# **NIH News in Health**

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## Inside News: 3 Prostate Problems... 4 Chronic Fatigue Syndrome... Long-Distance Caregiving... Bone Resource Center

# Mystified by Menopause? A Major Life Transition

Menopause—it's a transition that looms large in the minds of many women as they approach age 50. It's sometimes called the "change of life." Menopause marks the end of menstrual periods and fertility.

It can be a challenging time, physically and mentally. Familiar concerns include hot flashes, trouble sleeping and mood changes, but symptoms can vary greatly for each woman. Many women don't need treatment. For those bothered by symptoms, choosing the best treatment can be confusing. Different therapies have benefits and risks that need to be weighed carefully.

Knowledge about menopause has grown significantly over the last 2 decades. Large NIH-funded studies of women before, during and after menopause have given new insights into how menopause proceeds. New treatment options are being developed, and long-standing therapies are



## Postmenopausal

After menopause. Postmenopause begins at the last menstrual period and lasts the rest of your life.

# Hormones

Molecules sent through the bloodstream to signal another part of the body to grow or react a certain way.

# Cognitive

Related to the ability to think, learn and remember.

under more thorough evaluation.

"This ongoing research is necessary because there are 40 million menopausal or **postmenopausal** women right now in this country, and a growing number are entering menopause each year," says Dr. Howard N. Hodis, a cardiovascular and menopause researcher at the University of Southern California.

Menopause is defined as the final menstrual period. On average, women have their last period around age 51, but it can also occur in their 40s or late 50s. Symptoms usually begin to appear several years before menopause. This time of change called the menopausal transition, or perimenopause—extends to 1 year after your final period.

During perimenopause, levels

of estrogen and progesterone—2 female hormones made in the ovaries—go up and down irregularly. This leads to changes in menstrual periods. The fluctuation in hormone levels that begins during perimenopause can affect many different parts of the body.

Dr. Gail Greendale of the University of California, Los Angeles, is one of the lead researchers in an NIH-funded study that's looking at the many shifts women face during the transition. The study's been following more than 3,000 women for over 15 years, from before menopause to well after. The researchers are monitoring bone health, the heart and blood vessels, the brain, cancer and a variety of symptoms. "Part of our mission is to let women know what's coming—the range of common experiences because it can help them understand

tion," says Greendale. Among the study's many findings, the researchers discovered that thinking can become temporarily muddled during perimenopause. "Our study found that women were not learning information as efficiently as they had before. There was a subtle decline in **cognitive** performance during the transition," says Greendale. But the learning deficits went away once women hit postmenopause. "So there's light at

what's going on during the transi-

continued on page 2



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the end of the tunnel," she says.

Another part of the study looked at mood and found that depressive symptoms—such as feelings of hopelessness, loss of appetite and a persistent sad mood—increase during the transition and continue into postmenopause. During that same period, hot flashes and night

# Wise Choices Managing Menopause

If you have bothersome symptoms, here are some ideas to try:

- If night sweats wake you, sleep in a cool room or with a fan on.
- When a hot flash starts, go somewhere cool.
- Dress in layers that you can take off if you get too warm.
- Use sheets and clothing that let your skin "breathe."
- Have a cold drink (water or juice) when a flash begins.
- Keep track of when hot flashes occur so you can figure out if something is triggering them. Then avoid those triggers.
- Don't smoke.
- Talk to your doctor about other ways to manage your symptoms, including hormones and another class of medications called serotonin reuptake inhibitors, which have shown promise for some symptoms.

http://newsinhealth.nih.gov/issue/Oct2010

sweats also tend to increase.

"Hot flashes can be severe and highly disruptive. We used to think that they lasted for 2 or 3 years, but our studies have shown that for some women they can last a lot longer—up to 7 or 10 years," says Dr. Sherry Sherman, who oversees the menopause research programs funded by NIH's National Institute on Aging.

For some women, hot flashes and other symptoms can become so troubling that they interfere with daily activities. If this happens, check with your doctor. There are many ways to seek relief. Lifestyle changes, such as exercise or reducing stress, might help. Some women turn to medications—especially menopausal hormone therapy—to reduce symptoms. The therapy may include different hormone combinations and is available in a variety of forms and doses. Some studies, though, have raised questions about the safety of hormone therapy.

Back in the 1990s, hormones were recommended for most women for the rest of lives. Hormones not only relieved symptoms; they were also thought to help prevent heart disease and other conditions. Things changed in 2002, when a large NIHfunded study called the Women's Health Initiative concluded that the overall risks of hormone therapy outweighed the benefits. The therapy—a particular type of estrogen plus progestin—led to fewer bone fractures and less risk for colon and rectum cancer. But it also raised the risk for breast cancer, heart attack, stroke and blood clots in the legs

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For more about menopause, see our links online: http://newsinhealth.nih.gov/issue/Oct2010/Feature1

and lungs. In 2004, the study found a lower risk of bone fractures in women using only estrogen, but an increased risk of stroke.

Further analysis suggested that some health risks may depend on when a woman begins menopausal hormone therapy. "Multiple lines of evidence suggest that if we put women on hormones at a time that is early or close to menopause, there tends to be a benefit to heart health and a reduction in mortality (death rate)," Hodis says. He's heading an NIH-funded study to explore the idea that vascular health might be improved in women close to menopause. Results are expected by 2013.

Today, estrogen remains the most effective medicine approved by the U.S. Food and Drug Administration for treating menopausal symptoms such as hot flashes and night sweats. Because of safety concerns, some experts recommend that physicians prescribe the lowest effective dose for the shortest period necessary.

NIH-funded researchers are evaluating alternatives to hormones, too. "We're looking at mind-body approaches, exercise, different medications, behavioral and alternative medicine approaches," says Sherman. To learn more about NIH-funded studies of menopause, visit ClinicalTrials.gov.

If you're nearing or in the midst of menopause, learn what you can about the transition, consult with your doctor and make an informed decision about what treatment—if any—is best for you. "Each woman is different, and so therapies must be

personalized to each and every woman," says Hodis.

# The Prostate Prognosis Don't Ignore an Uncomfortable Problem

Most men probably don't like thinking about their prostates, but it's worth doing once in a while. Problems with the small gland are common in men past the age of 50. The good news is that most prostate conditions can be successfully treated.

The prostate is about the size of a walnut. It wraps around the urethra, the tube that carries urine out of the bladder. During sexual climax, or ejaculation, the prostate adds fluid to sperm to create semen, which also leaves the body through the urethra.

For men under 50, the most common prostate problem is prostatitis. It can cause a burning feeling when you urinate or an urge to urinate more often. You might have a fever or just feel tired.

Prostatitis is caused by the prostate becoming inflamed or irritated. Some kinds of prostatitis are caused by **bacteria**. If you have bacterial prostatitis, your doctor can spot it by looking at your urine through a microscope. Bacterial prostatitis can usually be treated with an **antibiotic**.

But most of the time, there's no clear cause for prostatitis. Researchers have yet to identify a clearly effective treatment when the cause is unknown. You may have to work with your doctor to find a treatment that works for you. Changing your diet or taking warm baths may help. No single solution works for everyone.

For men over 50, the most common prostate problem is prostate enlargement, or benign prostatic hyperplasia (BPH). The



# Definitions

Bacteria Tiny organisms that can cause infection or disease.

# Antibiotic

A medicine that kills bacteria.

prostate naturally grows larger as you get older. As it grows, it squeezes the urethra. The pressure can affect bladder control.

BPH can lead to more serious problems, such as urinary tract infections. In rare cases, the constant urination problems can lead to kidney damage.

Several treatments are available for BPH. In recent years, scientists have

developed medicines that can shrink or relax the prostate to keep it from blocking the bladder opening. Researchers have also developed devices that allow doctors to remove parts of the prostate without major surgery. The procedures can usually be done in a clinic or hospital without an overnight stay. More invasive surgery is also an option.

The symptoms of prostate cancer, in which cancer cells form in the tissues of the prostate, can be similar to those of BPH. However, most of the time patients are diagnosed with prostate cancer after results from a blood test prompt a prostate biopsy.

Prostate cancer is the most common cancer in American men after skin cancer. But most men with prostate cancer don't die from it. Many prostate cancers never even cause symptoms or become a serious threat to health. That's because prostate cancer tends to grow more slowly than many other cancers. A prostate tumor may grow for 30 years before it gets large enough to cause symptoms. Several treatment options are available.



For more about prostate problems, see our links online: http://newsinhealth.nih.gov/issue/Oct2010/Feature2 Certain risk factors have been linked to prostate cancer—for example, eating a high-fat diet. NIH-funded scientists are now looking at how prostate cancer can be prevented. NIH also has many research programs aimed at finding treatments for BPH and other prostate problems.

See your doctor right away if something doesn't seem right to you down there. And if you can't urinate at all, get medical help immediately.

# Wise Choices When to See a Doctor

Tell your doctor if you:

- Have a frequent urge to urinate.
- Need to get up many times during the night to urinate.
- See blood in urine or semen.
- Feel pain or burning when you pass urine or ejaculate.
- Have frequent pain or stiffness in lower back, hips, pelvic or rectal area, or upper thighs

# **Health Capsules**

Virus Linked to Chronic Fatigue Syndrome

Scientists have new evidence that viruses may play a role in chronic fatigue syndrome (CFS). This debilitating disease affects millions of people nationwide.

A main symptom of CFS is profound fatigue that persists even after resting. Other symptoms include problems thinking or remembering, sleeping difficulties, achy joints, headache and stomach and digestive problems.

No definite cause for CFS has yet been found. Last year, scientists reported that the blood of patients with CFS contained evidence of a virus called XMRV. It's related to a virus that causes leukemia in mice. However, other research groups were later unable to find traces of similar viruses in CFS patients.

To take a closer look, scientists from NIH and the U.S. Food and Drug Administration searched for DNA evidence of similar viruses in both CFS patients and healthy blood donors. The researchers found traces of the mouse-related viruses in 32 of 37 (86.5%) of the CFS patients, compared to only 3 of 44 (6.8%) healthy donors.

The study doesn't prove that the viruses cause CFS, but suggests there's some type of association. It's possible that viruses related to mouse leukemia virus cause CFS

# Helping Those You Love from Afar

If you're responsible for the care of a loved one who lives far away, you're not alone. About 7 million adults nationwide are long-distance caregivers. Most assist aging parents who live an hour or more away.

Long-distance caregiving can mean many things. You might need to help manage an elderly aunt's money or to arrange for in-home care. You might try to take some pressure off your brother or sister who lives in the same town as your aging relatives. Many long-distance caregivers act as information coordinators, helping to decipher the confusing maze of home health aides and insurance benefits.

A publication called *So Far Away: Twenty Questions and Answers for*  Long-Distance Caregiving addresses some issues unique to long-distance caregiving. Developed by NIH's National Institute on Aging, this 44-page booklet is filled with ideas and resources that can help make caring for a loved one from afar more manageable and less stressful.

So Far Away gives straightforward answers to 20 common questions faced by long-distance caregivers. Get tips for determining if and when help is needed, keeping up with a loved one's medical care and coping with your own feelings of anxiety and guilt.

To view, download or order free print copies, visit www.nia.nih.gov/ HealthInformation/Publications/LongDistance Caregiving, or call 1-800-222-2225. in only some patients. "At this point, we just don't know. We haven't studied enough people," says study coauthor Dr. Harvey J. Alter of NIH's Clinical Center.

Complicating the matter is the fact that no specific test is yet available to confirm that someone has CFS. NIH is now leading an effort to test and develop standardized laboratory techniques for detecting XMRV and related viruses.

# Featured Web Site Bone Resource Center

#### www.bones.nih.gov

It's never too late to improve your bone health. Learn about the important role of bones in your body and what you can do to protect them. Use an interactive tool to get personalized information about your risk for osteoporosis. Find out about other bone disorders. And get ideas for helping kids build strong bones.



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