

Do Women Need Progesterone after a Hysterectomy?

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To help relieve the symptoms of menopause, women are typically supplemented with estrogen therapy. For a woman who still has her uterus, estrogen therapy alone may cause the lining of the uterus to overgrow (called hyperplasia) and this can even lead to uterine cancer[1].

To balance out this effect of estrogen, progesterone therapy is also given to these women. However, many experts claim that for a woman who has had a hysterectomy, she does not need progesterone therapy in her menopause treatment regimen because she no longer has a uterus and therefore cannot get uterine cancer.

While it is true that a woman cannot experience the ill effects of unbalanced estrogen on a uterus that is no longer present, it does not mean that she is protected from experiencing the effects of unbalanced estrogen elsewhere in her body.

Below are some examples of how progesterone compliments estrogen therapy in other areas of the body:

Kidney

In the kidneys, progesterone causes the body to get rid of sodium by blocking the activity of a chemical called aldosterone, and water follows the sodium out of the bloodstream and into the urine[2]. As such, progesterone acts as a natural diuretic. Estrogen activates the system in the body which releases aldosterone, causing water retention and swelling[3], so progesterone nicely balances this effect of estrogen.

Thyroid

In the endocrine system, progesterone causes an increase in thyroid levels[4], which will cause your body to carry out a more efficient metabolism. By contrast, estrogen increases the amount of thyroxine-binding globulin in the body[5], a protein which binds to thyroid hormone, decreasing the amount of active thyroid for your body to use. This results in decreased metabolism and increased fat storage, so again we see the purpose in balancing estrogen and progesterone in replacement therapy.

Bone

In bone, progesterone stimulates osteoblast activity[6]. Osteoblasts are the cells responsible for bone formation. Estrogen employs a few different mechanisms to inhibit osteoclast activity[7]. Osteoclasts are the cells responsible for absorbing bone back into the body. Here, we see progesterone complementing estrogen to prevent bone loss associated with menopause.

Central Nervous System

In the nervous system, progesterone reduces anxiety by exerting effects on GABA receptors in the brain[8]. When GABA receptors are activated, a sedative effect is produced in the body. The action of progesterone on GABA receptors is helpful in treating sleeplessness as well for this very reason⁷. Estrogen is responsible for forming excitatory pathways in the brain[9], again showing the opposite nature of estrogen's effects on the body compared to progesterone.

What if I'm not on any hormone therapy?

We have established the benefits of balancing estrogen with progesterone therapy whether or not a lady has had a hysterectomy, but what about women not on postmenopausal estrogen therapy at all? Are they in the clear? Not necessarily. Estrogen is produced in fat cells, while progesterone is produced by the ovaries. When a woman experiences menopause (either naturally or by hysterectomy) the body will stop making progesterone, but estrogen will continue to be made by the fat cells. One study even showed that estrogen production increased tenfold over the average in very obese postmenopausal women [10]. For this reason, administration of progesterone only is of use after menopause as a balance to estrogen, particularly in women with excess body fat, even if they are not on any hormone replacement therapy.

Sources:

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