



## Hormone Replacement

The decision to start hormone replacement should be considered carefully. The decision should be influenced by your individual risk factors for the following including:

- Vasomotor symptoms such as hot flashes and night sweats
- Psychological symptoms such as mood swings, depression and difficulty sleeping
- Urogenital symptoms including vaginal dryness, pain with intercourse, and incontinence of urine
- Osteoporosis
- Alzheimer's disease
- Colon cancer
- Blindness due to macular degeneration of the retina (the most common cause of blindness in menopausal women)
- Coronary artery disease and increased risk of heart attacks
- Breast cancer and uterine cancer

It is in your best interest to learn as much as possible about hormone replacement in order to decide whether it is appropriate for you. The multiple studies that have been published in recent years often have conflicting information which makes the decision making process much more confusing and difficult. Hormone therapy needs to be evaluated in perspective with the known benefits as well as the risks with regard to each individual patient.

The major benefit of hormone therapy is the prevention of osteoporosis and prevention of the symptoms of menopause. Bone loss, which begins at around age 35, accelerates dramatically at menopause. Hormone therapy's effectiveness in preventing bone loss is firmly established. Studies have confirmed that women who have taken estrogen have significantly less bone loss than women who have not. In addition, for women who already demonstrate bone loss, osteoporosis is halted and may even improve when estrogen therapy is started. Calcium (1000 mg / day) Vitamin D (400 IU – 1000IU/d) and weight-bearing exercise should also be continued. A bone density scan (DXA) should be performed to determine your risk for fracture based on your own bone density.

Hormone therapy can reduce or eliminate hot flashes and night sweats. Mood swings, depression, difficulty sleeping, fatigue and memory loss are also aided by treatment with estrogen. These symptoms occur in 75 percent of women entering menopause and usually improve with estrogen therapy.

Vaginal dryness, decreased muscle tone and painful intercourse can be reduced with hormone replacement. Recurrent bladder infections that occur from abrasions to a dry vagina can also be prevented with estrogen. Skin elasticity does not deteriorate as rapidly and younger appearing skin continues.

Recent studies have shown a reduced risk of colon cancer by 37 - 50% in women who use hormone therapy. It also appears that Alzheimer's disease may have a 50% decrease in incidence in women who use estrogen. Macular degeneration of the retina leading to blindness is significantly reduced in women who use estrogen and dental decay resulting from periodontal disease is also decreased in women on hormone therapy.

Many studies have confirmed the advantages of hormone replacement therapy in improving the quality of life and decreasing osteoporosis. Most women, however, are more concerned about the increased incidence of breast cancer associated with hormone replacement. The Women's Health Initiative (WHI) published in July, 2002 in the Journal of the American Medical Association its findings from the first prospective study of the effects of hormone treatment on chronic disease processes. It found an increased incidence of invasive breast cancer of 26% in women who took both estrogen and progesterone for more than 4 years. Over the 5.2 years of the study, there were 38 cases of invasive breast cancer among HRT users vs. 30 cases among placebo users per 10,000 person-years. A study published in the Lancet in 1997 also demonstrated the increased incidence of breast cancer in women on estrogen therapy. If a woman reaches 70 years of age, she has a 63 / 1000 chance of developing breast cancer. If she has used estrogen for 5 years her chances of developing breast cancer increases to 65 / 1000 and if she uses it for 10 years, her chances of developing breast cancer increased to 69 / 1000. This demonstrates an increased incidence of breast cancer while on hormone treatment. The breast cancer that develops while on estrogen therapy, however, is often of a different type than breast cancer that occurs without estrogen ingestion. It usually has a much better prognosis and cure rate than spontaneous breast cancer in post- menopausal women who have never taken hormone replacement. Women still live longer if they develop breast cancer while on estrogen therapy than if they never took estrogen at all. The reason is unknown.

Estrogen was once thought to be cardioprotective in protecting against heart disease. The WHI study showed an increase in heart attacks among women who were on estrogen and progesterone. It did not appear to change in women who used estrogen without progesterone. The number of heart attacks in the group increased by 29% with 37 rather than 30 events per 10,000 person-years. It is now recommended not to start hormones solely to protect the heart.

Side effects of hormone replacement are different than risks of hormone replacement. Vaginal bleeding is the most common reason for stopping hormone therapy. While bleeding stops after one year for the majority of women, it may continue for many. Altering the way progesterone is given or the type of progesterone is one way to reduce or eliminate bleeding. Many different options are available. Breast tenderness is another unpleasant side effect. Altering the route of estrogen use may decrease this side effect. Some women also complain of headaches, fluid retention, vaginal discharge, depression, or nausea. Studies have confirmed that hormones do not cause weight gain and may help decrease weight gain due to menopause. Changes in the dose, method of administration and schedule of the hormones may decrease these side effects.

If you elect to use estrogen, you and your doctor have many options. Estrogen can be ingested orally, transdermally (through the skin), vaginally or by injection. Most women start with the oral preparations. It is best to start on the lowest dose estrogen that will prevent osteoporosis. This dosage is about 1 / 12th the dose of an oral contraceptive pill. If menopausal symptoms continue, the amount of estrogen is increased until the symptoms resolve. Injections and the patch feed hormones directly into the bloodstream and bypass the liver's metabolism. The patch is more useful in women with significant breast tenderness or hot flashes, which are difficult to control. Creams that are applied to the skin also bypass the liver but cannot be monitored effectively to determine the correct dosage. Vaginal creams (Estrace or Premarin), vaginal tablets (Vagifem) or the vaginal ring (Estring) are usually prescribed to reduce vaginal dryness locally and do not have the same systemic effects as the estrogen pill or the patch. They can usually be used even if oral or transdermal estrogen is contraindicated.

Unopposed estrogen can increase the risk of uterine cancer from 1 / 1000 to 1 / 100. The risk increases with the amount and duration of estrogen use. For this reason, progesterone is usually added to estrogen replacement if the uterus is still present. Adding progesterone has been shown to be protective as it decreases the risk for endometrial cancer for women on HRT as compared to those women who use no

HRT at all. If you take estrogen alone and have not had a hysterectomy, it is important to have a yearly ultrasound, endometrial biopsy or both. Even with combined estrogen and progesterone therapy, any abnormal bleeding should be reported to your physician.

Progesterone is added to estrogen to prevent uterine cancer. Multiple regimens can be recommended. Progesterone can be prescribed in a continuous daily method or a cyclic method. The continuous method may reduce the amount of bleeding that occurs with hormones after an initial 6 - 8 months of irregular bleeding. Cyclic therapy is another way of taking progesterone, which usually results in a predictable withdrawal period. Progesterone in this manner can be prescribed for the first 5, 10, 12 or 14 days of the month depending on the type of progesterone used. Withdrawal bleeding occurs in about 80 percent of women. Topical progesterone creams are available but have not been proven as effective as oral progesterone. If symptoms from progesterone use cannot be tolerated, some women take "unopposed" estrogen. If this is necessary, an annual ultrasound with or without an endometrial biopsy is recommended to make sure that uterine cancer is not developing.

There are alternatives to hormone therapy that may control the various symptoms of menopause. Black cohosh is an herbal supplement that may control hot flashes. Soy products may also control the symptoms, but may also lead to an increased estrogen level. No studies have proven the effectiveness of either therapy. Other medications used for hot flashes include Clonidine (blood pressure medication), Paxil (Serotonin re-uptake inhibitor used for depression) and Benergal.

Recently Raloxifene (Evista) and Alendronate (Fosamax) have been used for the prevention of osteoporosis. Evista does not cause uterine bleeding and may decrease the incidence of breast cancer. The major contraindication is the increased possibility of blood clot and stroke. Fosamax works only on the bones and is taken once per week. Its major side effect is esophageal irritation (tube between the mouth and stomach).

In addition to taking hormone therapy to improve the quality of life after menopause, many other options should be considered. It is important to maintain optimal body weight in the BMI (body mass index) level of 22-23.4. This can be calculated as:  $BMI = (\text{weight (lb)} \times 703) / (\text{height (inches)} \times \text{height (inches)})$

It is recommended that diet should be healthy with at least 5 fruits and vegetables per day. Exercise of both aerobic type and weight bearing type should be accomplished at least 3-4 times per week. Adequate sleep and at least eight glasses of water should be consumed each day. Coffee and alcohol should be limited. Stress and cigarettes should be avoided. Calcium of at least 1000 mg per day should be consumed as well as adequate Vitamin D. Yearly mammograms, monthly self breast exams, and yearly exams with your doctor are extremely important.

Every woman entering menopause should have a discussion about hormone replacement therapy, both the risks and benefits, with her physician. All of the above issues should be considered to determine whether hormone replacement is appropriate.