



Institute for Women's Health Research

Putting Women's Health First

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Dear Friends,

Last month the Institute for Women's Health Research hosted the Chicago premiere of the film *Hot Flash Havoc*--- a documentary on the current controversies that surround the management of menopause. The film was followed by a prestigious panel of Northwestern experts who helped clarify some of the ongoing debate about hormone use.

Based on the interest in the topic, we are featuring menopause in this e-newsletter. Rather than providing an update on all the new research (which is changing weekly and too extensive for this publication), we are focusing on the factors that make menopause such a complicated issue and why controversy continues. We are also providing a list of credible resources to help you become an informed consumer. After all, each of us bears the ultimate responsibility for our health care decisions. That being said, we also advocate that our medical professionals remain current on the latest research so that they can help guide our way.

As always, we invite your comments on this topic and ideas about other women's health issues that are important to you (instwhr@northwestern.edu).

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AT NORTHWESTERN UNIVERSITY

DEFINING MENOPAUSE

Menopause is a normal passage of a women's life that is part of a biological process that begins when the ovaries gradually produce lower levels of the natural sex hormones: estrogen and progesterone. It begins at the time of a woman's last period and is considered complete when menstruation has stopped for a year. The time when symptoms begin appearing is referred to as perimenopause. The average age of menopause in the U.S. is 51 and it usually occurs between the ages 45 and 55.



There are women who experience premature menopause (< age 40) due to bilateral oophorectomy, chemotherapy, radiation, ovarian ablation or premature ovarian insufficiency (POI) and require specialists to help monitor their long-term health status.

Menopause is **not** a disease but rather a normal life process. The most common symptoms of menopause are:

- Cessation of the menstrual cycle (abnormal or irregular periods generally precede menopause)
- Hot flashes, night sweats
- Alterations in vaginal or bladder tissues (dryness, thinning)
- Changes in sleep patterns, sexual desire and mood
- Physical changes in appearance (less muscle, more fat especially around the waist, achy joints, thinning skin)

These symptoms are not life threatening but they can significantly affect one's quality of life. Some women are hardly bothered by menopausal symptoms. Others have chronic hot flashes and night sweats that are so intense they cause insomnia, depression, low libido and can cause a woman to feel pretty miserable most of the time. These symptoms are usually temporary, but some women may experience them for years.

HORMONE THERAPY

Most menopausal symptoms can be reduced with estrogen or estrogen-progesterone combination therapy (HT). The consensus among the leading menopause experts is that the benefits of using HT for women with severe menopause symptoms are an important medical management tool. The prescription of HT assumes the woman is otherwise healthy, is using it short-term, and at the lowest dosage necessary to ameliorate symptoms. Hormones are seen as a temporary measure to get over the initial symptomatic surge that women may face at the beginning of menopause. The natural aging process and one's personal risk factors must be part of the overall assessment of longer-term use.

Estrogen and progesterone are best known as the hormones associated with menstruation, ovulation and preparing the uterus for egg implantation. It is also important to recognize their impact on the physiology and biology of other parts of the female body. Many organs of the human body have estrogen and progesterone receptors including the skin, bone, breast tissue, uterine lining and blood vessels. The dominant hormone for the sake of this discussion is estrogen. An estrogen receptor is a cellular regulatory protein that binds estrogens, found in nearly all cell types, but particularly in estrogen-sensitive tissues such as the uterus and breast.

Estrogen during the pre-menopausal years helps maintain 1) normal skin thickness and elasticity, 2) stability and elasticity within the blood vessels, 3) adequate calcium

absorption needed for bone strength, 4) vaginal function, and 5) bladder and urethral health. It is these functions that should be our main concern when considering hormonal therapy because they create serious problems later in life.

ESTROGEN DEPLETION EFFECTS

By the time a woman has reached natural menopause, estrogen output has decreased significantly. Even though low levels of this hormone are produced by other organs in the body after menopause (e.g., fatty tissue) these levels are only about one-tenth of the level found in premenopausal women.(1) Progesterone is nearly absent in women who have reached menopause.

In addition to relieving vasomotor conditions (e.g., hot flashes), the sudden reduction of estrogen in the body may increase a women's risk for more serious conditions including bone and joint disorders (osteoporosis, arthritis), cardiovascular diseases (coronary heart disease, stroke), diabetes, cancer (breast, ovarian, lung and GI), mood and cognitive disorders (dementia, depression, Alzheimer's), sexual health (low libido, painful sex) and urinary tract disorders (incontinence and urinary tract infections).(2) HT has been demonstrated to reduce risks for some of these conditions (osteoporosis and GI cancer) and in other cases HT has been proved to be harmful (estrogen dependent cancers, certain types of stroke).

STATUS OF CURRENT RESEARCH

Scientists are only now recognizing that subtle variables in different studies may be important. For example, the timing (in relation to menopause onset) when HT is initiated may have a significant impact on long-term health outcomes. There is preliminary evidence that HT may reduce the accumulation of coronary artery calcium, which leads to calcified arteriosclerotic plaque build up--a precursor to cardiovascular events.(3) Further study may clarify if a window of opportunity (risk reduction) is lost as a result of delaying HT for several years post menopause.

One of the challenges in assessing the benefits and risks of long-term hormone use post menopause is the dearth of studies that were designed to look at the long-term impact of HT that could be applicable to all populations. According to the 2010 Position Statement released by the North American Menopause Society:

- There is a scarcity of randomized prospective study data on long-term use of hormone therapy
- Study results can only be applied to the women for whom the studies were designed
- There are not enough randomized controlled trials (RCTs) to cover all different populations, ages, drug delivery methods and dosages.
- Practice of medicine can only base its interpretation on what information is currently available.(2)

The Women's Health Initiative ([WHI](#)) study funded by the National Institutes of Health is the primary referenced RCT on long-term hormone use. In 2002, the study leaders announced that women in the study taking HT were at increased risk of breast cancer, myocardial infarction, stroke, blood clots and dementia.(4)

This announcement created turmoil among the thousands of women taking HT and outraged many doctors who did not receive the announcement before it went public. Since the report was released in 2002, the WHI remains the only large RCT that includes relatively long term use. However, even this study's findings cannot be applied

to all postmenopausal women because:

- Only one formulation of estrogen alone or with progestin was used.
- The study drugs used a single route of delivery (oral).
- Participants' mean age was 63 (ten years past the average onset of menopause), exposing their bodies to the effects of decreased estrogen before starting HT.

Fortunately, a number of studies are currently underway that continue to address the complexity of hormones including the timing of hormone use (e.g., at the onset of menopause or years later), different dosages and formulas, and several routes of administration (oral, transdermal, and interuterine). Researchers may find that certain dosages and delivery systems work better for subsets of women with different health profiles.

DECISION MAKING TODAY

The good news is that we have learned a lot of lessons from the WHI and new research is ongoing that will explore unanswered questions. However, if you are currently going through menopause and want help with symptoms but are concerned about the long term effects of HT as well as estrogen depletion on your bones, for example, what should you do?

The answer rests in a multidisciplinary approach to decision making. Discuss your personal risk profile for osteoporosis, heart disease, blood clots, diabetes, depression and breast cancer with your doctors. Including your internist in the discussion is important because they have a broad knowledge in the areas of heart, bone, diabetes and cancer. In addition, your gynecologist is likely to know more about the latest research on sex hormones, the benefits and risks of different drug delivery mechanisms, and may be easier to talk about quality of life issues like reduced libido. Maintaining one's health requires a team approach and knowing what questions to ask.

Finally, reassess your symptoms and health profile every few years. You may find that your risk profile has changed as you age and that the use of hormone therapy may be replaced by other preventive measures. Keep reading credible health articles and avoid high profile books from movie stars who have suddenly become experts on hot flashes!

SUGGESTED WEBSITES AND RESOURCES

[The Endocrine Society](#)

[North American Menopause Society \(NAMS\)](#)

[Women's Health.gov](#)

[Women's Health Initiative Study](#)

References:

(1) <http://www.cancer.gov/cancertopics/factsheet/Risk/menopausal-hormones>

(2) *Estrogen and progestogen use in postmenopausal women: 2010 position statement of the North American Menopause Society*. Menopause (2010)

(3) Allison, MA, Manson JE, et. al. Menopause (2008)

(4) Rossouw JE, Anderson GL, Prentice RL, et al. *Risks and benefits of estrogen plus progestin in healthy post menopausal women: principal results from the Women's Health Initiative Randomized Controlled Trial*. JAMA (2002)

UPCOMING EVENTS

March 8, 2011

[Women's Heart Health: Cardiovascular Disease and Lipids](#)

Prentice Women's Hospital, Chicago, Illinois

March 15, 2011

[Women's Heart Health: Nutrition for Cardiovascular Health](#)

Prentice Women's Hospital, Chicago, IL

March 22, 2011

[Institute for Women's Health Research Monthly Forum:
Introduction to Toxicology and Trends in Poisoning](#)

Prentice Women's Hospital Chicago, Illinois

HEALTH TIP

Buyer Beware

Natural (coming from plant or animal sources) does not always mean better especially when it comes to hormones. Many women have been looking for natural products to replace their prescription hormones. If the molecular structure of a natural product is identical to a hormone used by the human body, then it can be called *bioidentical*. These bioidentical hormones are made or 'synthesized' in the laboratory and go through regulatory approval.

Hormones made from soy, yams or other plants may be *natural* but the hormone molecular structure may *not be bioidentical* to the hormones being replaced in a woman's body. In fact, these hormones may be in a form that is actually harmful to a human. This is the key concern when discussing bioidentical hormone therapy (BHT). Use of BHT is increasing and the dosage often determined by salivary hormone testing, a procedure that has not been proven accurate or reliable by any clinical studies. Many compound formulations used in BHT have not undergone safety testing by the FDA. If you use custom compounds you should request a patient package insert like you get with most prescriptions that attest that your compound has regulatory agency approval.

[Illinois Women's Health Registry News](#)

Starting in mid-March, women who renew their Registry profiles will be entering data on Version 4 of the Registry! This officially marks our 4th Anniversary! Second, the Spanish version of our Registry is currently being tested and will be available soon. Finally, we consolidated all our Facebook accounts into one and if you were a "friend" of the Registry, we need you to redirect to our single page. To do this, go to your Facebook search tool and type in: Institute for Women's Health Research. Go to our page and click "Like". [If you have not enrolled in the Registry, please join now!](#)

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