What is Hormone Replacement Therapy (HRT)?
At menopause, the ovaries stop producing estrogen and progesterone. Estrogen is a hormone that plays a key role in a woman's reproductive function. During menopause, many women experience hot flashes, mood swings and cessation of menstrual periods. In addition, bone loss accelerates and there is promotion of atherosclerosis ("hardening of the arteries") following menopause. HRT involves taking estrogen, either as a pill taken by mouth or as a patch worn on the skin. Another hormone called progesterone is given with the estrogen if you still have your uterus. HRT refers to the combination of estrogen and progesterone. If estrogen alone is given, this therapy is defined as estrogen replacement therapy (ERT). Unless otherwise noted, the risks and benefits of HRT and ERT are similar.

What are the benefits of HRT?
The benefits of HRT include:

- reduction in hot flashes and other menopausal symptoms
- improvement in vaginal lubrication with decreased burning/itching
- slowing of the rate of bone loss (osteoporosis prevention)
- possibly decreasing the risk of colon cancer

For the last 10 years or so, HRT has been promoted as one way to delay heart disease in post menopausal women. Logically, this approach made sense. Since estrogen has a beneficial effect on cholesterol and other risk factors that contribute to atherosclerosis, the presence of estrogen was thought to be the major reason why women develop heart disease at a later age than men. When estrogen production declines at menopause, a woman's risk of heart disease begins to rise. However, some recent, well designed clinical studies have now reversed our thinking in this area. First, a recent clinical trial in women who already had heart disease showed that estrogen use actually increased the risk of a heart attack. Then, in July 2002, the somewhat surprising results of the Women's Health Initiative (WHI) were published. The WHI was a large clinical trial that enrolled over 26,000 healthy post-menopausal women. The study was not expected to be completed until 2005. However, the HRT portion of the trial was stopped early because women taking the HRT actually had MORE cardiovascular events (heart attacks, strokes) than women taking the placebo (no estrogen). Thus, contrary to the expected result, estrogen and progesterone use after menopause did not prevent cardiovascular disease. These disappointing results were limited to women taking HRT, especially in older women taking HRT. For those women taking ERT-estrogen only (primarily, women with no uterus), the results showed no harm but no benefit either.

What are the risks of taking HRT?
Additional risks of HRT are the possibilities of developing breast and/or uterine cancer. Researchers have discovered that giving progesterone with estrogen when a woman still has a uterus can eliminate any risk of developing uterine cancer (also called endometrial cancer). However, there remains an increased risk of breast cancer associated with HRT but the absolute risk is small. The risk increases as the HRT is used for longer periods of time. Monthly self-
breast exam, yearly breast exam by a health professional and a yearly mammogram are recommended for all women taking HRT. With these precautions, breast cancer can be detected early and the prognosis is good. Also, for ERT, (no progesterone), there was no increase risk of breast cancer.

In addition, women taking HRT are at increased risk for stroke and blood clots.

**How is HRT prescribed?**

*If you still have a uterus,* your physician will recommend that you take a progesterone with the estrogen. There are two common ways to prescribe the HRT:

- **Take both the estrogen and the progesterone on a daily basis.** For the first 6 months on this regimen, there is usually intermittent, unpredictable vaginal bleeding. Bleeding beyond 6 months with this regimen is unusual and should be reported to your physician.
- **Take the estrogen daily but take the progesterone for only 10-14 days each month.** This regimen usually produces regular, predictable menstrual bleeding indefinitely. Some women prefer this regimen because they know that bleeding will start 1-2 days after the progesterone is stopped each month. Bleeding occurring at the wrong time of the cycle or very heavy bleeding at any time should be reported to your physician.

*If you do not have a uterus,* estrogen alone is all that is necessary. When given as a pill, estrogen is taken daily (conjugated estrogen 0.625mg is the usual dose). When used as a skin patch, the estrogen patch is applied twice weekly. In women with a history of blood clots or liver problems, the patch may be preferred.

*If vaginal symptoms (vaginal burning, itching, pain) are prominent,* an estrogen cream applied directly to the vaginal surface may also be prescribed.

**What are the side effects of HRT?**

Besides vaginal bleeding in women who still have a uterus, other side effects of HRT include:

- breast tenderness
- fluid retention/swelling
- mood changes (depression, irritability)
- pelvic cramping

Many of these side effects lessen after several months of using HRT. There is no evidence that taking HRT increases your risk of blood clots but in women with a history of blood clots, the estrogen patch may be preferred.

**How do you decide?**

Taking HRT is a personal decision. The current evidence favors NOT using HRT in most women, especially for prolonged periods of time (greater than 5 years). The main use of HRT currently is for controlling menopausal symptoms. The risk of using HRT for less than 5 years is
very small. Finally, it is likely that additional studies using different progesterone component or different formulations of estrogen will be initiated but the current recommendations are for avoiding the long term use of estrogen replacement.