



## **Estrogen & breast cancer: How to balance the risks & benefits.**

### **Introduction**

One of the most common questions I am asked in my practice: “is it safe for me to take hormones?” Although there is no simple answer to this question, progress is being made in clarifying both the risks and the benefits. Understanding this new information allows women to make better informed decisions as to what is best for them.

### **History**

To help you better understand the current controversies surrounding this issue, I will briefly review the history of hormone replacement. In the 1940s, estrogen replacement (ERT) became widely available to women and proved to be a wonder drug in relieving menopausal symptoms. Women who were incapacitated by menopausal symptoms such as major mood disturbances, hot flashes, night sweats, vaginal dryness, etc. found hormone replacement successfully treated these symptoms.

Studies a few decades later demonstrated that estrogen users who had not had a hysterectomy experienced an increased risk of uterine cancer. This risk was eliminated if women took progesterone as well as estrogen. Today, a combination of estrogen and progesterone (HRT) is recommended for all women with an intact uterus that elect hormone replacement.

### **Hormone replacement and risk of heart disease**

Up until a few years ago, we believed that estrogen replacement protected the heart, but more recent studies have demonstrated an increased risk of heart attack and stroke in women taking long-term hormone replacement therapy. More recent studies have further clarified these risks. Women over 60 years of age who start hormone replacement therapy do have an increased risk of developing heart disease. However, women who start hormone replacement in their 50's have a lower risk of heart disease.

### **Hormone replacement and risk of breast cancer**

Caution concerning hormone replacement and the risk of breast cancer comes from two large and important studies (WHI and the Nurses Study). Both studies demonstrate an increased risk for breast cancer with long-term follow up, but more detailed analysis of the data suggest that the risks are not equally distributed. For example, one recent update of the WHI data suggests no increased risk of breast cancer with up to 20 years of estrogen replacement (ERT), but after 20 years the risks accelerated. Good news for the women taking estrogen.

The WHI did show a 24% increase risk of breast cancer after HRT for more than 5 years, which led to the discontinuation of this arm of the study. However, as bad as a 24% increase in risk sounds, it should be considered in perspective. The actual risk of getting breast cancer at 5 years is very low and so a 24% increase is not quite as bad as it sounds. For example,



assume two groups of 50 year old women with 1,000 women in each group. Assume that one group took HRT and the other group did not. Also, assume that after 5 years, 20 women in the no hormone group developed breast cancer and 40 women in the HRT group developed breast cancer. One could accurately conclude that the risk of breast cancer in the hormone group was double (i.e. 100% increase) the risk of the women who did not take hormones. However, the absolute risk was only 2%. In other words there were only 20 more women out of 1,000 (2%) in the HRT group that got breast cancer.

Of course, if someone is writing a sensational headline regarding such a study, it would undoubtedly state that HRT doubles the risk of breast cancer. However, if a woman is trying to make a decision as to her risks for taking HRT, it is important that she is also consider the absolute, not relative risks in order to make a more informed decision and to feel less anxiety (but fewer newspapers would be sold).

The point of course is that there is a tendency on the part of the media to overstate the risks. Although the risks are real, they must be balanced with the potential benefits. Some women are so incapacitated by the severity of menopausal systems that the benefits of hormones may outweigh the risks. Other women go through menopause with almost no symptoms. For these lucky women, the major benefit of hormone replacement is to reduce the risk of osteoporosis. However, osteoporosis can be effectively treated without the need for hormone replacement.

### **How does a woman decide?**

For the majority of women, menopause is a challenging time, and hormone replacement can make the transition easier. Short-term hormone replacement (2yrs) is safe and effective. Of course, the dose should be kept as low as possible (only enough to keep symptoms under control). Longer term use of estrogen may be safe for up to 20 years (I would still be cautious for any treatment over 10 years). As always, the use of HRT beyond 2 years and ERT beyond 5 years should be a decision that is made after a detailed discussion with your physician.

This decision should take into account a woman's family history and her history of previous breast biopsies (see discussion on risk from last month). Women with a first degree relative with breast cancer (mother, sister or daughter) should be more cautious about long-term hormone replacement. Also women with previous high risk biopsies should be cautious about hormone replacement therapy. Women who elect to go on long-term replacement should keep the dose as low as possible, and they should attempt to decrease the dose at periodic intervals.

Of course, it is important for women on long-term hormone replacement to be especially diligent when it comes to breast care. This means that they should have yearly screening mammograms, do monthly B.S.E, and have a yearly breast examination by a health care professional. Women with new breast symptoms should be evaluated by their physician. Women with dense breasts should be especially diligent and consider alternative methods of screening such as an MRI.

I hope this information has been helpful. If you have questions, please contact us.