individualized dosages in a sustained-release format. Bioidentical oral progesterone does not increase the risk for blood clots. It can be a good choice for women who have sleep problems or experience anxiety since one of the metabolites of oral progesterone (5-allopregnanolone) binds to GABA receptors in the brain (GABA is a calming neurotransmitter).

Topical or intravaginal progesterone creams can be compounded in a hypo-allergenic base. In some women, progesterone supplementation helps with menopausal symptoms without the need for estrogen. Topical progesterone is not the best choice if a woman uses estrogen since studies showing it protects the uterus are limited. Vaginal progesterone has been shown to be effective in protecting the uterus in women on estrogen replacement.

Topical or vaginal progesterone cream can be very effective at managing PMS, fibrocystic breast changes and breast tenderness, and menstrual cramps. Do not use progesterone every day if you're still having periods.

### **Bioidentical testosterone options**

The only FDA-approved testosterone supplementation option currently approved for women in the U.S. is synthetic, methyl-testosterone. This form of testosterone has been taken off the market for men since it increases the risk for hepatitis and liver cancer. Unfortunately, methyl-testosterone is still given to women in Syntest® and Estratest®. Since there is no bioidentical pharmaceutical testosterone for women, all forms of bioidentical testosterone must be individually compounded. Compounding pharmacists use FDA-approved testosterone to make individual preparations of topical creams or gels and subcutaneous pellet implants. Oral testosterone is never a good option since it may cause liver problems and other forms of testosterone are safer and more effective.

Supplementing with bioidentical testosterone has been shown to offer many benefits for women including enhancing libido, increasing a sense of well-being, and improving the health of the heart and blood vessels. Testosterone also promotes lean body mass, decreasing fat and increasing muscle mass and bone strength. Testosterone supplementation may also prevent dementia and Alzheimer's (more research is needed in this area).

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Testosterone creams or gels can be applied topically or intravaginally. The same cons apply to topical testosterone as to topical estrogen – i.e., possible transference to family members and variable absorption. Do not apply testosterone cream to the face since it may cause acne or facial hair. Vaginal testosterone cream is much better absorbed than topical. It usually needs to be applied 5-7 times per week to be effective.

Testosterone pellet implants are the most effective form of testosterone supplementation for women (and men) and they're hassle-free (once implanted, they last 4-6 months). Testosterone pellets are implanted 2-3 times a year in the upper outer quadrant of the buttocks or the abdomen. Pellets provide steady levels of testosterone and may be effective at managing nearly all menopausal symptoms (without the use of estrogen).

Many people (as well as doctors) haven't heard of pellets for testosterone supplementation. This is likely due to the fact that most continuing medical education for doctors is funded by drug companies. Since pellet implants are relatively inexpensive and are compounded, there is no incentive for drug companies to teach doctors how to use them. Fortunately this is changing since there are a few physicians who now teach their colleagues how to use pellet implants in patients. In addition, the pharmaceutical testosterone pellet (Testopel®) is available for men. For more information about pellets, please see the "Pellet FAQ" handout.

**I have read this handout thoroughly and am aware of my options for BHRT, as well as my option not to use any hormone replacement. I have also reviewed the Hormones & Breast Cancer Risk handout, the BHRT Position Paper, and the Pellet FAQ handout. I understand that Dr. Retzler will discuss my personal risks and benefits of BHRT during my appointment, and that I can ask questions about my treatment during my appointment.**

**Signed:** \_\_\_\_\_ **Date:** \_\_\_\_\_