

Hormone Replacement

Certainly there must exist several questions about hormone replacement. Patients must be only more confused about safety and proper use of this therapy.

Frequently Asked Questions About Hormone Replacement

Why is hormone replacement done?

As we age, it is known that our bodies' natural hormone levels decline. This decline can lead to symptoms such as hot flashes, insomnia, weakness, and fatigue; each which is often improved when additional hormone is given.

What about all the bad press regarding hormone therapy?

A large study recently looked at the use of female hormone replacement for women **without** symptoms to see if therapy would help prevent chronic diseases such as heart disease. The study also evaluated any increased risk of stroke and breast cancer. This study showed that synthetic hormones do not really protect against heart disease as we once thought. Remember that this study looked at women without regard to symptoms.

What options exist for patients who have symptoms in regards to menopause?

Hormone replacement therapy remains an option. Physicians constantly work to implement good data and re-educate what is shown in the lay press. If a patient has symptoms that are so significant to not sleep at all or cause constant agitation, hormone therapy should at least be considered. I believe that feeling miserable each day offers no advantage to utilizing a therapy even if it contains certain risks.

What about "natural" hormones?

This group of hormones, often called natural or bioidentical hormones, is derived from plants and are made to mimic the body's own hormones. Typically, the estrogen component has two or three fractions: estradiol, estriol, and estrone (when used). Progesterone, when needed, is also supplied to mimic the natural levels.

What are the effects of bioidentical hormones?

The effects can be very beneficial. Estrogen is known to help relieve such symptoms as hot flashes, vaginal dryness and painful intercourse. It can also help with osteoporosis and can alleviate urinary symptoms. Progesterone works to keep estrogen levels in balance. It starts to gradually decline in our 30s. Progesterone's main side effect is sleepiness. This is very helpful when a patient is suffering from insomnia.



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What is the science of bioidentical hormone replacement?

Bioidentical hormones are typically given in a tri-estrogen or bi-estrogen formula. This means they include 2 or 3 types of estrogen given at levels determined to mimic the body's normal levels. The three types are estradiol, estrone, and estriol. The first two are considered much more potent and potentially contribute to the negative aspects of hormone replacement if their levels are too high.

Estriol, a weaker, short acting estrogen, has not been incriminated individually as a causative factor in breast cancer and can antagonize the effects of the more potent estrone and estradiol. Estriol is also excreted from the body and cannot be converted to estrone. Studies have also shown lower levels of estriol in women with breast cancer compared to those without. A study in the 1970s showed 37% of the patients with metastatic breast cancer had remission or arrest of their lesions. Estriol also appears to not affect the risk of blood clots. Data varies in regards to heart disease. Data does show that transdermal (rubbed on the skin) estradiol does not worsen blood clotting factors. Trials have shown that estrogen alone could lower bad cholesterol and raise good cholesterol.

Progesterone is traditionally used in hormone replacement for women with an intact uterus (no hysterectomy). In these cases, progesterone prevents the estrogen from overstimulating the uterus cells. Progesterone differs from its synthetic cousin, progestin, in that it is needed to carry a pregnancy to term (synthetic hormones are contraindicated in pregnancy), and is also a precursor to other steroid hormones. The main side effect of progesterone is sleepiness. This is, however, in many cases a benefit. Many patients are suffering from poor sleep, and we can use this property of progesterone to our advantage. Bioidentical progesterone typically lacks the weight gain, fluid retention, breast tenderness, depression, and headache seen with other medications. Bioidentical progesterone has been shown to not offset the good cholesterol benefits seen with estrogen replacement. A small study showed that progesterone and estrogen showed an increase in exercise time on a treadmill before evidence of ischemia (low blood flow to the heart) occurred. A recent drug trial using estrogen and progestin made the news headlines because of increased risk of problems due to ischemia was 50% higher in the drug test group during the first year despite improving the cholesterol of the patients. Bioidentical progesterone was not used, but should be looked at given its properties just mentioned. Another study has shown that progesterone can help or eliminate vasometer symptoms on its own.

Osteoporosis is another major topic that is related to hormone replacement. Progesterone now has some evidence for prevention of osteoporosis. Progesterone is made during the ovulation phase of the menstrual cycle. In a study with women with the most normal ovulations (and therefore made the most progesterone) had the greatest bone density increase. It is still unknown whether progesterone will therefore decrease fracture rates.

What is the safety and cancer risk of these bioidentical hormones?

These hormones have not been studied in large trials similar to the Women's Health Initiative and HERS trials mentioned above. Since these hormones are not patentable, they probably never will be. To put it simply, we cannot guarantee a patient would be cancer free while taking them with the data we have. With estimates of breast cancer affecting 1 in 9 women, it is important that all women work to lower their cancer risk whether they are on hormones or not. We mentioned above that estriol may be protective against breast cancer based on limited studies. Progesterone has been shown to protect against breast cell proliferation (cells moving away from normal) in 2 different studies.