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Key Inforbits

- Symptoms of Menopause
- Hot Flashes and Treatments
- Hormone Replacement Therapies
- Osteoporosis
- Lifestyle Modifications
- New Drug Therapies

National Menopause Awareness Month

What is Menopause?

Menopause, the time period when a woman ceases to have a menstrual period, typically affects women 40 to 58 years of age. The official definition of menopause is the “cessation of menstruation for 12 consecutive months” which means a woman’s reproductive years have ended.¹ This can occur naturally when the ovaries stop producing estrogen or surgically at any time if the ovaries are removed. The time period preceding menopause, perimenopause, is a time during which estrogen levels are gradually declining. This can begin as early as age 30 and is often associated with a variety of health problems and annoyances that can affect women’s quality of life.^{1,2}



Signs and Symptoms of Menopause¹

- Irregular periods
- Hot flashes
- Sleeplessness
- Dry skin
- Rapid heart beat
- Loss of libido
- Mood swings
- Vaginal dryness
- Urinary incontinence
- Depression
- Osteoporosis
- Hair loss

1. Americanmenopause.org [homepage on the Internet]. New York: American Menopause Foundation, Inc.; c2004 [cited 2008 Aug 20]. Available from <http://www.americanmenopause.org>.
2. Umland EM. Treatment strategies for reducing the burden of menopause-associated vasomotor symptoms. JMCP. 2008; 14(3):S14-S19.

Hot Flashes and Treatments

Menopause is often associated hot flashes, night sweats, and sleep disturbances. While the cause of these symptoms is not fully understood, one hypothesis is that a narrowing of the thermoregulatory threshold between sweating and shivering in the hypothalamus occurs due to changes in circulating levels of serotonin, norepinephrine, or estrogen.¹

While hormone replacement therapy (HRT) is an effective therapy for hot flashes, results of the Women's Health Initiative found that HRT is linked to breast cancer, stroke, venous thromboembolism, and dementia in some patients.^{1,2} Based on this information, many women are now choosing other options.² Although not FDA approved for hot flashes, some antidepressants (SSRIs [Selective Serotonin Reuptake Inhibitors] and SNRIs [Selective Norepinephrine Reuptake Inhibitors]), anticonvulsants (gabapentin), and antihypertensives (clonidine) have been used. Of these, antidepressants seem to be most effective and result in an almost immediate reduction in symptoms. Antidepressants commonly used include the SSRIs paroxetine, fluoxetine, citalopram and the SNRI venlafaxine.¹



1. Umland EM. Treatment strategies for reducing the burden of menopause-associated vasomotor symptoms. *JMCP*. 2008; 14(3):S14-S19.
2. Wick JY. Alternatives to HRT for the treatment of hot flashes. *Pharmacy Times*. 2008; 74(3):50-52.

Use of Hormone Replacement Therapy

HRT is not a quick fix for perimenopausal symptoms. While HRT is very effective for treating hot flashes and night sweats and preventing postmenopausal osteoporosis, the benefits often do not outweigh the risks. Results from the Women's Health Initiative found that combination estrogen/progestin therapy increases the risk of stroke by 41% and patients taking combination therapy have twice the risk of dementia, including Alzheimer's disease, as those on placebo. In patients taking estrogen alone, the risk of stroke, venous thromboembolism, pulmonary embolism, and dementia was also increased and there was no change in the risk of heart disease or colorectal cancer. These findings have led to the following recommendations from the



National Institutes of Health (NIH):

- If HRT is used, the benefits should outweigh the potential risks.
- For osteoporosis prevention, consider other therapeutic options first.
- HRT should not be used to prevent cognitive disorders such as Alzheimer's disease or memory loss.
- HRT should be used at the lowest doses for the shortest duration.

U.S. Department of Health and Human Services. Facts About Menopausal Hormone Therapy. National Institutes of Health, National Heart, Lung, and Blood Institutes; 2002 Oct (Revised June 2005). NIH Publication No.: 05-5200.

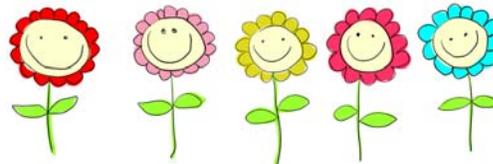
What about lifestyle?

Lifestyle modifications can help alleviate the symptoms associated with menopause. Wearing natural fibers such as cotton, dressing in layers, sipping cold beverages, avoiding hot foods and beverages may help with hot flashes. Physical activity and relaxation techniques can reduce stress and improve mood. Herbal therapies such as soy, black cohosh, and vitamin E have been reported to control mild symptoms but evidence is inconclusive.¹ Lifestyle measures can also help prevent the development of osteoporosis. Maintaining adequate calcium and vitamin D intake, frequent weight-bearing exercise, reducing alcohol intake and quitting smoking are all very important for bone health.²



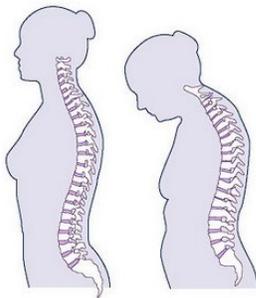
1. Wick JY. Alternatives to HRT for the treatment of hot flashes. *Pharmacy Times*. 2008; 74(3):50-52.
2. Poole KES, Compston JE. Osteoporosis and its management. *BMJ* 2006;333;1251-1256.

Did you Know....



One in two women over the age of 50 will be affected by a fracture caused by osteoporosis. Osteoporosis is a condition resulting from reduced bone mass and can lead to a loss of bone strength and a higher risk of fracture. The risk of osteoporosis in women is highly related to the estrogen deficiency associated with menopause. Other factors putting women at higher risk include lower peak bone mass and longer life span.¹ Osteoporosis commonly presents as a bone fracture, but sometimes can present

Osteoporosis in the vertebrae



as backache, height loss, or spinal deformity. It is diagnosed by a DXA scan, but fractures can also be predicted by also assessing other risk factors apart from a low bone mineral density. The options for managing osteoporosis have expanded greatly in the past few years. Current pharmacological treatments include the bisphosphonates alendronate (Fosamax), risedronate (Actonel), ibandronate (Boniva), and zoledronic acid (Reclast), selective estrogen receptor modulators raloxifene (Evista), calcitonin (Fortical and Miacalcin), parathyroid hormone (Forteo), and hormone replacement therapies (many available).²

Alendronate and risedronate are considered first line for postmenopausal osteoporosis because they have been proven to prevent vertebral and non-vertebral fractures (including hip fractures)^{3,4}. Cost and patient preference are also important considerations when choosing the most appropriate therapy.¹

1. Poole KES, Compston JE. Osteoporosis and its management. *BMJ* 2006;333;1251-1256.
2. The North American Menopause Society [homepage on the Internet]. Cleveland: c2008 [updated 2008 July 18]. Government-Approved Postmenopausal Osteoporosis Drugs in the United States and Canada [updated 2007 October; cited 2008 August 20]. Available from: <http://www.menopause.org/otcharts.pdf>
3. Black D, Cummings S, Karpf D, Cauley JA, Thompson DE, Nevitt MC, et al. Randomised trial of effect of alendronate on risk of fracture in women with existing vertebral fractures. *Lancet* 1996;348:1535-41.
4. Harris ST, Watts NB, Genant HK, McKeever CD, Hangartner T, Keller M, et al. Effects of Risedronate Treatment on Vertebral and Nonvertebral Fractures in Women with Postmenopausal Osteoporosis. *JAMA* 1999;282:1344-1352.

Focus on New Therapies: Reclast® (zoledronic acid)

Reclast® (zoledronic acid), a bisphosphonate manufactured by Novartis Pharmaceuticals, is new to the list of available treatments for post-menopausal osteoporosis and is the only one that works with just one annual dose. Along with adequate calcium and vitamin D, zoledronic acid will help strengthen bones and reduce risk of fracture for one full year! Treatment with zoledronic acid requires administration by a health professional and at least 15 minutes to complete the intravenous injection. Patients should be instructed to drink plenty of water before receiving the injection and to maintain 1200 mg calcium and 400-800 IU of vitamin D intake daily while on zoledronic acid therapy.¹ Patient preferences should always be taken into account when choosing the best therapy for postmenopausal osteoporosis, but zoledronic acid provides a new option for patients and has been shown to help protect from hip, vertebral, and other fractures.²

1. Reclast [homepage on the Internet]. Novartis Pharmaceutical Corporation; c2008 [cited 2008 Aug 22]. Available from www.reclast.com.
2. Lyles KW, Colon-Emeric CS, Magaziner JS, Adachi JD, Pieper CF, Mautalen C, et al. Zoledronic Acid and Clinical Fractures and Mortality after Hip Fracture. *N Engl J Med* 2007;357:1799-809.

Try This Bone Healthy Recipe for Fruit Yogurt Pudding!



- ¾ c. fresh fruit
- 2 tsp. lemon juice
- ½ c. plain or vanilla low fat yogurt
- ½ c. low-fat cottage cheese
- 2 tsp. honey
- ½ tsp. vanilla

Line the bottom of a bowl with fresh sliced fruit. Sprinkle fruit with lemon juice. Whip together yogurt, cottage cheese, honey and vanilla. Cover the fruit with the yogurt mixture. Refrigerate for several hours before serving. Makes 3 servings.

Reclast [homepage on the Internet]. Novartis Pharmaceutical Corporation; c2008 [cited 2008 Aug 22]. Available from www.reclast.com.

The Last Dose

What could be more beautiful than a dear old lady growing wise with age? Every age can be enchanting, provided you live within it.

-- Brigitte Bardot



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