



# HEALTHY WOMAN

## News from the Office of Women's Health

Illinois Department of Public Health • Rod R. Blagojevich, Governor • Eric E. Whitaker, M.D., M.P.H., Director

Osteoporosis

Fall 2005

### An Overview

Osteoporosis is a disease in which a person's bones become porous and brittle and are more prone to fracture. In October 2004, the Surgeon General's report, "Bone Health and Osteoporosis," was released. It was the first report by the Surgeon General on osteoporosis and highlights the fact that this serious disease has been neglected long enough. Statistics are daunting, with an estimated 10 million Americans over the age of 50 having the disease and another 34 million at risk with low bone mass (osteopenia). Each year an estimated 1.5 million people suffer an osteoporosis-related fracture that often leads to a downward spiral in physical and mental health. For example, 20 percent of senior citizens who suffer a hip fracture will die from complications in the year following the fracture and one in five will end up in a nursing home

(Salkeld et al., 2000). Another 40 percent cannot walk without the aid of a cane or walker (Osteoporosis and Hip Fractures, Illinois Health Care Cost Containment Council, 1995-2000). Vertebral fractures commonly occur before

other fractures and can cause various consequences including kyphosis (dowager's hump) that can result in difficulty with breathing and digestion due to a slumped

over position. Some may have need for a walker to help them balance when standing and walking. Eighty percent of those with osteoporosis are women and one of every two women over age 50 will have an osteoporosis-related fracture in her lifetime. The occurrence of osteoporotic fractures in women is greater than the occurrence of heart attack, stroke and breast cancer combined (See Table 1 left). Due to the aging of the U.S. population, it is anticipated that the number of hip fractures could triple by the year 2020.

### Osteoporosis in Illinois

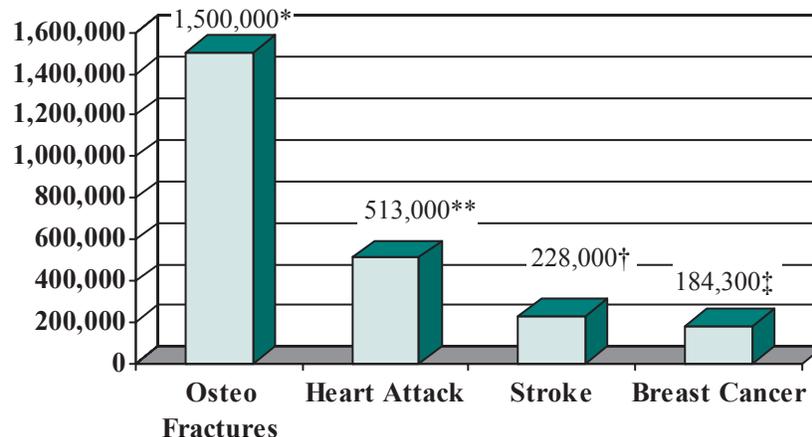
Osteoporosis is also a great problem in Illinois. Prevalence of the disease in 2002 was 420,600 with an additional 1.4 million having low bone mass

(osteopenia) placing them at risk for the disease.

Prevalence projections for the years 2010 and 2020 are shown in Table 2 above, which shows expected increases in disease prevalence as the population ages.

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#### Table 1. Frequency of Common Medical Events in Women



\* annual incidence all ages  
 \*\* annual estimate women 29+  
 † annual estimate women 30+  
 ‡ 1996 new cases, women all ages

Sources: 1. Riggs, B.L. and Melton, L.J. III, *Bone* 17(5)(Suppl.):505S-511S, 1995.  
 2. *Heart and Stroke Facts: 1996 Statistical Supplement*, American Heart Association.  
 3. *Cancer Facts and Figures—1996*, American Cancer Society.

#### Table 2. Prevalence of Osteoporosis and Low Bone Mass in Illinois Men and Women Age 50 and Over

	2002 Prevalence		2010 Projected Prevalence		2020 Projected Prevalence	
	Male	Female	Male	Female	Male	Female
Osteoporosis	96,200	324,400	111,400	361,600	124,600	395,300
Low Bone Mass	486,700	917,200	567,000	1,035,200	639,200	1,148,500
Total with Osteoporosis and Low Bone Mass	582,900	1,241,600	678,400	1,396,800	763,800	1,543,800

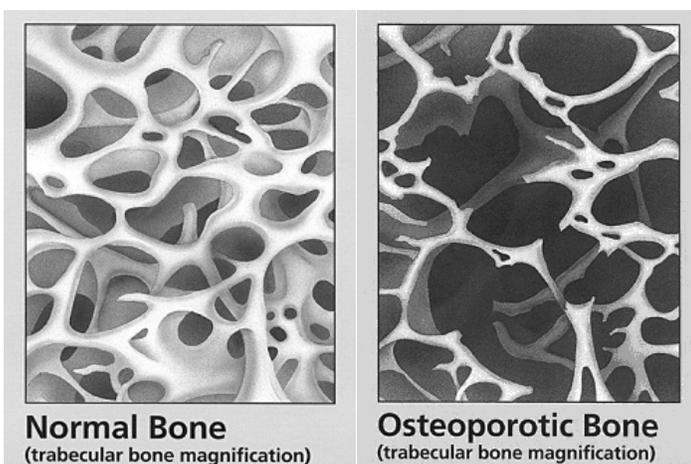
Source: *America's Bone Health: The State of Osteoporosis and Low Bone Mass*, National Osteoporosis Foundation, 2002.

## How Osteoporosis Occurs

Bones are not a lifeless organ as many think. Bones are living, growing tissue that are continually stressed and continually repairing themselves through a process called remodeling. Bone mass changes over the course of a woman's lifetime. In the **first stage**, a woman continues to gain bone mass from birth until about age 30, when peak bone mass, or the greatest bone mass a woman will ever have, is established. Typically by age 18, up to 90 percent of peak bone mass has already been attained. The **second stage** (from about age 30 to 50) is a time of slow bone loss. The **third stage** begins when a woman goes into menopause and no longer has the high levels of estrogen that she had in her childbearing years. Estrogen is one of the major hormones that regulate bone remodeling. At this stage, which occurs from about age 50 to 60, there is a period of rapid bone loss in which a woman can lose up to 20 percent of her bone mass in the first five to seven years following menopause (National Osteoporosis Foundation). In **stage four**, typically age 60 and older, there is still bone loss, but the rate of loss slows somewhat.

Over the course of a lifetime, women commonly lose 30 to 50 percent of their peak bone mass. One of two women over age 50 will develop osteoporosis. Figure 1 below shows the difference between healthy and osteoporotic bone.

**Figure 1. Healthy Bone vs. Osteoporotic Bone**



## Osteoporosis and Youth

Since 90 percent of bone mass is built in girls by age 18, the childhood, adolescent and teen years are the most important time to build peak bone mass. Eating sufficient amounts of calcium and vitamin D and getting enough, but not too much exercise, will enable girls to reach a greater peak bone mass. Calcium, vitamin D and exercise help to build bone density. The more bone built up early, the stronger bones will be throughout life. The goal is to build up enough bone mass when young so that a woman's bones never become osteoporotic, even when bone loss occurs later in life.

The lifestyle habits of many adolescents cause their bone growth to slow or stop during this crucial time of building peak bone mass. Though adequate calcium intake is crucial for proper bone growth, only 10 percent of girls ages 9 to 13 achieve the recommended adequate dietary intake of calcium (Institute of Medicine, 1999). Exercise is another factor in building peak bone mass. Youth who are sedentary will not put enough stress on their bones to build as much bone mass as they may have been able to if they were to exercise. Nearly half of American youth ages 12 to 21 are not vigorously active on a regular basis and 14 percent report no recent physical activity (U.S. Centers for Disease Control and Prevention). It is important that youth stay active and get at least 30 minutes of moderate exercise such as walking, or 15 to 20 minutes of more intense exercise, such as jogging or playing soccer, per day. On the other hand, too much exercise can halt bone building if a teenager, who has begun to menstruate, stops menstruating (amenorrhea). When a menstruating teen or woman stops menstruating due to intense levels of exercise, she puts her bones at risk and she can lose bone mass because she is not producing sufficient levels of estrogen. When estrogen is not produced in sufficient levels, bone resorption speeds up dramatically and bone loss occurs. Any teen that stops menstruating should cut down on the exercise she is doing and see her doctor for advice on the levels of exercise that are healthy for her and her bones.

Other risk factors for teens are eating disorders, such as anorexia and bulimia, which interfere with calcium and vitamin D intake and absorption, and, in addition, can promote amenorrhea that slows or stops estrogen production if enough body fat is lost. Some youth with these disorders have developed osteoporosis at a young age.

There has also been some concern about the long-term use of Depo-Provera and its effect on bone health, especially in teens. Depo-Provera has been shown to lower bone density

to a greater degree in users than non-users. However, a study of 440 women 18 to 39 years of age showed that after discontinuing the use of Depo-Provera, the negative effects on bone were reversed after two and a half years of non-use. The only exception to this was among women between 18 and 21 years of age, whose bone densities continued to lag behind those of non-users even two and a half years after discontinuing the use of Depo-Provera (Bone Loss in Depo-Provera Users Largely Reversible, NIH News Release, September 6, 2002). Another study of 250 women aged 14 to 18 over the course of two to three years revealed that women 14 to 18 years of age who used Depo-Provera experienced enough BMD loss that it could significantly raise their risk of experiencing a bone fracture. However, teens who stopped using the drug during the course of the study had BMD measurements at spine, hip and whole body 12 or more months after discontinuing use that were “at least as high as those of comparison women” who had not been exposed to the drug (Scholes, Delia, Archives of Pediatric and Adolescent Medicine, February 2005, Volume 159, pp. 139-144 and Depo-Provera and Bone Mineral Density Fact Sheet, National Women’s Health Network, February 2005). Further study is still needed with a greater number of teens to confirm these results. Currently, the National Osteoporosis Foundation includes Depo-Provera among medications that lower bone mass and place people at risk of developing osteoporosis. The FDA recommends that the drug should not be used for more than two years unless other birth control methods are inadequate.

### Osteoporosis in Illinois continued from page 1

Illinois hospitalizations for hip fractures were 11,953 in 2004, showing a decreasing trend since 2001 (Illinois Center for Health Statistics). The National Institutes estimate that there are 30,100 vertebral fractures in Illinois annually (Osteoporosis and Hip Fractures, Illinois Cost Containment Council, 1995-2000). In 2004, the annual cost of hospitalization due to osteoporosis in Illinois reached approximately \$737.5 million, nearly double the amount from 2000 (Illinois Center for Health Statistics) and are projected to keep growing. A large proportion of these costs are for rehabilitative or long term care, with 86 percent of those suffering from a hip fracture discharged from the hospital to another health care facility, such as a nursing home (Osteoporosis and Hip Fractures, Illinois Cost Containment Council, 1995-2000). Though such a large number of Illinois women suffer from the disease, results from the 2003 Behavioral Risk Factor Surveillance System (BRFSS) survey found that of women age 45 and older, only 54 percent had ever discussed osteoporosis with a health professional, only 41 percent had ever been screened and only 16 percent had ever been told by a health professional they have osteoporosis.

## Risk Factors for Osteoporosis

The more risk factors a woman has, the greater her likelihood of developing osteoporosis. Risk factors for developing osteoporosis include the following:

- Female gender
- Caucasian or Asian race (though other races can still have substantial risk for the disease)
- Advanced age (especially 65 years and older)
- Personal history of fracture as an adult
- History of fragility fracture in a first degree relative
- Low body weight (< 127 lbs.)
- Weight loss of more than one percent per year in the elderly
- Current smoking
- Late onset of sexual development
- Estrogen deficiency at an early age (< 45 yrs.)
- Unusual cessation of menstrual periods (including athletic amenorrhea)
- Use of oral corticosteroid therapy for more than three months
- Patients with diseases linked to secondary osteoporosis
- High levels of serum calcium or alkaline phosphatase in otherwise healthy patients
- Height loss of greater than one inch or progressive spinal curvature
- Impaired vision
- Dementia
- Poor health/frailty
- Recent falls
- Low calcium intake (lifelong)
- Low physical activity
- Alcohol consumption of greater than two drinks per day

## Diagnosis

Bone mineral density (BMD) testing is the “gold standard” test for those at risk of osteoporosis. BMD can be measured by several methods. Dual X-ray absorptiometry (DXA) is the accepted method for diagnosis and measures the bone density at the hip and spine. Other methods, such as peripheral scans, including the peripheral DXA (pDXA) or quantitative ultrasound (QUS), measure bone density at other sites, such as the heel, forearm or finger. Since bone density at these sites can differ from that of the hip or spine, the DXA is considered more predictive of fractures at the hip or spine. However, peripheral scans are useful for screening to identify patients who are at-risk of osteoporosis and who should receive a DXA.

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**Diagnosis** continued from page 3

There is a clear relationship between BMD and fracture risk in older women. In measuring the BMD of postmenopausal women to assess fracture risk, T-scores are measured in standard deviations (SDs) from the mean bone density of healthy young women. For each SD decrease in BMD, the risk of fracture increases by 1.5 to 2.5 times. The relationship between BMD and fracture risk is stronger than the relationship between cholesterol and heart attack and as strong as the relationship between blood pressure and stroke (Marshall et al., 1996). BMD measurement by DXA can be used to assess fracture risk and to establish the diagnosis and severity of osteoporosis. It can also be used to assess changes over time in individuals. In pre-menopausal women and children, Z-scores, which compare the individual's BMD to the mean BMD score of age, gender and ethnicity matched norms, should be used to assess bone health instead of T-scores. This is important for younger individuals, especially those who have not yet reached peak bone mass. It is important to note that while standard X-rays are used to diagnose fractures, they are not a good method for diagnosing bone mass or fracture risk. It is estimated that one must lose 30 percent of BMD for bone loss to be seen on a standard X-ray and, furthermore, an improperly performed X-ray in a normal person may appear to show bone loss.

The following definition for osteoporosis has been set by the World Health Organization based on bone mass measurement at the spine, hip or wrist in white postmenopausal women for assessments done with DXA:

**Normal:** T-score of -1.0 or above

**Low bone mass (osteopenia):** T-score between -1.0 and -2.5

**Osteoporosis:** T-score at or below -2.5

Several groups have designed guidelines for BMD testing of individuals and they are as follows:

■ **National Osteoporosis Foundation Guidelines**

- All women age 65 and older
- Postmenopausal women under age 65 with one or more of the following:
  - Family history of osteoporosis
  - Personal history of low-trauma fracture after age 45
  - Current cigarette smoking
  - Low body weight (less than 127 lbs.)
  - Postmenopausal women who present with fractures (to confirm diagnosis and determine disease severity)

■ **U.S. Preventive Services Task Force Guidelines**

- All women age 65 and older
- Women between age 60-64 who are at high risk (body weight less than 70 kg. who are not on hormone therapy)

■ **Other Clinical Recommendations for BMD Testing**

- Low-trauma fractures as an adult
- Hyperthyroidism
- Hyperparathyroidism
- Vitamin D deficiency (osteomalacia)
- Rheumatoid arthritis
- Medications that cause bone loss
- Diseases that cause poor intestinal absorption

(The above section on diagnosis was adapted from Bone Health and Osteoporosis: A Report of the Surgeon General, U.S. Department of Health and Human Services, 2004 and Physician's Guide to Prevention and Treatment of Osteoporosis, National Osteoporosis Foundation, Washington, D.C., 2003)

## Treatment

According to the National Osteoporosis Foundation treatment should be initiated in women with:

BMD T-scores below -2.0 by hip DXA with no risk factors  
 BMD T-scores below -1.5 by hip DXA with one or more risk factors

Prior vertebral or hip fractures

Medications currently approved by the U.S. Food and Drug Administration (FDA) for the treatment of osteoporosis are identified below.

## Bisphosphonates

- **Alendronate (Brand name: Fosamax®)**  
Daily or weekly regimen.
- **Risedronate (Brand name: Actonel®)**  
Daily or weekly regimen.
- **Ibandronate Sodium (Brand name: Boniva®)**  
Monthly regimen.

Bisphosphonates are FDA approved for the prevention and treatment of osteoporosis in postmenopausal women.

Both Alendronate and Risedronate have been shown to reduce spine, hip and other fractures by 36 to 50 percent over three years. Ibandronate Sodium has been shown to increase the lumbar spine BMD by 4.9 percent over one year. Further studies are needed to confirm its effect at other sites.

It is important to note that bisphosphonate therapies must be taken first thing in the morning on an empty stomach with eight ounces of water and no other liquids. For Fosamax and Actonel, the patient must remain in an upright position (sitting or standing) for at least 30 minutes

after taking the drug and not drink or eat anything else for this period of time. For Boniva, the patient must remain upright for at least 60 minutes and not drink or eat anything else during this period of time.

## Estrogen and Selective Estrogen Receptor Modulators

### *Estrogen/Hormone Therapy (Various brand names)*

Estrogen/hormone therapy (ET/HT) is approved by the FDA for the prevention of osteoporosis. HT is prescribed for women who have not had a hysterectomy, since in addition to estrogen, it also contains progestin to protect the uterine lining. Women who have had a hysterectomy and do not have a uterus can take ET alone. The Women's Health Initiative (WHI) study found that women taking Prempro® for five years reduced the clinical risk of vertebral and hip fractures by 34 percent. However, when their use is solely for the prevention of osteoporosis, approved non-estrogen treatments should be considered as the first line of treatment rather than ET/HT. This is because the WHI study also reported increased risks of heart attack, stroke, invasive breast cancer, pulmonary emboli and deep vein phlebitis during five years of treatment with Prempro®. Other doses and combinations of estrogen and progestin were not studied, but in the absence of comparable data, their risks should be assumed to be similar. Due to these other risks, ET/HT should be used in the lowest possible doses for the shortest duration to meet treatment goals.

### *Raloxifene (Brand name: Evista®)*

Raloxifene is a selective estrogen receptor modulator (SERM) that is taken orally on a daily basis for the prevention and treatment of osteoporosis in postmenopausal women. Raloxifene has been shown to reduce the risk of vertebral fractures by 30 percent in patients with a prior spine fracture and by 55 percent in patients without a prior spine fracture. Currently there is no evidence that it significantly reduces the risk of non-vertebral fractures. Raloxifene increases the risk of deep vein thrombosis and also increases hot flashes, though it appears to decrease the risk of estrogen-dependent breast cancer. Its effect on heart disease is being investigated.

## Other Hormonal Medications

### *Calcitonin (Brand name: Miacalcin®)*

For the treatment of osteoporosis in women who are at least five years postmenopausal, salmon calcitonin is administered as a daily intranasal spray or by subcutaneous injection. Results from several clinical trials showed that it lowered vertebral fractures by 21 to 54 percent. It did not have an effect on non-vertebral fractures in any of the

studies. However, it has been shown to be effective in reducing back pain. Calcitonin is generally safe and well tolerated, though some patients experience rhinitis and, rarely, epistaxis.

### *Parathyroid hormone or PTH (1-34) (Brand name: Forteo®)*

For the treatment of osteoporosis in postmenopausal women who are at high risk for fracture based on BMD results. It is administered by daily subcutaneous injection and has been shown to decrease the risk of spine fractures by 65 percent and non-spine fractures by 53 percent in those with osteoporosis after 18 months of therapy. PTH (1-34) does occasionally cause side effects in patients including leg cramps and dizziness. Since studies in rats showed an increase in the risk of osteosarcoma, patients who are at risk for osteosarcoma should not receive PTH (1-34). The safety and efficacy of this drug has not been demonstrated beyond two years of treatment.

(Much of the treatment section has been adapted from Physician's Guide to Prevention and Treatment of Osteoporosis, National Osteoporosis Foundation, 2003.)

## Prevention

Lifestyle behaviors and choices can have a great impact on bone health. These include:

- Getting the daily recommended amounts of calcium and vitamin D
- Engaging in regular weight-bearing and resistance exercises
- Avoiding smoking and excessive alcohol intake
- Talking to your healthcare provider about bone health
- Having a bone density test and taking medications when appropriate
- Taking measures to make your environment safe to avoid falls

### *Calcium*

Calcium is a mineral that the body needs for various functions in the body, including building and maintaining bones and teeth, blood clotting, the transmission of nerve impulses and the regulation of the rhythm of the heart. Calcium is necessary for bone health and to prevent osteoporosis. The amount of calcium needed by the body at various ages is shown in Table 3 below.

The best way to obtain needed calcium is from food. Foods that are high in calcium include dairy products, such as milk, yogurt and cheese, calcium-fortified juices,

**calcium** continued from page 5

small fish with bones, green leafy vegetables, broccoli, soy products including soy milk, fortified rice milk, tofu and some nuts such as almonds. In order to increase calcium intake from foods, powdered milk or cheese can be added to many foods, such as puddings, breads, cereals, cookies, soups, gravy, casseroles or milk. Each tablespoon of non-fat powdered milk adds 52 mg. of calcium and two to four tablespoons can be added to most recipes. Plain yogurt can often be substituted in recipes in place of sour cream.

Some people are lactose intolerant and have difficulty digesting the enzyme lactase that is needed to digest milk sugar (lactose). Yogurt, which contains acidophilus that helps break down the lactose, is usually well tolerated by these people, as are hard cheeses. Lactase can be added to dairy foods prior to consuming them so that the lactose is already broken down before consumption. Some products contain lactase and can be purchased already treated.

If you are still unable to get enough calcium through your diet, you may want to take a calcium supplement and should discuss this option with your doctor. It is important to read the supplement label and find out how much elemental calcium is in the supplement. Elemental calcium is the amount of calcium actually absorbed by

the body. Calcium carbonate needs stomach acid to dissolve and be absorbed and is therefore best taken with meals, while calcium citrate can be taken at any time. You can test the supplement for absorbability by placing it in a glass of warm water or vinegar for 30 minutes to see if it dissolves. It is also important that calcium supplements are only taken 500 mg. at a time up to twice a day, since no more than this amount can be absorbed by the body at one time. Finally, "natural" calcium, such as bone meal or dolomite should be avoided as they may contain toxic lead or mercury.

**Vitamin D**

Vitamin D is as critical as calcium for bone health, since it is what enables calcium to leave the intestines and be absorbed by the bloodstream to be delivered to the bones. Vitamin D is manufactured in the skin following exposure to sunlight. About 10 to 15 minutes of sun exposure outside several times per week on one's hands, arms and face is all that is needed to satisfy the body's vitamin D requirement. However, use of sunscreen greatly diminishes the manufacture of vitamin D. In addition, those who live in northern climates may not get enough outside exposure during the winter season to manufacture sufficient amounts of vitamin D. A recent study of 1,544 postmenopausal women revealed that 52 percent of these women did not have sufficient vitamin D concentrations (North American Women Receiving Inadequate Vitamin D, American Association of Clinical Endocrinologists, May, 2005). Vitamin D can also be found in some foods, but there are so few sources that it is often difficult to obtain sufficient amounts from food. Foods containing vitamin D include egg yolks, saltwater fish, liver and vitamin D fortified dairy products. When taking supplements, it is recommended that between 400 and 800 I.U. are taken daily. Many calcium supplements have vitamin D already added and this is probably the most efficient way to take calcium supplements, since the vitamin D is readily available to enable the absorption of calcium. It is important to take no more than 2,000 I.U. of vitamin D per day, because it may be harmful.

**Exercise**

In Illinois, as revealed by the 2003 BRFSS survey, only 34 percent of women age 45 and older received the recommended amount of physical activity per week, 43 percent had some activity, but did not meet the recommendation and 22 percent reported no physical activity. This is of great concern because sedentary lifestyle increases a woman's risk of osteoporosis.

**Table 3. Optimal Calcium Requirements**

<b>Group</b>	<b>Optimal Daily Intake (in mg of calcium)</b>
<b>Infant</b>	
Birth-6 months	400
6 months-1 year	600
<b>Children</b>	
1-5 years	800
6-10 years	800-1,200
<b>Adolescents/Young Adults</b>	
11-24 years	1,200-1,500
<b>Men</b>	
25-65 years	1,000
Over 65 years	1,500
<b>Women</b>	
25-50 years	1,000
Over 50 years (postmenopausal)	1,500
On estrogens	1,000
Not on estrogens	1,500
Over 65 years	1,500
Pregnant and nursing	1,200-1,500

Source: Optimal Calcium Intake. NIH Consensus Statement Online 1994 June 6-8; 12(4):1-31

Exercise is important for keeping bones strong and healthy. Bones become stronger when demands are placed on them, therefore a lack of exercise can contribute to low bone density. There are two types of exercises that are important for building and maintaining bone density. They are weight-bearing and resistance exercises. Weight-bearing exercises are those exercises in which bones and muscles must work against gravity (i.e. your feet and legs are bearing your weight). Some examples are walking, jogging, stair climbing, dancing and soccer. These strengthen the bones of the lower body and help prevent hip fractures. Swimming and bicycling are not considered weight-bearing exercises. Resistance exercises are those activities that strengthen and improve muscle mass, put tension on bone and in turn, strengthen bone. Resistance exercises include weight lifting, such as use of free weights or weight machines, as well as use of resistance bands. These activities help strengthen the upper and lower body, depending upon which muscles are being called upon to work. Activities such as playing tennis combine both weight-bearing exercise for the legs and resistance exercise for the arm(s) holding and swinging the racquet. Extra caution is advised for those who are frail, have had a fracture or who have osteoporosis. Movements like twisting of the spine, high impact aerobics or bending at the waist can be harmful. It is important that before starting an exercise program a person consult with her physician.

## Fall Prevention

Improving the environment in and around your house can be an important element in preventing fractures from osteoporosis. Throw rugs should be removed or tacked to the floor and loose wires should be removed. Rails should be installed in stairwells, and if necessary, near toilets, bathtubs or showers. Rubber, non-skid mats should be placed in the tub or in front of the kitchen sink to prevent slipping. Make sure lighting is adequate, especially at night when getting up to go to the bathroom. Night lights can prevent you from bumping into or tripping over something. Finally, clear ice from the outside of your door, on steps or sidewalks near your house to prevent slipping. Exercises such as yoga or tai chi can also help you to improve balance and decrease your chance of a fall. Make sure to have a yearly eye exam to check for impaired vision.

For more information on osteoporosis or osteoporosis prevention, contact:  
 Foundation for Osteoporosis Research and Education 888-266-3015 or [www.fore.org](http://www.fore.org)  
 Illinois Department of Public Health 888-522-1282 or [www.idph.state.il.us](http://www.idph.state.il.us)  
 National Institutes of Health Osteoporosis and Related Bone Diseases National Resource Center 800-624-BONE, 202-223-0344 or [www.osteoporosis.org](http://www.osteoporosis.org)  
 National Osteoporosis Foundation 202-223-2226 or [www.nof.org](http://www.nof.org)  
 U.S. Department of Health and Human Services, National Women's Health Information Center 800-994-WOMAN or [www.4woman.gov](http://www.4woman.gov)  
 U.S. Department of Health and Human Services, Office of the Surgeon General 877-696-6775 or [www.surgeongeneral.gov/library/bonehealth/](http://www.surgeongeneral.gov/library/bonehealth/)

## IBCCP Anniversary Celebrated During Women's Health Week

The Illinois Department of Public Health and the Conference of Women Legislators (COWL) joined forces to sponsor a women's health fair and ceremony at the state capitol on May 12, 2005 to acknowledge Women's Health Week. The health fair included a variety of health screenings and informational material pertaining to women and the state services and programs available to them. A similar health fair was held by the Illinois Department of Public Health in Chicago at the James R. Thompson Center on May 10, 2005.



Dr. Whitaker (far right) presents an award certificate to Angela Keesy, the lead agency supervisor from the Rock Island County Health Department. Other program partners pictured to her left include: Kimberly Good, Whiteside County Health Department; Kris Kelley, Bureau County Health Department; Judy Trimble, Rock Island County Health Department; Mary Lund, Henry/Stark County Health Department; Pamela Balmer, who oversees the statewide program; and Sharon Green, Deputy Director of the IDPH Office of Women's Health.

As part of the May 12 day-long women's health fair in the Capitol Rotunda, representatives from the Governor's Office, the Illinois Department of Public Health, members of the Illinois General Assembly and COWL celebrated the 10th Anniversary of the Illinois Breast and Cervical Cancer Program (IBCCP). The IBCCP provided nearly 19,000 women with free screenings in FY 04 and to a total of 57,000 women since the inception of the program. The Illinois Department of Public Health's Office of Women's Health contracts with 26 lead agencies that work with 2,100 providers to offer free mammograms, breast exams, pap tests and pelvic exams to low-income women age 35 to 64 who have no health insurance. Speakers at the celebration included Louanner Peters, the Governor's

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## Mini-Grants Prove Successful

In FY 05, the Office of Women's Health funded 26 women's health mini-grants, 17 for health awareness seminars and nine for Women Out Walking (WOW) programs. These events, hosted by local health departments and community-based not-for-profit agencies, occurred throughout the state from January to June, 2005 and reached an estimated 2,500 women. Many of the mini-grant programs specifically targeted minority women. One such awareness seminar was conducted by the Macon County Health Department in Decatur on April 8, 2005 during National Public Health Week. The women's health awareness event, attended by nearly 250 African-American and Latina women, featured a health fair with exhibits and attractions, such as free blood pressure screenings, breast cancer risk assessments, body fat profiles, bone density screenings and oral cancer exams. A Women's Luncheon Seminar from 11 a.m. to 1 p.m. featured speakers who discussed cardiovascular disease, stress management and proper skin care throughout a woman's lifetime. In addition,

the Decatur YMCA demonstrated stretch and strengthening exercises. Women were given free resistance bands so that they could continue the exercises at home.



Women in Decatur learn how to use resistance bands to enhance physical activity.



A participant of the Arab American Family Services WOW program proudly displays her certificate of completion at a celebratory picnic held for walkers.

## IBCCP Anniversary continued from page 7

Deputy Chief of Staff for Social Services, Dr. Eric E. Whitaker, state public health director, state Rep. Patricia Bellock (R-Hinsdale) and Senate Majority Leader Debbie Halvorson (D-Crete), and Pamela Schmidt, a breast cancer survivor and IBCCP participant who attributes the program to saving her life. All 26 lead agencies were presented with an award during the ceremony for their efforts.



Dr. Whitaker (far right) presents an award certificate to Judy Simmons Juraco, the lead agency supervisor from the Fulton County Health Department. Other program partners pictured to her left include: Stephanie Willey, Hancock County Health Department; Robin Henry, Fulton County Health Department; Cynthia Sheffler, McDonough County Health Department; Beckie Lashbrook, Schuyler County Health Department; Pamela Balmer, who oversees the statewide program; and Sharon Green, Deputy Director of the IDPH Office of Women's Health.

Another mini-grant program was the Women Out Walking program conducted by Arab American Family Services. One hundred-fifty Arab women enrolled and 93 women participated in the program. Educational meetings were presented by Arab American medical and fitness experts on the benefits of walking and maintaining a healthy lifestyle. Free pedometers to measure steps were given to women who participated, along with educational materials in Arabic. These meetings were followed by opportunities to walk together. Follow up calls were made weekly to check on the women's progress with walking and to encourage them to continue. The last meeting held on June 11, 2005 included a celebratory picnic and two-mile walk. Those who completed the program were given certificates and gifts.



## Governor Announces 2006 Women's Health Grants

Gov. Rod R. Blagojevich recently announced more than \$2.3 million in grant awards for women's health education and research projects to be conducted in fiscal year 2006.

Women's Health Initiative grants totaling more than \$1.6 million were awarded to local health departments and other non-profit organizations. The grants fund educational programs focusing on cardiovascular disease, osteoporosis, menopause and eating disorders. A total of 77 grants were funded, as well as three special pilot projects.

Fourteen other grants totaling \$700,000 were awarded to universities through the Penny Severns Breast, Cervical and Ovarian Cancer Research Fund. These grants fund research projects investigating causes, prevention and treatment for breast, cervical and ovarian cancer.

Fiscal year 2006 Women's Health Grantees are listed below:

### ***Cardiovascular Disease – Heart Smart for Teens***

Bureau County Health Department, Princeton  
Cass County Health Department, Beardstown  
Country Club Hills School District 160, Country Club Hills  
Crawford County Health Department, Robinson  
Dewitt-Piatt Bi-County Health Department, Clinton  
East Side Health District, East St. Louis  
Hancock County Health Department, Carthage  
Henry County Health Department, Kewanee  
Livingston County Health Department, Pontiac  
Logan County Health Department, Lincoln  
Macoupin County Health Department, Carlinville  
Madison County Health Department, Wood River  
McLean County Health Department, Bloomington  
Menard County Health Department, Petersburg  
Montgomery County Health Department, Hillsboro  
Sangamon County Health Department, Springfield  
Southern Illinois University School of Medicine, Springfield  
University of Illinois Extension – Tazewell County, Pekin  
Whiteside County Health Department, Rock Falls  
Woodford County Health Department, Eureka  
YWCA of Elgin, Elgin

### ***Cardiovascular Disease – Heart Smart for Women***

Adams County Health Department, Quincy  
Asian Human Services, Chicago  
Boone County Health Department, Belvidere  
Family Focus, Aurora  
Henderson County Health Department, Gladstone  
Ingalls Wellness Center, Homewood  
Jackson County Health Department, Murphysboro  
Knox County Health Department, Galesburg  
Marion County Health Department, Salem

Memorial Hospital of Chester, Chester  
Mercer County Health Department, Aledo  
Midwest Heart Foundation, Lombard  
Oak Park Department of Public Health, Oak Park  
OSF St. Francis Medical Center, Peoria  
PrimeCare Community Health, Chicago  
Rock Island County Health Department, Rock Island  
Saint Anthony Hospital (Programa CIELO), Chicago  
St. Ailbe Catholic Church, Chicago  
Sarah Bush Lincoln Health Center, Mattoon  
Sinai Community Institute, Chicago  
Springfield Urban League, Springfield  
Southern Illinois University School of Nursing at Edwardsville, Edwardsville  
Tazewell County Health Department, Tremont  
Wabash County Health Department, Mt. Carmel  
Will County Health Department, Joliet  
YMCA of McDonough County, Macomb  
YWCA of Lake County, Waukegan

### ***Eating Disorders Professional Education***

National Association of Anorexia Nervosa and Associated Disorders, Highland Park  
Pike County Health Department, Pittsfield  
St. Clair County Health Department, Belleville

### ***Menopause – Understanding Menopause***

ABTC Educational Services/Urban Life Line, Chicago  
Coles County Health Department, Mattoon  
Decatur Memorial Hospital, Decatur  
Fulton County Health Department, Canton  
Jasper County Health Department, Newton  
Kendall County Health Department, Yorkville  
McHenry County Health Department, Woodstock  
Stephenson County Health Department, Freetown  
Washington County Health Department, Nashville

### ***Pilot Projects***

Kane County Health Department, Aurora (Osteoporosis and Youth)  
Salem Township Hospital, Salem (Osteoporosis and Youth)  
Illinois State University, Normal (Women's Health Curriculum)

### ***Osteoporosis – Building Better Bones Education and Screening***

Chinese American Service League, Chicago  
Clinton County Health Department, Carlyle  
Coalition of Limited English Speaking Elderly – CLESE, Chicago  
Community Medical Center of Western Illinois, Monmouth  
Council for Jewish Elderly, Chicago  
Greene County Health Department, Carrollton  
Howard Brown Health Center, Chicago  
Jersey County Health Department, Jerseyville  
Korean American Community Services, Chicago  
Lake County Health Department, Waukegan  
Michael Reese Hospital, Chicago  
Peoria City/County Health Department, Peoria  
Salem Township Hospital, Salem  
Vietnamese Association of Illinois, Chicago  
White Crane Wellness Center, Chicago

**2006 Women's Health Grants** continued from page 9***Penny Severns Breast, Cervical and Ovarian Cancer Research Fund 2006 Grantees***

William W. Baldyga, Dr. PH, University of Illinois at Chicago  
 Steven J. Chmura, M.D., Ph.D, University of Chicago  
 Suzanne Conzen, M.D., University of Chicago  
 Andrei Gartel, Ph.D., University of Illinois at Chicago  
 Laura Murphy, Ph.D., Southern Illinois University at Carbondale  
 Sophia Ran, Ph.D., Southern Illinois University School of Medicine, Springfield  
 Miriam Rodin, M.D., Ph.D., University of Chicago  
 Guoxing Zheng, Ph.D., University of Illinois College of Medicine at Rockford

***Penny Severns Fellowship Grantees***

Fellow: Michael Chinander, Ph.D., Project Supervisor: Robert Nishikawa, Ph.D., University of Chicago  
 Fellow: Gu Li, Ph.D., Project Supervisor: Laimonis Laimins, Ph.D., Northwestern University, Chicago  
 Fellow: Min Zou, Ph.D., Project Supervisor: Suzanne Conzen, M.D., University of Chicago  
 Fellow: (ovarian grant) Marie Barbolina, Ph.D., Project Supervisor: Sharon Stack, Ph.D., Northwestern University  
 Fellow: (ovarian grant) Amy Hakim, M.D., Project Supervisor: Serdar Bulun, M.D., Northwestern University  
 Fellow: (ovarian grant) Hilary Kenny, Ph.D., Project Supervisor: Ernst Lengyel, M.D., Ph.D., University of Chicago



## New policies/laws/funding related to Women's Health

**HB 615/ PA 94-0447**

Creates the Reduction of Racial and Ethnic Health Disparities Act. Subject to appropriations for that purpose, requires the IDPH to establish and administer a program of grants to stimulate the development of community-based and neighborhood-based projects that will improve the health outcomes of racial and ethnic populations.

**Chief Sponsors:**

Rep. William Delgado (D-Chicago)  
 Sen. Iris Martinez (D-Chicago)

**HB 3564/ PA 94-0119**

Adds ovarian cancer to the Penny Severns Breast and Cervical Cancer Research Fund making it the Penny Severns Breast, Cervical, and Ovarian Cancer Research Fund.

**Chief Sponsors:**

Rep. Harry Osterman (D-Chicago)  
 Sen. Debbie Halvorsen (D-Chicago Heights)

**Senate Bills****SB 1/PA 94-0120**

Amends the Illinois Lottery Law. Requires the Department of Revenue to offer a special instant scratch-off game, with the title of "Ticket For The Cure", to commence on January 1, 2006 and to be discontinued on December 31, 2011.

Provides that the net revenue from the game be used for grants to public or private organizations in Illinois for breast cancer research or funding services for breast cancer victims. Sets forth procedures for the appointment of Board members and for the operation of the Board.

**Chief Sponsors:**

Sen. Mattie Hunter (D-Chicago)  
 Rep. Sara Feigenholtz (D-Chicago)

**SB 12/ PA 94-0121**

Amends the Illinois Insurance Code and the Health Maintenance Organization Act. Requires coverage of mammograms for women under 40 years of age with a family history of breast cancer or other risk factors at the age and intervals deemed medically necessary by the woman's health care provider.

**Chief Sponsors:**

Sen. Mattie Hunter (D-Chicago)  
 Rep. Sara Feigenholtz (D-Chicago)

**SB521/ PA 94-0122**

Amends the Illinois Insurance Code. Requires insurers to cover surveillance tests for ovarian cancer for female insureds who are at risk for ovarian cancer. Provides a definition for "at risk for ovarian cancer" and "surveillance tests for ovarian cancer".

**Chief Sponsors:**

Sen. Iris Martinez (D-Chicago)  
 Rep. Harry Osterman (D-Chicago)

**New Funding**

In the FY06 state budget \$100,000 in General Revenue Funds has been added to the Office of Women's Health for Ovarian Cancer Research. These fund will be granted to Illinois researchers through the renamed Penny Severns Breast, Cervical and Ovarian Cancer Research Fund. Illinois taxpayer can contribute to this fund when completing their annual Illinois 1040 income tax form.

**Administrative Action**

On April 1, 2005, Governor Rod Blagojevich issued an emergency order requiring Illinois pharmacies to ensure prescriptions for contraception are filled consistent with other medications. The Illinois Joint Committee on Administrative Rules, a bipartisan legislative oversight committee made the order permanent in August. This regulation places the burden on pharmacies to guarantee that pharmacists are not interfering with a women's access to prescription contraception including emergency contraception.

The First Lady announced a new web site that provides the current legislation and policies related to contraception. State plans that offer low-cost access to contraceptives are described. The web site is [www.contraceptives.illinois.gov](http://www.contraceptives.illinois.gov)



Governor Blagojevich has created a plan to save you up to **79%** on the cost of your contraceptives.

**I-SaveRx**  
 Safe and Affordable  
 Prescription Drugs

### I-SaveRx Savings on Birth Control

*As of July 10, 2005*

Contraceptive (three months supply)	I-SaveRx Price (including shipping)	Avg. US Mail Order Price	% Savings (including shipping)
Ortho-Evra 20-150	\$63.90	\$227.97	72%
Ortho-Novum 7/7/7	\$34.90	\$98.28	64%
Ortho-Cyclen	\$41.90	\$97.02	57%
Ortho Tri-Cyclen	\$65.90	\$120.12	45%
Alesse	\$63.90	\$100.17	36%
Micronor	\$31.90	\$154.56	79%
Triphasil	\$36.90	\$75.60	51%

*Prices per I-SaveRx website on 7-10-05. Prices are subject to change.*

To place an order, call **1-866-I-SAVE33**. You may also visit **www.I-SaveRx.net**.



**ROD R. BLAGOJEVICH**  
 GOVERNOR, STATE OF ILLINOIS



# IDPH Participates in Walking Program

Dr. Eric E. Whitaker, state public health director, urged employees of the Illinois Department of Public Health to “practice what we preach.” The result was Public Health Out Walking (PHOW), a 12-week program where those participating used pedometers to log their daily steps. While a typical adult averages between 3,000 and 5,000 steps a day, Dr. Whitaker urged employees to strive for 10,000 steps a day – roughly the equivalent of walking five miles. The 377 employees who participated in the Department’s walking program logged 210,523,013 steps or enough steps to walk around the world more than four times. The PHOW program was based on the Department’s Office of Women’s Health “Women Out Walking” mini-grant program and was designed to raise the awareness of daily physical activity to promote a healthy lifestyle.



## SAVE THE DATES

**December 7-8, 2005**  
**2005 Illinois Women’s Health Conference**  
**Hyatt Regency O’Hare, Rosemont, IL**  
**Register by visiting [www.idph.state.il.us](http://www.idph.state.il.us)**

**April 27-28, 2006**  
**Annual Conference of the Illinois School Health Association and Illinois Society of Public Health Education**  
**Starved Rock, Utica**  
**Contacts: Nancy Lacursia at 847-784-6570 OR Megan Edmondson at 618-288-3300 ext 3358.**

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Rod R. Blagojevich, Governor  
Eric E. Whitaker, M.D., M.P.H., Director  
Illinois Department of Public Health  
Sharon Green, Deputy Director  
Office of Women’s Health

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