JAMA
PATIENT PAGE

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OSTEOPOROSIS

Postmenopausal women face difficult dilemma of choosing estrogen or other therapies

No bones about osteoporosis

Do you want to protect against osteoporosis and heart disease? Or breast cancer and uterine cancer? For postmenopausal women, the reasons for taking or avoiding hormone therapy can seem confusing and difficult.

Women may need **estrogen replacement therapy** (ERT) because their ovaries produce less estrogen after menopause. Lower levels of estrogen cause hot flashes and can increase the risk of osteoporosis and heart disease. But replacing estrogen may increase the risk of breast and uterine cancers, although risk of uterine cancer is reduced when progesterone is used in addition to estrogen (**hormone replacement therapy**, or HRT).

Osteoporosis (a condition caused by low bone density, which makes bones brittle and easily fractured) and low bone mass affect 28 million Americans, 80% of whom are women, and is responsible for 1.5 million fractures each year.

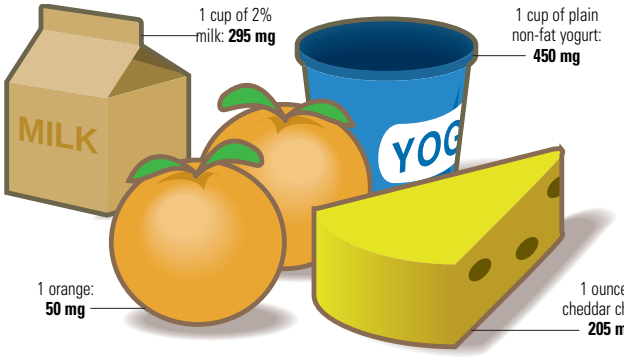
According to an article in this issue of *JAMA* (page 1445), researchers have been working to identify drugs that have the positive effects of estrogen on bones and the cardiovascular system without the risks to the breast and uterine tissues. The researchers studied a new type of drug—raloxifene—and compared its effect on cardiovascular risk factors in postmenopausal women against that of HRT. The researchers found that although raloxifene helped lower a number of risk factors for coronary artery disease and increased some components in the blood that protect against the disease, the effects were oftentimes not of the same magnitude as from HRT. Unlike HRT, raloxifene did not cause vaginal bleeding or breast tenderness. However, raloxifene did not relieve hot flashes.

So what should you do after menopause to protect against bone loss? Talk with your doctor about the best ways for you to protect your bones after menopause.

Additional Sources: Osteoporosis and Related Bone Diseases-National Resource Center, National Academy of Sciences, American Dietetic Association

RECOMMENDED CALCIUM INTAKE:

Calcium requirements are greater at a younger age when bones are growing faster. Additionally, as one gets older, the body becomes less efficient at absorbing calcium and other nutrients.



AGE	mg/day*
1-3	500
4-8	800
9-18	1300
19-50	1000
51+	1200

* National Academy of Sciences, 1997

TREATMENT OPTIONS TO DISCUSS WITH YOUR DOCTOR:

- *Estrogen Replacement Therapy (ERT)* or *Hormone Replacement Therapy (HRT)*
  For both prevention and treatment of osteoporosis. Reduces bone loss, increases bone density in spine and hip, and reduces the risk of hip and spinal fractures in postmenopausal women.
- *Alendronate (brand name Fosamax®)*
  For both prevention and treatment of osteoporosis. Reduces bone loss, increases bone density in both spine and hip, and reduces risk of spine and hip fractures.
- *Calcitonin*
  A naturally occurring hormone involved in calcium regulation and bone metabolism, calcitonin slows bone loss, increases spine bone density, and may relieve the pain associated with bone fractures in women who are at least 5 years beyond menopause.
- *Raloxifene (brand name Evista®)*
  For the prevention of osteoporosis. Appears to prevent bone loss at the spine, hip, and total body. Effect on spine does not appear to be as strong as ERT or alendronate, but its effect on the hip and total body are more comparable. The effects of raloxifene on fracture risk are not yet known.

RISK FACTORS FOR OSTEOPOROSIS:

- Uncontrollable risk factors include the female gender, older age, smaller body size, family history, Caucasian or Asian ethnicity (especially women).
- Controllable risk factors include abnormal absence of menstrual periods, low estrogen level (menopause in women), and low testosterone level in men; a lifetime diet low in calcium and/or vitamin D; inactive lifestyle or extended bed rest; cigarette smoking; drinking too much alcohol; or using steroid medications.

FOR MORE INFORMATION:

- Osteoporosis and Related Bone Diseases~National Resource Center
  800/624-BONE or www.osteo.org/
  202/466-4315 (TTY)
- National Osteoporosis Foundation
  Department MQ
  P.O. Box 96616
  Washington, D.C. 20077-7456
  www.nof.org/

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