

Estrogens

Active in all tissues. Activity is regulated by binding to a receptor hormone. Different tissues have different receptors which bind to biological estrogens with varying strength, which allows variable activity in different tissues. This accounts for the different biological activities of the different estrogens.

Estrone

This is the strongest estrogen. In a woman's life, estrone is dominant in menopause. Estrone stimulates breast cancer cells and increases the likelihood of clots. Bio-Identical hormone replacement treatment (HRT) prescriptions DO NOT contain Estrone.

Estradiol

This medium potency estrogen is dominant in the menstrual cycle. Many of the benefits of post-menopausal HRT are mediated through estradiol. Hot flashes, night sweats, brain fog, memory and mood disturbances, fatigue and low energy are all improved with treatment. Estradiol use neither raises or lowers a woman's risk of breast cancer or blood clots.

Estriol

This weak estrogen is dominant in pregnancy. In post-menopausal HRT, estriol has all the benefits of estradiol, but requires higher doses, due to its decreased potency. The vaginal lining benefits from estriol use, whether applied directly to the vagina, or used with estradiol elsewhere on the skin (transdermally) as a cream or patch for whole body effects. Blood vessels are stabilized and breast cancer cells are suppressed by estriol.

Transdermal application

Bio-Identical hormone treatments use estrogen applied to the skin (transdermally). Medicines absorbed across the skin have a lesser effect on the liver than those given orally. This further lowers the risk of Bio-Identical HRT.

Progesterone

Progesterone is the dominant female hormone of pregnancy and the second half of a menstruating woman's cycle.

Progesterone used in post-menopausal HRT balances the effect of estrogen on the uterine lining, preventing overgrowth and bleeding. One of the most significant benefits of progesterone is on sleep. A sleepy sensation begins about 30 minutes after taking progesterone, and the quality of sleep is much improved compared to before HRT. This benefit is often seen as early as the first days of treatment.

Oral administration

In the case of progesterone, the oral route is preferred because the liver changes some of the progesterone into pregnenolone. This hormone can cross the blood/brain barrier and causes the sleepy feeling.

Testosterone

Testosterone, which is the dominant male sex hormone, is present in smaller amounts in women prior to menopause.

Testosterone, in women, supports heart function, increases libido, and improves the effects of estrogen in the brain and on the vaginal walls.

Transdermal application

Testosterone is typically mixed with estrogen for transdermal absorption. Oral testosterone is never recommended. Injections and pellets can also be used, but most patients prefer a cream.