

## Menopause

Menopause can be a difficult transition in a woman's life. Menopause usually occurs between ages 48 and 52. The onset of hot flashes, mood swings, insomnia, hair loss, uncontrollable weight gain, skin thinning, vaginal dryness, decreased sex drive, fear of osteoporosis, breast cancer and heart disease are all part of American woman's experience.

Menopause is a normal transition experienced by women. However for many women this transition is filled with physical and emotional problems. Why this normal transition is so difficult for many women?

Because this is a transitional stage woman's hormone production can be irregular and imbalanced. This imbalance of hormones can be exaggerated by the American diet, lifestyle and environment.

## Menopause Is Not an Estrogen Deficiency Problem

Menopause occurs when woman permanently stops ovulating, or producing an egg. Menopause is diagnosed when a woman no longer has a monthly cycle for a year and has an elevated level of FSH in the blood. FSH test only confirms that a woman stopped ovulating but does not measure hormone levels. Estrogen comes from variety of sources. Before menopause ovaries are the main source of estrogen. After menopause steroid hormones produced by adrenal glands are converted to estrogens mainly in fatty tissue. A lot of chemicals in the environment (plastics, pesticides, hormones in red meat and chicken) behave as powerful estrogens. With the abundance of sources of estrogen around us and in the body it's unlikely that estrogen deficiency is a problem.

## Saliva Testing

Saliva testing is the most accurate test to determine levels of steroid hormones: estrogens, progesterone, testosterone, DHEA and cortisol. Saliva testing is more accurate and useful than any blood testing when trying to determine who needs hormone supplementation. 99% of hormones in the blood are attached to proteins which makes them not active. Remaining 1% are the free hormones and only free hormones (not attached to protein) are able to leave the bloodstream and enter the tissues of ovaries, uterus, breast and brain.

Levels of free (active) estrogen in the blood may be increased by several factors: increased weight, stress, insulin, diets low in fiber and high in fat. Even small increase in free estrogen can cause symptoms of too much estrogen in the tissues even though the total amount of estrogen in the blood is normal. Exercise, high fiber diet, eating proper fats, eliminating stress and avoiding external estrogens decrease amount of active estrogen in the body. Because there are so many variables it is impossible to know which hormones are active without testing the saliva. Saliva testing is available across the country. Most non-HMO insurance companies including Medicare cover the cost of the testing. If your insurance doesn't pay the cost of the test is approximately \$150 .

## Low Estrogen or Low Progesterone?

During the reproductive years estrogen and progesterone are produced together and function best when they are balanced. Several years before menopause progesterone production starts to decline and ultimately ceases after the menopause. Progesterone cannot be made from other hormones and is not available in the environment in any significant amount. During menopause woman can have normal or elevated tissue levels of estrogen while progesterone level is low or immeasurable.

This **imbalance of hormones** is the cause of most menopausal symptoms, not estrogen deficiency.

## Progesterone

Why is progesterone so important? Progesterone does more than just balance estrogen. Progesterone is vitally important in normal function of several systems in the body. The function of progesterone includes: utilizing fat for energy, decreasing water retention, eliminating depression and anxiety, improving mental function, increasing sex drive, increasing effectiveness of other hormones like thyroid hormones, testosterone and estrogen.

A deficiency of progesterone can explain most of the symptoms of menopause. Hot flashes are a response to the imbalance of estrogen and progesterone. Because we are exposed to estrogens from sources other than the ovaries estrogen levels do not fall in balance with progesterone causing “estrogen dominance” symptoms. Adding progesterone restores balance and safely relieves symptoms. Adding more estrogen may relieve hot flashes but increases the imbalance and can cause side effects like: bleeding, weight gain, increased risk of stroke and breast cancer.

Mood swings are also caused by progesterone deficiency. Progesterone has a calming effect on the brain. It attaches to the same receptor in the brain as Prozac and other antidepressants use to produce their effects. Menopausal women on antidepressants may benefit from progesterone which could eliminate the need for antidepressants and tranquilizers.

Insomnia is another frequent complaint of women during menopause. It's due to lack of the calming effect of progesterone. Replacing progesterone usually improves insomnia.

Many women complain of poor concentration, foggy thinking and memory lapses during menopause. It's because progesterone is necessary for fast and effective conduction of nerve impulses in the brain.

Estrogen without the proper amount of progesterone can interfere with thyroid function. Thyroid hormone is necessary to properly metabolize food and convert it into energy. If thyroid hormone is not functioning properly women experience weight gain, slowing of the metabolism, fatigue and depression. One of the most disturbing symptoms after menopause is loss of scalp hair and growth of facial hair. Testosterone, the male hormone is still produced after the menopause by adrenal glands and the body uses testosterone to balance estrogen in the absence of progesterone. This results in baldness and facial hair growth. Replacing progesterone usually reverses the process and initiates growth of scalp hair and stops facial hair growth.

## Do I need Estrogen?

Menopause cannot be simply explained by lack of estrogen. While estrogen deficiency may play a role in some women, in most cases it does not. What's needed is balance between estrogen and progesterone. Most women in America are above their ideal body weight. It's well documented that overweight women produce too much estrogen. Estrogen causes weight gain and makes it difficult to lose weight. Estrogen is made in fat cells (more fat cells=more estrogen). That's why estrogen-related cancers (breast and uterus) are more common in overweight women. Women who are overweight should not take estrogen unless a saliva test indicates low estrogen levels.

Most women who take estrogen are “assumed” to have estrogen deficiency without having their hormone levels tested and therefore a lot of women who don't need estrogen are given estrogen. Synthetic hormones, i.e. Premarin® (made of pregnant mares urine) and Provera® (altered progesterone molecule which causes side effects not associated with progesterone) are not human or bio-identical hormones. They are usually given in the same dose to everybody without consideration to woman's weight, diet, environmental exposure or actual hormone levels. Bio-identical hormone replacement for men and women must be customized to the individual. Modern techniques of compounding bio-identical hormones allow to customize medications to meet specific patient needs.