



HORMONE REPLACEMENT THERAPY (HRT)

WHAT IS HORMONE REPLACEMENT THERAPY?

Replacement hormones (estrogen or a combination of estrogen and progestin) have been shown to be effective in relieving conditions usually related to menopause. Hormone replacement therapy supplies the estrogen a woman's body no longer makes. It has been used to relieve symptoms of menopause, such as hot flashes and flushes, sweats, disturbed sleep, and increased rate of bone loss. Today, this term is used to describe treatment with either estrogen alone or with estrogen and another hormone called progestin. These two hormones help regulate a woman's menstrual cycle. Progestin is added to prevent the overgrowth (or hyperplasia) of cells in the lining of the uterus.

WHY DO SOME WOMEN ONLY NEED ESTROGEN?

Estrogen alone, when given to a woman who still has a uterus, has been shown to increase risk for development of endometrial cancer, or cancer of the uterine lining. When progestin is added, this risk is reduced. In fact, the risk of a woman who is taking both estrogen and progestin developing endometrial cancer is lower than for women who are taking no hormone replacement therapy. Therefore, for women with a uterus, both estrogen and progestin is preferable. Progestin can be given either on a daily (continuous) basis or on a cyclic basis (10 to 14 days per month). For women who have had a hysterectomy, there is no need to add progestin. These women simply take estrogen alone.

WHY IS HORMONE REPLACEMENT THERAPY PRESCRIBED?

Basically, there are two reasons to take hormone replacement therapy: (1) to relieve the symptoms of menopause such as hot flashes, night sweats, and vaginal dryness; and, (2) to help protect against osteoporosis, and other conditions such as colon cancer or Alzheimer's disease. Unlike the symptoms of menopause, these conditions don't affect a woman until later in life. Although the effects of bone loss don't generally show-up until later in life, bone loss actually begins in one's 30s. Bone loss speeds up after menopause. In fact, half of all bone loss occurs during the first 3 to 6 years following menopause. Throughout life, we constantly lose and rebuild bone. In women, bones need estrogen to properly absorb calcium, the dietary nutrient that promotes bone formation. Without estrogen, bone is lost faster than it is gained, and can become thin and porous. Exercise and calcium are important for strong bones, but they alone cannot prevent osteoporosis. Small-boned, thin, white women are at the highest risk of developing osteoporosis; but women who experience early menopause (before age 45), smoke cigarettes, have

low calcium intake and a sedentary lifestyle also have increased risk. Hormone replacement therapy can help prevent bone thinning.

CHOICES IN HRT

- **Estrogen Tablets:** used on a variety of schedules; popular brands include Cenestin, Estrace, Estratab, Menest, Ogen, Ortho-Est, and Premarin.
- **Estrogen Transdermal Patches:** (Alora, Climara, Esclim, Estraderm and Vivelle) are applied to the skin twice weekly or weekly.
- **Estrogen Vaginal Creams:** (Estrace, Ortho Dienestrol, and Premarin) are applied with a vaginal applicator several times per week.
- **Vaginal Tablets:** (Vagifem) are slow dissolving, and are placed twice weekly with a slender vaginal applicator.
- **Vaginal Ring:** (Estring) is inserted into the vagina, and replaced every 3 months. Because the ring effectively treat vaginal symptoms while releasing very low amounts of estrogen, some doctors prescribe it for breast cancer survivors who may not be able to use other types of HRT.
- **Progestin Tablets:** include Amern, Aygestin, Cyocrin, Megace, Micronor, Prometrium and Provera.
- **Estrogen/Progestin Combinations:** are available as monthly packages of tablets (Activella, femhrt, Ortho-Prefest, Prempro, and Premphase), and as an estrogen/progestin skin patch (Combipatch).
- **Estrogen/Androgen Combination:** is available as a tablet (Estratest).

THE MANY FORMS OF HRT

METHOD: ORAL ESTROGEN-PROGESTIN COMBINATIONS, EITHER IN CYCLIC OR CONTINUOUS DOSAGES

PROS:

- Short-term use relieves symptoms such as hot flashes, night sweats, vaginal dryness, and sleep interruptions
- May improve mood and psychological well-being
- Long-term use shown to prevent osteoporosis
- Effects on cholesterol suggest that it may protect against heart disease
- Long-term use may prevent colon cancer and Alzheimer's disease, but further study is needed

CONS:

- Can cause vaginal bleeding, bloating, and breast tenderness
- Long term use may increase risk of breast cancer in some patients
- Increases risk of getting blood clots
- Increases risk of developing gallstones

METHOD: ORAL ESTROGEN ONLY

PROS:

- Benefits similar to those listed above
- Estrogen alone may raise breast cancer risk less than estrogen-progestin combined, but further study is needed

CONS:

- Because it raises the risk of endometrial cancer, it is given only to women who have had their uterus removed (hysterectomy)

METHOD: VAGINAL CREAMS, ESTROGEN RING (WHICH RELEASES HORMONE INTO VAGINA OVER 90 DAYS), AND VAGINAL TABLET

PROS:

- All forms relieve vaginal dryness

CONS:

- May not protect as well as oral therapy against osteoporosis and heart disease
- May not relieve hot flashes

METHOD: SKIN PATCHES (SOME FORMULATIONS HAVE ESTROGEN, OTHERS BOTH ESTROGEN AND PROGESTIN)

PROS:

- Benefits are similar to oral therapy, but women who can't tolerate pill forms may be able to tolerate patches.
- Women who have trouble remembering to take pills daily may find weekly patches more convenient.

CONS:

- Appears to protect against osteoporosis as well as oral therapy, but cardiovascular benefits may not be as evident

POTENTIAL SIDE EFFECTS

Some women may have side effects from hormone replacement therapy, such as unwanted vaginal bleeding, headaches, nausea, vaginal discharge, fluid retention, swollen breasts, or weight gain. Other health concerns include: cancer of the uterus when estrogen is taken alone, a potential slight increase in the risk of breast cancer, and abnormal vaginal bleeding.

COUNTERING POSSIBLE HRT SIDE EFFECTS

Side Effect	Strategy
Fluid Retention	Restrict salt intake, maintain adequate water intake, exercise, or try a diuretic
Bloating	Lower the progestogen dose, switch to progesterone or another progestin, or switch to a skin patch
Breast Tenderness	Restrict salt intake, cut down on caffeine and chocolate, lower the estrogen dose, switch to another estrogen, or switch to progesterone or another progestin.
Headaches	Restrict salt, caffeine, and alcohol intake; ensure adequate water intake; lower the dose of estrogen and/or progestogen; or switch to a continuous dosage schedule or a skin patch to avoid hormone fluctuations.
Mood Changes	Restrict salt, caffeine, and alcohol intake; ensure adequate water intake; lower the progestogen dose; switch to progesterone; or change to a continuous-combined HRT regimen to avoid hormone fluctuations.
Nausea	Take oral estrogen tablets with meals, lower the estrogen or progestogen dose, switch to another oral estrogen, or switch to an estrogen patch
Skin Irritation with Patch	Switch to another patch with a different adhesive

UTERINE CANCER RISK

Use of estrogen alone, during or after menopause, has been linked to an increase in endometrial cancer (cancer of the uterus). Obviously, this is possible only if the uterus is in place and the patient has not had a hysterectomy. In women who have a uterus and take both estrogen and progestin therapy together, the risk of cancer of the endometrium (lining of the uterus) is actually reduced when compared to women who have a uterus and who do not take estrogen and progestin therapy together.

BREAST CANCER RISK

A major issue surrounding hormone replacement therapy and estrogen replacement therapy is the influence of estrogen on breast cancer. Researchers believe that the longer a woman is exposed to naturally occurring estrogen, the greater risk of developing breast cancer. It has not been proven, however, that estrogen administered at menopause has the same effect. There is disagreement because of wide variations in the populations studied, as well as the doses, timing, and types of estrogen used. An analysis of previous studies suggests that low-dose estrogen taken on a short-term basis (10 years or less) does not pose increased risk of breast cancer. Long-term use (more than 10 years) at a high dose may significantly increase the risk. By how much is still a matter of heated debate. At the very most, researchers think long-term use could possibly increase the risk of getting breast cancer by 30%. This means that incidence would rise from 10 women per 10,000 each year to 13 women per 10,000 each year.

The WHI is a large-scale study of estrogen and combination estrogen plus progestin as preventive therapies for postmenopausal women, designed to assess the long-term risks and benefits of estrogen replacement therapy (ERT) and combination

HRT. It enrolled 27,000 women between 1993 and 1998, scheduled to conclude in 2005. A total of 16,608 women were randomized to combination HRT and placebo.

The combination HRT arm of the study was discontinued, citing as the main factor an increased risk of invasive breast cancer in the group receiving continuous combined HRT compared with the placebo group after an average follow-up of 5.2 years. This, combined with an increase in cardiovascular events in women and active drug vs. those on placebo that began in the first year and persisted, outweighed the benefits, which included a reduced incidence of colon cancer and hip fractures.

The fear of cancer is one of the most common reasons that women are unwilling to use hormone replacement therapy. Interestingly, actual death rates for breast cancer have not risen at all. This may be because estrogen users have more frequent medical visits and obtain more preventive care including yearly mammograms. The WHI study continues to monitor women who are on estrogen alone and do not take progesterin (progesterone).

While no one can determine who will eventually develop breast cancer, there are certain risk factors you should be aware of when considering hormone replacement therapy. A family history of breast cancer (sister or mother) is probably the most important risk factor of all. You may also be at an increased risk if: you menstruated before age 12; delayed motherhood until later in life; or have a late menopause (after age 50). Also, the older you are, the higher the risk.

To use or not use hormone replacement therapy is a personal decision to be made by each woman with help from her doctor. Regular breast examinations by a health care professional and self-examination are recommended for women receiving estrogen therapy, as they are for all women.

KNOWN BENEFITS OF ESTROGEN REPLACEMENT

Hormone replacement therapy and estrogen replacement therapy:

- Reduce the risk of osteoporosis.
- Relieve hot flashes.
- May improve mood and psychological well being.
- Can have unpleasant side effects, such as bloating or irritability.
- May increase risk of breast cancer; long-term use may pose the greatest risk.

OTHER WAYS TO KEEP HEALTHY DURING MENOPAUSE

Good nutrition including a calcium supplement and regular physical exercise are thought to improve overall health. Evidence is strongly in favor of eating well and exercising to help lower risks for heart disease and osteoporosis. If you smoke, stop!!! This is one of the surest ways to become healthier.

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