



## Pain & Women's Health

**W**hen she thinks back on it, Janine Willis figures the nightmare began 20 years ago, when she injured her neck in a relatively minor car accident. But an operation in 1992 seemed to resolve the problem, giving her five fantastic years. Then, in 1997, she re-injured herself pruning an apple tree in her backyard. And the downward spiral began.

For the next eight years, Ms. Willis, now 43, of Castro Valley, CA, visited dozens of health care professionals and underwent numerous treatments. She lost valuable years in her young children's lives and placed her marriage on autopilot as she moved through her days in a fog of pain.

Through it all, too exhausted from the pain and pills to even get out of bed some days, she still had to convince people that her pain was real. Despite the pills, the shots and the physical therapy, despite the fact that doctors couldn't find anything wrong with her neck anymore, she hurt. Really hurt.

She's not alone. A 2005 nationwide survey sponsored by Stanford University Medical Center, ABC News and *USA Today* found that more than half of all Americans have either on-again, off-again pain or daily chronic pain, with about four in 10 saying their pain interfered with work, mood, day-to-day activities, sleep and their overall enjoyment of life.<sup>1</sup>

"Pain is a huge problem, just huge," says Sean Mackey, MD, PhD, an assistant professor of anesthesiology and pain medicine at Stanford University School of Medicine in Palo Alto, CA. "Chronic pain is one of the primary reasons patients go to see health care professionals, and the number one reason people are out of work in our society."

Overall, studies find, about 72 percent of chronic pain sufferers are women, with many chronic pain conditions, like migraine and fibromyalgia, much more common in women than men.<sup>2</sup>

Plus, studies find, women report more serious and more frequent pain than men, as well as pain that lasts longer. Women are also more likely to seek treatment for pain. Yet, women and minorities are also more likely than men to have their pain under treated.<sup>3,4,5</sup>

In fact, despite renewed attention to the topic in recent years, the under treatment of pain—in women and men—continues to be a significant problem in our culture.<sup>3</sup>

"All too often, pain management is poorly done," says Anita J. Tarzian, PhD, RN, a former hospice nurse who is now a health care ethics consultant. "There's so much injustice and ignorance in the health care community about pain, and so many misunderstandings. It's frustrating, and makes me angry when I think of people who could get relief but don't."

### I N S I D E

**3 Pain Perception is Reality**

**4 Pain and Depression**

**5 COX-2 Inhibitors:  
What You Need to Know**

**6 Ages & Stages:  
Migraines & Women**

**7 Ask the Expert:  
Commonly Asked Questions  
About Treating Pain**

**8 Lifestyle Corner:  
Managing the Impact  
of Pain**

Volume 27  
Number 3

Published six times a year by  
the National Women's Health  
Resource Center  
157 Broad Street, Suite 315  
Red Bank, NJ 07701

1-877-986-9472 (toll-free)

[www.healthywomen.org](http://www.healthywomen.org)



**PRESIDENT AND CEO**  
**Amy Niles**

**EDITORIAL DIRECTOR & MANAGING EDITOR**  
**Heidi Rosvold-Brenholtz**

**DIRECTOR, E-HEALTH STRATEGY & WEB DEVELOPMENT**  
**Emily Van Ness**

**DIRECTOR OF MARKETING**  
**Elizabeth A. Battaglini, RN**

**DIRECTOR OF COMMUNICATIONS**  
**Beverly A. Dame**

**WRITER**  
**Debra L. Gordon**

**NWHRC MEDICAL ADVISOR**  
**Pamela Peeke, MD, MPH**  
Bethesda, MD

**WOMEN'S HEALTH ADVISORS**

**Sarah E. DeRossett, MD, PhD**  
Assistant Clinical Professor of Neurology  
Emory University  
Neurology and Headache Specialists of Atlanta  
Atlanta, GA

**Sean Mackey, MD, PhD**  
Associate Director, Pain Medicine Division  
Stanford University School of Medicine  
Stanford, CA

**John Meyerhoff, MD**  
Rheumatologist and Assistant Professor of Medicine  
Johns Hopkins University School of Medicine  
Baltimore, MD

**Anita J. Tarzian, PhD, RN**  
Health Care Ethics and Research Consultant  
Baltimore, MD

For subscription inquiries, address changes or payments,  
call: 1-877-986-9472 (toll-free)  
or email: [info@healthywomen.org](mailto:info@healthywomen.org).

Write: National Women's Health Report,  
157 Broad Street, Suite 315, Red Bank, NJ 07701

The National Women's Health Report provides health information for women interested in making informed decisions about their health. This information does not suggest individual diagnosis or treatment. This publication is not a substitute for medical attention. The publisher cannot accept responsibility for application of the information herein to individual medical conditions. The National Women's Health Resource Center does not endorse or promote any medical therapy or device. Opinions expressed by individuals consulted for this issue do not necessarily reflect those of the Resource Center.

© 2005 NWHRC. All rights reserved. Reproduction of material published in the National Women's Health Report is encouraged with written permission from NWHRC. Write to address above or call toll-free number.

## **PAIN & WOMEN'S HEALTH** continued from page 1

Dr. Mackey is a little more optimistic. "We're doing better than we used to," he says, but he admits, "We still have a tremendous way to go." On the bright side, he notes, "we're starting to get the message out that chronic pain should be viewed as a disease in and of itself, and not just as a symptom of a disease."

### **Defining Pain**

So just what is pain? Well, that depends on who you are, where you are, how you were raised and what you're doing when the pain strikes.

"Pain is, by its very nature, a subjective experience," says Dr. Mackey. "It's not like treating diabetes or hypertension, where we can measure blood pressure and blood sugar and directly correlate it with the symptoms."

Acute pain is pain related to a specific cause, like burning your hand or breaking a leg. It occurs when electrical signals from the damaged tissue travel to the brain in a process called nociception. The pain itself doesn't occur until those signals hit the brain. Or, as Dr. Mackey likes to say, "No brain, no pain."

With chronic pain, however, the perception of pain can exist without the electrical stimulus. So, for instance, say you had a back injury that has now healed. But you still have the pain. That's because your nervous system is now generating and sending electrical signals on its own to the brain, so you continue to perceive pain. It's as if the feedback loop from the brain to the tissue and back again has become stuck in the "on" position.

Sometimes, both chronic and acute pain occur together, as with cancer pain. For Ms. Willis, the pain felt like being trapped and continually out of control. The worst part wasn't just the pain itself, but its effect on her life. "Your family falls apart, your house falls apart," she says.

Although she took numerous medications for the pain, the treatment was often as debilitating as the pain itself,

leaving her tired and foggy. "I used to tell my doctors I felt like I was living my life in Jello," she says.

And her doctors, while well-meaning, could often be quite condescending. "They'd say, 'Your family is going to have to realize that you just can't participate like you used to.' And I'd say, 'No. That's not how I want to live my life. I'm not going to accept this.'"

Because she wouldn't settle for less, she was often labeled a "bad patient," Ms. Willis says.

That's not unusual, says Dr. Tarzian, who wrote a seminal review article on the way the medical profession treats women with chronic pain. For instance, she noted, research finds that women in chronic pain experience "disbelief or other obstacles at their initial encounters with health care providers," and that they're more likely than men to be given tranquilizers and antidepressants for the pain than pain medication.<sup>3</sup>

To reduce your risk of that type of encounter and insure your pain is treated seriously, Dr. Tarzian suggests women take these steps:

- Educate yourself about your pain and treatment options to help build your confidence when talking with health care professionals.
- Be prepared for a physician's reluctance to prescribe opiates, and be ready with information to counter that reluctance, if opiates are an appropriate treatment option.
- Know that there almost always are options that can improve your quality of life and ability to function if you experience chronic pain, though there's not always a guarantee that treatment will significantly reduce or eliminate it.
- Ask a friend or family member, even another medical professional, to help you get what you need, if you don't feel you can speak up for yourself.

And if you have a bad experience with a medical professional, she suggests writing a letter to the state medical board. Medical boards are just beginning to sanction doctors for under treating pain these days.

### Treating the Pain

Here again, women differ from men. Studies find that women differ in their response to some pain medications, says Dr. Mackey, specifically opiates, which seem to work best in men. Yet one class of opiate (nalbuphine [Nubain] and butorphanol [Stadol]) that binds to certain brain receptors seems to work best in women. Although the data is still preliminary, says Dr. Mackey, “clearly women are wired differently from men, and their response to medications may turn out to be much different.”

That’s one reason an individualized treatment plan for chronic pain is so important. Today, says Dr. Mackey, pain experts focus on four main areas from which to mix and match treatments: pharmacologic management, physical management, interventional management and psychological and behavioral management.

### Pharmacologic Pain Management

Medications for treating acute and chronic pain range from aspirin (and other non-steroidal anti-inflammatory drugs) to muscle relaxants and opiates. Opiates, which all bind to specific receptors in the central nervous system, are available in a variety of different delivery methods: oral, injectable, rectal, transdermal (e.g., fentanyl patches) and intraspinal (e.g., implanted morphine pumps). Additionally, numerous drugs approved for other medical conditions have been found to work for pain,

including antidepressants, antiarrhythmics (drugs used to correct irregular heart beat) and anticonvulsants (drugs used to prevent seizures). In fact, the first antidepressant approved by the U.S. Food and Drug Association (FDA) specifically for the treatment of painful diabetic peripheral neuropathy, duloxetine (Cymbalta), hit the market in late 2004.

### Physical Pain Management

This includes such things as acupuncture, chiropractic, occupational and physical therapy, exercise and massage. All have various benefits, depending on the individual and the type of pain. Additionally, practitioners help educate individuals about body mechanics, pacing activities and setting goals to manage pain symptoms.

Several studies have demonstrated the effectiveness of acupuncture in chronic pain. An analysis of 22 studies on acupuncture found it relieved lower back pain better than no treatment at all, or a placebo treatment,<sup>10</sup> while other studies find it also works well for osteoarthritis of the knee.<sup>11</sup> Small wonder that the Stanford/ABC/USA *Today* poll on pain found five percent of American adults have turned to acupuncture for pain relief.<sup>1</sup>

Another common treatment with good evidence behind it is transcutaneous electrical nerve stimulation, or TENS, in which a device delivers a mild electrical current to the outside of the body in the painful area, interfering with pain messages. The effects can last for hours or even days after the treatment ends in some people.

### Interventional Pain Management

This is probably one of the fastest growing areas of pain management. It includes things as simple as

injections of steroids directly into the spinal cord and injections of pain medication directly into the nerve triggering the pain to more invasive technologies like spinal cord stimulators, or neuromodulation, in which an implanted device sends a mild electrical current through the nerves to block pain signals from hitting the brain. This is the treatment that finally relieved Ms. Willis’ pain.

### Psychological and Behavioral Pain Management

This involves various mind/body therapies ranging from cognitive behavioral therapy (CBT), in which you learn how your thoughts and feelings change your pain and how to control them, to relaxation

*continued on page 4*

**Fewer than half of all patients who suffer from migraines receive the proper diagnosis. The result? Significant disability for migraine sufferers.**

## Pain Perception is Reality

When it comes to pain, it’s important to remember that perception is reality. Groundbreaking studies using a specialized MRI enable researchers to actually see pain in the brain. And that, in turn, is leading to some pretty amazing findings.

For instance, studies find that pain intensifies when you think about your pain. But, distracting yourself with music or even pleasant odors can reduce your perception of pain.<sup>6,7,8</sup> Even anticipating pain—thinking that if you get up off the couch it’s going to hurt—can cause mood changes and behavioral adaptations (i.e., you never get off the couch) that make your pain worse.<sup>9</sup>

Sean Mackey, MD, PhD, and his colleagues at Stanford study two major areas of the brain involved with the perception of pain. One handles the sensory aspect of the pain—how it feels, the location, its quality and character—while the other is involved with the emotional aspect of pain, i.e., how you perceive the suffering from the pain.

Interestingly, this latter area of the brain also processes basic emotions such as fear, hate, love and anxiety. “So when we’re fearful or angry or stressed, these emotional areas of the brain get revved up and, lo and behold, they amplify the same areas of the brain involved with the processing of pain,” says Dr. Mackey. And, the pain gets worse.

The Stanford researchers have discovered something else: Chronic pain actually rewires the circuits in the brain as a consequence of the pain itself. With treatment, however, these changes can be reversed.

**Chronic pain actually rewires the circuits in the brain as a consequence of the pain itself. With treatment, however, these changes can be reversed.**

techniques, including meditation, mental imagery and biofeedback. One analysis of 25 clinical trials examining an array of mind/body interventions in managing rheumatoid arthritis found significant benefits in this approach, particularly for people recently diagnosed.<sup>12</sup> Additionally, a National Institutes of Health Technology Assessment Panel found moderate to strong benefit for these techniques in the treatment of chronic pain.

Often, several mind/body approaches work best. For instance, in one study of osteoarthritis patients, those who learned about their disease, engaged in physical activity, problem solving, relaxation, and developed skills to communicate more effectively with family and health care professionals, reduced their pain and disability an average of 15 to 20 percent. Other studies find similar benefits using mind/body therapies for fibromyalgia,

back pain and other forms of chronic and acute pain.<sup>12</sup>

Even playing music can help, with studies finding it reduces the perception of pain in older adults with chronic osteoarthritis and in cancer patients. When played during or after surgery or painful medical procedures, patients have less pain and use less pain medication.<sup>13</sup>

Overall, studies find that using several techniques together (physical, pharmacologic, interventional and psychological/behavioral) in an integrated comprehensive manner provides the best results.<sup>14</sup>

### **Finding Relief**

Despite the range of treatments available, chronic pain sufferers still have difficulty finding health care professionals who can effectively treat their pain. A 1998 survey by the Pain Foundation of America found that one in four have changed doctors at least three times.<sup>15</sup>

Janine Willis lost track of the number of doctors she saw by the time the caseworker her HMO assigned to her case finally got her into the Stanford Pain Clinic.

“Many doctors specialize in only one type of pain treatment. There are few comprehensive pain clinics like Stanford’s, which take a holistic approach to pain management,” she explains.

Ms. Willis spent an entire day at the clinic undergoing evaluation, everything from detailed medical histories to a screening to see if opiate drugs worked for her (they didn’t). Finally, she got what she’d come for—a neuromodulation implant. The device was implanted on March 3, 2005, and as soon as it was turned on, the pain vanished. Today, Ms. Willis controls the level of stimulation herself, adjusting it depending on her pain and activities.

Only now that she can go to her kids’ soccer games, plant the huge vegetable garden the family used to have, and prune and care for the 30 fruit trees on their property, she says, does she realize how many aspects of her life the pain touched.

“Everyone is happy now,” she says. “There is just this new hopefulness.” ✕

### **Resources**

**American Academy of Pain Management**  
[www.aapainmanag.org](http://www.aapainmanag.org)

This professional organization for pain specialists offers consumers a database of pain centers and specialists.

**American Chronic Pain Association**

1-800-533-3231

[www.theacpa.org](http://www.theacpa.org)

Provides support and information about living with chronic pain.

**American Pain Foundation**

1-888-615-7246

[www.painfoundation.org](http://www.painfoundation.org)

Offers “PainAid,” virtual support groups and community and clinical trial resources. Works to increase access to effective pain management.

**American Pain Society**

847-375-4715

[www.ampainsoc.org](http://www.ampainsoc.org)

Offers information on pain-related treatments and research for professionals.

**Cancer-Pain.org**

[www.cancer-pain.org](http://www.cancer-pain.org)

Provides interactive discussion groups and information to assist cancer-related pain management decision-making.

**National Center of Complementary and Alternative Medicine**

<http://nccam.nih.gov>

Resources and clinical trial information for pain-management therapies such as acupuncture.

**The National Pain Foundation**

[www.painconnection.org](http://www.painconnection.org)

An on-line education and support community for persons in pain, their families and health care professionals.

**Women In Pain**

[www.womeninpain.org](http://www.womeninpain.org)

An initiative designed to ensure the ethical and equal treatment of women in pain.

### **Pain and Depression**

Slightly more than half of chronic pain patients seen in pain clinics also have major depression, and low doses of antidepressants are often prescribed to treat chronic pain.<sup>16</sup> All of which begs the question: which comes first? Does the pain cause the depression or does the depression make the pain worse?

Possibly neither. In one pivotal study of 53 patients (men and women) with fibromyalgia, researchers evaluated the brain scans of the patients as they experienced pain. They found that fibromyalgia patients were much more sensitive to pain than the control group, regardless of whether they were also depressed, a finding that suggests pain and depression are truly separate conditions.<sup>17</sup>

Whether or not pain and depression are inextricably linked isn’t really the issue, says Sean Mackey, MD, PhD, associate director of the Stanford Pain Management Center.

What’s most important, he says, is that both conditions are treated together, rather than only treating the depression in the hope that the pain will go away, or only treating the pain in the hope that the depression disappears.

## COX-2 Inhibitors: What You Need to Know

Pain has been in the headlines lately, ever since two of the most common prescription pain relievers, rofecoxib (Vioxx) and valdecoxib (Bextra), were pulled from the market when studies found they could increase the risk of heart attack.

**T**he enhanced scrutiny of these drugs, which belonged to the COX-2 class of pain-killers, also sparked closer investigation of other non-steroidal anti-inflammatory painkillers (NSAIDs), including common over-the-counter (OTC) medications such as naproxen (Aleve) and ibuprofen (Motrin). The result? Significantly stronger warnings now are on most OTC and prescription non-narcotic painkillers, including aspirin.<sup>18</sup>

Almost overnight, it seemed, millions of Americans found themselves either without the medications they'd come to rely on for pain relief or with numerous questions and concerns about the medications they continued to take. In fact, a National Women's Health Resource Center online survey found 66 percent of respondents were at least somewhat confused about which OTC pain reliever to take.

But what seems to have been missed in all the doom-and-gloom headlines, according to Steven Chen, PharmD, an assistant professor of clinical pharmacy at the University of Southern California School of Pharmacy in Los Angeles, is the fact that all drugs have potential risks, requiring careful monitoring. In today's regulatory climate, for example, some experts doubt that even aspirin with its risk for severe stomach bleeding would be approved as a new drug.<sup>19</sup>

Plus, experts note, there are still dozens of other NSAIDs on the market. "No one NSAID has ever been proven to be consistently better than any other," says John Meyerhoff, MD, a rheumatologist and assistant professor of medicine at Johns Hopkins University School of Medicine in Baltimore. In fact, despite the hype about the ability of the COX-2s to save your stomach, only one—rofecoxib (Vioxx)—had any evidence suggesting that it caused fewer stomach ulcers than other NSAIDs.

The key, notes Dr. Chen, is to take the right type of pain reliever for your condition. He always recommends starting with acetaminophen (Tylenol and generic brands), shown to be effective in managing osteoarthritis pain without the gastrointestinal bleeding risks of NSAIDs. One caveat: Avoid acetaminophen if you have any liver damage or are a heavy drinker (three or more drinks a day).

Acetaminophen has one other drawback: it doesn't help with the pain associated with inflammation. For that, Dr. Chen recommends non-acetylated salicylates such as salsalate (Disalcid) or diflunisal (Dolobid) before jumping to prescription NSAIDs. "Prescribers forget this class of drugs because of all the heavy advertising for the NSAIDs," he says, "but they're much safer than traditional NSAIDs." They don't harm the stomach's protective lining, and they appear less

likely to contribute to kidney problems, as traditional NSAIDs or long-term use of acetaminophen can. Their only drawback? There are no OTC forms.

Additionally, pain medication that's applied directly to the pain site, including lidocaine patches and capsaicin ointment, may also help with arthritis pain, as can several antidepressants, particularly if you also have pinched nerves. Plus, Dr. Meyerhoff notes, the nutritional supplements glucosamine and/or chondroitin could reduce joint pain, although they won't restore the joint.

Then there are lifestyle approaches. Losing weight can reduce the pain of osteoarthritis by relieving pressure on the joints, and strengthening your thigh muscles can help relieve pain from osteoarthritis of the knee.

Don't write off the entire COX-2 inhibitor class of drugs, says Dr. Chen. Although the FDA has decided that all NSAIDs are associated with gastrointestinal and cardiovascular risk, the risk appears to be linked to how much the drug affects, or selects, the COX-2 enzyme versus the COX-1 enzyme. "Based on this, Vioxx and Bextra may be associated with a higher risk of a heart attack because they are more potent inhibitors of COX-2 enzymes than Celebrex."

So, don't be afraid of taking over-the-counter NSAIDs or even acetaminophen for pain, Dr. Chen offers. "They have been around for a long time and, when taken at OTC doses, they appear to be safe." ✕

**Women report more serious and more frequent pain than men, as well as pain that lasts longer. . . Yet, women and minorities are also more likely than men to have their pain under treated.**

## Migraines & Women

If you want to know why migraine headaches are three times more prevalent in women than men, affecting an estimated one in five women, think hormones.<sup>20</sup>

**R**esearchers don't know for sure why reproductive hormones and migraines are so intertwined, says migraine expert Sarah DeRossett, MD, PhD, an assistant clinical professor of neurology at Emory University in Atlanta. She suspects it may be that the rise and fall of estrogen levels serves as a trigger for migraines in much the same way as red wine, aged cheese and flashing lights.

Consider these examples of a possible hormone-migraine link:

- Migraines are more common in boys before puberty.
- Migraines occur less often during the first trimester of pregnancy.
- While about 10 to 15 percent of female migraine sufferers have migraines only during their periods, the majority of women who have migraines experience them during their periods.
- The number of migraines usually declines and may cease altogether after menopause.

### Under Diagnosed and Under Treated

Fewer than half of all patients who suffer from migraines receive the proper diagnosis.<sup>21</sup> The result? Significant disability for migraine sufferers, with the American Migraine Study II finding that 92 percent of women with severe migraine had some headache-related disability, and about half were severely disabled during an episode, requiring bed rest.<sup>22</sup>

The irony is that excellent treatments are available these days to not only relieve the migraine, but prevent it in the first place. Yet one 1999 study found that only four out of 10 people with migraines used prescription medication for their headaches.<sup>21</sup>

The most commonly prescribed medications for migraine are the triptans, a class of drugs first approved in the early 1990s. Today, there are seven triptans, including sumatriptan (Imitrex), zolmitriptan (Zomig) and eletriptan (Relpax). They work on serotonin receptors in the membranes covering the brain, constricting blood vessels to prevent the sensation of pain.

One thing many patients don't realize, says Dr. DeRossett, is that the triptans work best when taken at the first sign of a migraine. "People fiddle around a lot and under treat their headache (with over-the-counter drugs)," she says. By the time they turn to a stronger medication, it's too late to halt the headache before it hits full strength. So if you're prone to migraines, she recommends taking your prescribed medication at the first sign of pain; don't wait to "prove" that it's a migraine.<sup>23</sup>

For women with two or more headaches a week, a variety of preventive options are available. These include the anti-epileptic drugs topiramate (Topamax) and sodium valproate (Depakote), tricyclic antidepressants such as amitriptyline (Elavil) and nortriptyline (Pamelor), beta blockers such

as propranolol (Inderal), calcium blockers such as verapamil, and the antihistamine cyproheptadine (Periactin) in children.<sup>23</sup>

Some headache experts also use Botox injections to prevent migraines, says Dr. DeRossett, with good success. And don't forget complementary and alternative medicine therapies like biofeedback and relaxation therapies. A 1990 meta-analysis comparing the effectiveness of relaxation/biofeedback with drug therapy (propranolol) found both cut the number of headaches by 43 percent.<sup>12</sup>

Certain lifestyle changes can also help prevent migraines. New studies find that obesity is independently associated with migraine, says Dr. DeRossett, so losing weight may help. Other studies find that emotional stress, lack of sleep or oversleeping, skipping meals, certain foods (aged cheese, preserved meats), alcohol (particularly red wine and beer) and prolonged physical exertion can trigger migraines.

The main message for women, says Dr. DeRossett, is that migraines are very treatable, possibly preventable and almost always improve after menopause. If you've tried at least two preventative medications and are still having frequent headaches, and/or you still have debilitating migraines regardless of prescribed medications, it's time to see a headache specialist. Not only do they have access and knowledge about numerous drugs already on the market, they can often get you into clinical trials for new treatments. "There's more coming in the pipeline," Dr. DeRossett says. "This is going to be more and more of a treatable condition." ✕

## Commonly Asked Questions About Treating Pain

**Q** My 74-year-old father has chronic pain from an old war injury that significantly affects his quality of his life. Yet his doctor doesn't want to prescribe anything stronger than over-the-counter medications for fear that his system won't be able to handle it. What should he do?

**A** As people age, they tend to react to medications differently because their metabolisms change. For instance, we often prescribe the opiate Darvocet to people who need something stronger than an anti-inflammatory because it's a fairly weak narcotic. But as people get older, the half life of the drug (meaning the time it remains in their system) increases, so if you're not careful it can accumulate in the blood, leading to psychiatric and neurological problems.

Another problem we see in the elderly is that many are on several medications, sometimes up to 15 different drugs. So doctors are often reluctant to add more drugs for an older person because we don't know how they will affect the person, particularly for those

conditions in which we know the medication isn't going to change the course of the disease, like osteoarthritis.

The important thing is to sit down with the patient and talk about the pain, when it occurs and how bad it is. Sometimes you find that something like acetaminophen (Tylenol) will work, but patients have to understand that they have to take it consistently, several times a day, or the pain returns.

Having said that, if your father feels that his doctor is ignoring his concerns, or the pain is getting worse, it might be time to seek a second opinion. And don't discount opiates altogether; several studies find they can be safe in older adults.<sup>24</sup>

**Q** When is it time to find a pain specialist?

**A** If you're not getting enough pain relief from your primary care doctor or the pain has affected your life to the extent you are not able to do the things you used to do, it's time to see a specialist.

Unfortunately, there aren't many. So far, the American Board of Pain Medicine has certified just 1,700 doctors as pain specialists—about one for every 23,500 people who need care.<sup>25</sup>

What kind of specialist you need depends on your pain. If it's related to osteoarthritis, lupus or rheumatoid arthritis, for instance, you should see a rheumatologist. If your pain is chronic and unrelated to any underlying disease, then you might want to seek out a pain clinic.

(See Resources on page 4 for information on pain centers and specialists.)

—John Meyerhoff, MD  
Rheumatologist and Assistant Professor of Medicine  
Johns Hopkins University School of Medicine  
Baltimore, MD

## References

- 1 Physical pain aggravates majority of Americans, according to poll. [press release]. Stanford: Stanford University Medical Center; May 9, 2005.
- 2 Campbell PF. Relieving endometriosis pain: why is it so tough? *Obstet Gynecol Clin North Am.* 2003 Mar;30(1):209-20.
- 3 Hoffmann DE, Tarzian AJ. The girl who cried pain: a bias against women in the treatment of pain. *J Law Med Ethics.* 2001 Spring;29(1):13-27.
- 4 Joranson DE, Gilson AM, Dahl JL, Haddox JD. Pain management, controlled substances, and state medical board policy: A Decade of Change. *Journal of Pain and Symptom Management.* 2002;23(2):138-147.
- 5 Green CR, Anderson KO, Baker TA, et al. The unequal burden of pain: confronting racial and ethnic disparities in pain. *Pain Med.* 2003 Sep;4(3):277-94.
- 6 Ploghaus A, Narain C, Beckmann CF, Clare S, Bantick S, Wise R, Matthews PM, Rawlins JN, Tracey I. Exacerbation of pain by anxiety is associated with activity in a hippocampal network. *J Neurosci.* 2001 Dec 15;21(24):9896-903.
- 7 Bantick SJ, Wise RG, Ploghaus A, et al. Imaging how attention modulates pain in humans using functional MRI. *Brain.* 2002 Feb;125(Pt 2):310-9.
- 8 Villemure C, Slotnick BM, Bushnell MC. Effects of odors on pain perception: deciphering the roles of emotion and attention. *Pain.* 2003 Nov;106(1-2):101-8.
- 9 Ploghaus A, Tracey I, Gati JS, et al. Dissociating pain from its anticipation in the human brain. *Science.* 1999 Jun 18;284(5422):1979-81.
- 10 Manheimer E, White A, Berman B, Forys K, Ernst E. Meta-analysis: acupuncture for low back pain. *Ann Intern Med.* 2005 Apr 19;142(8):651-63. Review.
- 11 Vas J, Mendez C, Perea-Milla E, et al. Acupuncture as a complementary therapy to the pharmacological treatment of osteoarthritis of the knee: randomised controlled trial. *BMJ.* 2004 Nov 20;329(7476):1216.
- 12 Astin JA. Mind-body therapies for the management of pain. *Clin J Pain.* 2004 Jan-Feb;20(1):27-32.
- 13 Kemper KJ, Danhauer SC. Music as therapy. *South Med J.* 2005 Mar;98(3):282-8.
- 14 Flor H, Fydrich T, Turk D. Efficacy of multidisciplinary pain treatment centers: a meta-analytic review. *Pain.* 49(1992) 221-230.
- 15 Pain Facts: An Overview of American Pain Surveys. American Pain Foundation. [www.painfoundation.org](http://www.painfoundation.org).
- 16 Depression and pain comorbidity: a literature review. *Arch Intern Med.* 2003 Nov 10;163(20):2433-45.
- 17 Giesecke T, Gracely RH, Williams DA, et al. The relationship between depression, clinical pain, and experimental pain in a chronic pain cohort. *Arthritis Rheum.* 2005 May;52(5):1577-84.
- 18 FDA Regulatory actions for the COX-2 Selective and Non-Selective Non-Steroidal Anti-inflammatory drugs. US Food and Drug Administration. [www.fda.gov/cder/drug](http://www.fda.gov/cder/drug).
- 19 Brody JE. The Perils of Pain Relief Often Hide in Tiny Type. *The New York Times.* May 3, 2005.
- 20 Johnson CJ. Headache in women. *Prim Care.* 2004 Jun;31(2):417-28, viii.
- 21 Diamond ML. The role of concomitant headache types and non-headache co-morbidities in the underdiagnosis of migraine. *Neurology.* May 2002; 58(9 Suppl 6): S3-9
- 22 Allais G, Benedetto C. Update on menstrual migraine: from clinical aspects to therapeutical strategies. *Neuro Sci.* 2004 Oct;25 Suppl 3:S229-31.
- 23 Loder E. Migraine diagnosis and treatment. *Prim Care.* June 2004; 31(2): 277-92, vi, 31(2): 277-92, vi, 34 Buntin-Mushock C, Phillip L, Moriama K, Palmer PP. Age-dependent opioid escalation in chronic pain patients. *Anesth Analg.* 2005 Jun;100(6):1740-5.
- 25 Sternberg S. Chronic Pain: The Enemy Within. *USA Today.* May 9, 2005.
- 26 Tall JM, Raja SN. Dietary constituents as novel therapies for pain. *Clin J Pain.* 2004 Jan-Feb;20(1):19-26.
- 27 Nadler SF. Nonpharmacologic management of pain. *J Am Osteopath Assoc.* 2004 Nov;104(11 Suppl 8):S6-12.
- 28 Smith MT, Haythornthwaite JA. How do sleep disturbance and chronic pain inter-relate? Insights from the longitudinal and cognitive-behavioral clinical trials literature. *Sleep Med Rev.* 2004 Apr;8(2):119-32.
- 29 Onen SH, Alloui A, Gross A, et al. The effects of total sleep deprivation, selective sleep interruption and sleep recovery on pain tolerance thresholds in healthy subjects. *J Sleep Res.* 2001 Mar;10(1):35-42.

## Managing the Impact of Pain

When I'm treating a woman coping with any kind of chronic pain condition, I'm always struck by one thing: How the pain affects her entire life.

It's not just the physical ramifications of pain itself (i.e., you have low back pain so digging in the garden is out), but the way pain and the medication used to treat it saps your energy and strength.

I mention this because I'm about to recommend several lifestyle-related changes that may help with your pain. However, they are not for everyone. For instance, I know several women whose partners keep telling them to just get off the couch and exercise and their pain will disappear. And while it's true that physical activity is an excellent coping mechanism, sometimes the pain is simply too great for this to be an option.

What I don't want is for you to beat yourself up if you find you can't manage some of these recommendations. However, keep in mind that finding the right kind of medication or surgical treatment might be enough to enable you to try. And the combination of approaches—medical and lifestyle—may work better than any single approach for pain relief.

While there are numerous non-medical approaches to treat pain, including complementary medicine therapies like yoga, massage and acupuncture, some basic activities of daily living can also play a role. These include:

**Diet.** The impact of diet on pain rests on the fact that inflammation is a major cause of pain. So, the theory goes, if you can reduce the production of inflammatory chemicals in the body, you can reduce the pain.

For instance, studies find that certain antioxidants such as glutathione can help tissue recover from inflammation. One study found that supplementing with the nutrient n-acetyl-cystine, a precursor to glutathione, can reduce pain from nerve damage.<sup>26</sup>

Other dietary-related evidence:<sup>26</sup>

- The nutritional supplements glucosamine and chondroitin sulfate can benefit patients with osteoarthritis.
- Dietary soy and tart cherries contain antioxidants that may reduce neuropathic pain. In fact, cherries, which are high in anti-inflammatory anthocyanins, plant-based chemicals that give the fruit its dark red color, have been linked anecdotally to reduction of pain in arthritis and gout, with animal studies showing it can reduce swelling and inflammation in rats.
- Sweet foods (think chocolate) can stimulate the release of pain-relieving endorphins in the brain.

**Exercise.** For years, we thought bed rest was the ideal treatment for low back pain. Now we know we were wrong. In fact, you're better off staying out of bed if you injure your back or neck. Some studies suggest prolonged bed rest can make things worse by weakening supporting muscles.<sup>27</sup>

Now, I'm not suggesting that you start jogging. Instead, I recommend a slow, steady walk around the block—or to the mailbox, if that's the furthest you can go. One excellent exercise for many joint-related conditions is swimming.

Another benefit of exercise? It might help you lose weight. Since being overweight is one of the most common causes of back pain, weight loss may lead to pain relief.

**Sleep.** Numerous studies find that sleep disturbance is one of the most prevalent problems in patients with chronic pain. But while you might think that the pain itself prevents you from getting a good night's sleep, some studies suggest that poor sleep makes the pain worse.<sup>28</sup> In fact, one study in healthy men found they grew more sensitive to painful stimuli when deprived of sleep.<sup>29</sup>

So talk to your health care professional about steps you can take to improve your rest. That might mean medication, cognitive behavioral therapy, or even changing your daytime habits (cutting out caffeine, eating lightly in the evening, taking the TV out of your bedroom) to insure a better night's sleep. ✕



By Pamela Peeke, MD, MPH  
NWHRC Medical Advisor

Dr. Peeke is a Pew Foundation Scholar in Nutrition and Metabolism, and Assistant Clinical Professor of Medicine at the University of Maryland in Baltimore. She writes about health and lifestyle issues important to all women.