

# Who Feels



# Your Pain?

You, and you alone. Pain is highly personal and often incurable. So it must be managed. And you are the manager.

by John Sedgwick photo: Darryl Estrine

**“If a doctor tells you your pain is all in your head, find a doctor who’ll believe you.”**

—Nelson Hendler, M.D., clinical director of the Mensana Clinic, a diagnostic pain management center in Stevenson, Maryland

**W**hy do some people cheerfully forgo novocaine when having their teeth drilled and filled, while others demand not just novocaine but laughing gas to get them through the ordeal? How can some women go through childbirth without anesthesia, while others plead for an epidural eight hours before the baby is placed in their arms? For that matter, how can an athlete run an entire marathon on a sprained ankle—never feeling the slightest pain until she has crossed the finish line?

Such questions, long matters of popular curiosity, strike at one of medicine’s most enduring mysteries. The short (but frustrating) answer is that pain thresholds and tolerance levels differ widely by individual and, within individuals, by circumstance. Over the years, devilish experiments involving the application of such stimuli as heat, cold or pressure on a (paid) subject’s bare flesh have confirmed a truth long apparent to nonscientists: “The amount of pain people report, how much it bothers them and how well they cope with it—all of that varies remarkably,” summarizes Nathaniel Katz, M.D., a neurologist with the Pain Management Center at Boston’s Brigham and Women’s Hospital.

This simple fact, only recently acknowledged by medical science, has tremendous implications for a trillion-dollar health care system that, in its determination to ease trauma and cure disease, is devoted to eliminating or relieving pain. Although pain centers have now been established in leading hospitals across the land, doctors generally persist in applying a one-size-fits-all approach to pain remedies. Worse, that one size is usually too small.

“We do a lousy job with pain,” concedes Richard B. Patt, M.D., an anesthesiologist at the University of Texas M.D. Anderson Cancer Center in Houston. In 1993, an *Annals of Internal Medicine* survey found that 86 percent of cancer physicians felt that the majority of patients with pain were undermedicated. Nearly half of the doctors also felt that pain control in their own facilities was substandard. This year, the

American Pain Society and the American Academy of Pain Management have finally issued a carefully worded statement, recommending somewhat liberalized standards in the prescription of opioid drugs, also known as narcotic analgesics.

The controversy over the medical use of marijuana—a proven pain-relieving drug in various chronic cases—reflects the medical establishment's traditional Scrooge-like attitude toward treating severe pain. Obviously, it is important to restrict the misuse of recreational drugs. But should this come at the cost of failing to reduce some very real suffering? Already, many doctors feel constrained in their efforts to prescribe adequate pain relief using morphine or other painkillers that, while legal, are potentially addictive. The results can be dire for the patients who have to do without. Harvey L. Rose, M.D., a California-based family practitioner who has for years battled state accusations of excessively prescribing narcotic medications, cites the extreme but telling case of a 28-year-old who suffered persistent mind-numbing

pain after lumbar disk surgery. When his doctor refused to prescribe sufficient painkillers, offering the man antidepressants instead, the patient turned to alcohol and street drugs and finally hanged himself in his garage.

## Pain's great reach

The everyday effects of everyday hurts have a huge impact on the country at large, where all forms of pain, at last count, claim more than 550 million lost workdays a year, at an estimated cost of \$100 billion, not to mention the nearly \$3 billion spent annually on over-the-counter (OTC) pain relievers. Clearly, for millions of Americans, a mismatch exists between pain and painkillers. The U.S. is now experiencing what is often described as an "epidemic" of low back pain, with 31 million sufferers. (Witness the rise of back-pain franchise stores such as Relax the Back or The Better Back.) Some 40 million Americans have arthri-

PREVIOUS SPREAD: HAIR AND MAKEUP: INA VISTICA. THIS SPREAD: PHOTOGRAPHS, DAVIES + STARR.

# Painkiller Primer

With so many over-the-counter (OTC) pain relievers to choose from, selecting the right one for what ails you is enough to give anyone a headache.

Though your best friend may swear that ibuprofen knocks out cramps or that acetaminophen is best for headaches, experts maintain that no medication has been proved to be more effective than another against garden-variety aches and pains. Finding what works best for you is a matter of trial and error.

A few general hints: Take the medication with an eight-ounce glass of water to make sure it dissolves in your stomach, and take it with food to minimize stomach upset. If you don't get relief within the expected time at the recommended dosage (or if your symptoms worsen), consult your doctor. Likewise, if you are pregnant, nursing or scheduled for surgery, consult your doctor before using any medication. And make sure your physician knows when you are taking two or more OTC or prescription drugs simultaneously.

—MARY EBITT GORDON

### OTC PAIN RELIEVERS

	Aspirin (salicylate)	Acetaminophen	Ibuprofen
Found in	Anacin, Bayer, Bufferin, Doan's, Ecotrin, Pamprin, St. Joseph Adult Chewable Aspirin, others 	More than 70 products, including Tylenol, Aspirin-Free Anacin Maximum Strength Tablets, Aspirin-Free Excedrin Caplets 	Advil, Midol IB, Motrin IB, Nuprin, others 
Uses	To reduce fever and relieve discomfort of colds, headache, toothache, backache, muscle ache, menstrual cramps, arthritis	To reduce fever and relieve discomfort of colds, headache, toothache, backache, muscle ache, menstrual cramps and minor arthritis pain	To reduce fever and ease discomfort of colds, headache, toothache, muscle ache, backache, menstrual cramps and arthritis
Dosage	325 to 650 mg—one to two tablets—every four hours	An adult or teenager should take 325 to 500 mg every three to four hours, 650 mg every four to six hours or 1,000 mg every six hours, as needed. When taken for long-term treatment, dose should not exceed 2,600 mg per day.	200 to 400 mg every four to six hours as needed; do not exceed 1,200 mg (six 200-mg tablets) in a day.
Extras	In high doses, aspirin reduces inflammation and arthritis pain. In low doses, it has been shown to reduce the risk of heart attack or certain types of stroke when taken under a doctor's care.	Easier on stomach than other pain relievers. Because it's aspirin-free, it's a good option for people who are allergic to aspirin or who are aspirin-sensitive. (Some OTC products combine this with aspirin.)	Reduces inflammation, thus effective against tendinitis, arthritis. Can help control the initial discomfort of a muscle-strain injury. May inhibit production of prostaglandins, and therefore ease menstrual cramps. Researchers are eyeing a possible link between regular use and a reduced risk of Alzheimer's disease.
Downside	May cause nausea, heartburn, gastrointestinal discomfort, ulcers and, in children and teenagers who have had a viral illness, a rare but severe illness called Reye's syndrome. May exacerbate bleeding in some who take it regularly.	Does not reduce inflammation. Avoid alcoholic beverages if you take more than an occasional one-to-two doses—alcohol and acetaminophen may increase liver damage risk. Avoid long-term use of an acetaminophen/aspirin combination.	May cause stomach upset or ulcers. May affect baby or cause complications during delivery if taken during the last three months of pregnancy. Not to be used by people allergic to aspirin.

tis, and 45 million endure chronic recurrent headaches.





As elusive as the source may be, pain itself can quickly become central to the sufferers' lives. It is not too much to say that those in chronic pain become the pain they feel. "The pain may be isolated, but it affects your whole body," says Julie Hunt, a Minnesota artist who has been disabled by a painful degenerative bone and disk disease in her back that has left her, at age 33, with the spine of a 90-year-old. She is curled up on her side as she speaks to me on the telephone, a pillow wedged between her legs to help her alignment. Not long ago, Hunt began to express her pain in stark black-and-white abstractions drawn in the few hours of the day in which she was able to work. More recently she has added color to her work in the hope that the pictures would look more cheerful. They don't. They depict tortured Munch-like figures that convey her pain with such forceful clarity that several have been bought by pain specialists—to demonstrate that they know whereof they speak. "There are a lot of scream-

ing faces," Hunt says. "A lot of hands reaching out for help."

Perhaps all sufferers should be asked to draw a picture to depict their pain, for no other method can express it as clearly. There is no CT-scan or blood test to discern pain, and no "painometer" to determine just how much it hurts. Most pain specialists today rely on nothing more sophisticated than a zero to 10 rating scale, with a 10 being the worst pain imaginable. Even that, of course, has its limitations. As Dr. Katz points out, "Say you call pulling out a fingernail with hot pincers a 10, well then, what do you call pulling out five fingernails, or all 10?"

Without a bureau of standards for pain, one person's seven may be another person's three. Indeed, the first rule of modern pain management is that the customer is always right. If a patient says her pain is an eight, it is. Pain specialists know that there are "hyperalgesiacs" and "hypoalgesiacs"—those who have a higher than average and lower than average response to a given pain stimulus, whatever its etiology.

Those who are afflicted with fibromyalgia, for example, a

		THE NATURALS	
<p><b>Naproxen sodium</b></p> <p>Aleve</p> 	<p><b>Ketoprofen</b></p> <p>Actron, Orudis KT</p> 	<p><b>Arnica</b></p> <p>(Homeopathic remedy: leopard's bane or homeopathic ointment)</p> 	<p><b>Capsaicin</b></p> <p>(Compound contained in capsicum chile peppers)</p> 
<p>To reduce fever and ease discomfort of colds, headache, toothache, muscle ache, backache, menstrual cramps and arthritis</p>	<p>To reduce fever and relieve discomfort of colds, headache, toothache, muscle ache, backache, menstrual cramps and arthritis</p>	<p>To ease muscle soreness, joint pain, sprains, strains, sports injuries</p>	<p>To ease muscle aches and strains, may help with joint pain.</p>
<p>220 mg—one caplet—every eight to 12 hours; do not take more than three 220-mg tablets per day without a physician's okay.</p>	<p>12.5 mg—one tablet or caplet—every four to six hours as needed; do not exceed two tablets or caplets in any four- to six-hour period, or six in any 24-hour period.</p>	<p>Take homeopathic arnica 30c internally according to package directions; use arnica ointment three times a day.</p>	<p>With ointment or other commercially prepared form, follow package directions.</p>
<p>Like ibuprofen and aspirin, reduces inflammation. Also inhibits production of prostaglandins, so helps tame menstrual cramps. Researchers are eyeing a possible link between regular use and a reduced risk of Alzheimer's disease. Can help control the initial discomfort of a muscle-strain injury.</p>	<p>Reduces inflammation and eases menstrual cramps. Researchers are eyeing a possible link between regular use and a reduced risk of Alzheimer's disease. Can ease the initial discomfort of a muscle-strain injury.</p>	<p>Side effects are negligible and rare; has pleasant scent.</p>	<p>Besides pain relief, when taken in other forms (internally) may be beneficial for heart and blood vessels in general.</p>
<p>May cause stomach upset or ulcers. Consult your doctor before using if you regularly have more than three alcoholic drinks per day. May cause problems if taken during third trimester of pregnancy. Not to be used by people allergic to aspirin.</p>	<p>May cause stomach upset or ulcers. Consult your doctor before using if you regularly have more than three alcoholic drinks a day. May cause problems if taken during third trimester of pregnancy. Not to be used by people allergic to aspirin.</p>	<p>Do not use ointment on broken skin.</p>	<p>May cause burning sensation on skin at first.</p>

poorly understood chronic pain condition, fall into the first category. One of its symptoms is extreme oversensitivity (a low pain threshold). For unknown reasons, fibromyalgics interpret minor discomfort as pain, much as a hypersensitive car alarm "reads" the slightest jiggling or stiff breeze as an attempted theft. In one test for fibromyalgia, a physician places four kilograms (less than nine pounds) of pressure on various sites of the body. For nonsufferers, this is felt simply as pressure, nothing more. For fibromyalgia patients, however, it can be perceived as excruciating pain.

In the case of 41-year-old Kristin Thorson, the simplest movement is agony. Thorson's pain started as the wearying body ache of a fever brought on by a bladder infection. The fever eventually passed, but the ache continued—a deep hurt that seemed to reach from her bones to her tendons and muscles. "I couldn't believe I had that much pain all over," she says. "I actually broke the thermometer, because I thought it couldn't be working. I couldn't imagine how I could still feel like this if my temperature had come down." That was 14 years ago. The pain has persisted every day since: through her marriage, the birth of two children, a move from California to Arizona, and a switch from her original career as a chemical engineer to her current advocacy work as head of the Fibromyalgia Network.

At the other end of the spectrum sit the curious individuals who are incapable of detecting any pain at all. Far from being a blissful situation, however, this rare disorder—known as congenital insensitivity to pain—requires constant vigilance, for when properly regulated, pain alerts the body to potential injury. Sufferers constantly run the risk of hurting themselves without realizing it, by laying their hand on a stove top, say, or continuing to run on a broken leg. According to David Morris' book *The Culture of Pain*, Edward H. Gibson, one celebrated man with this condition, starred in vaudeville in the 1920s as The Human Pincushion. In his act he would allow a member of the audience to plunge several dozen (sterilized) hatpins into him—anywhere except into his abdomen or groin. One time, he even reenacted the Crucifixion, asking an assistant to drive massive gold-plated spikes into his hands and feet with a sledgehammer. Gibson proceeded as usual, prompting one woman in the audience to faint as the first spike pierced his flesh. Such pandemonium ensued that Gibson wisely canceled the act.

Gender may also play a role in predicting responses to pain. A number of studies have found that women's pain thresholds are considerably (and inexplicably) lower than those of men. I. Jon Russell, M.D., Ph.D., a prominent fibromyalgia researcher at the University of Texas Health Sciences Center in San Antonio, believes that women's relatively high pain sensitivity may give a clue to why the vast majori-

ty of fibromyalgia sufferers—some 80 percent—are female. Still, is this nature or nurture? "There's no question that men complain of pain much less than women do," says Carol Warfield, M.D., chief of the division of pain medicine at Boston's Beth Israel Deaconess Medical Center. "But it's learned behavior. Men are told from the time they are very little that they are sissies if they cringe, whereas women learn to say, 'I'm in pain. I need something.'"

Finally, psychological factors may be at work. Gerald M. Aronoff, M.D., president of the American Academy of Pain Management and medical director of the Presbyterian Rehabilitation Center for Pain Medicine in Charlotte, North Carolina, uses the term *pain-prone disorder* to cover a class of individuals who, because of emotionally painful childhood experiences, are likely to "somatize" their emotional distress as adults and feel it as physical pain. The sensations are real, and hurt them just as much as someone else's rheumatoid arthritis.

## How to Read the Labels

**Buffered** An antacid has been added to reduce the risk of stomach upset.

**Caffeine** It's sometimes included for extra headache-fighting power.

**Enteric-coated** Enteric means "of the intestines." What it means to you and your pain is that the drug is coated with a substance that will keep it from dissolving until it reaches the lower part of your digestive tract, thus reducing the risk of stomach upset.

**Extra strength** Simply put, each tablet or pill contains more of the active ingredient that gives it its pain-fighting power.

**IB** A tip-off that the product contains ibuprofen to fight inflammation.

**PM** As the letters imply, a sleep aid has been added.

**"Safety Squeeze"** Child-resistant top. Good luck getting it open.

## The brain and pain

Medical science has made recent progress in tracing different levels of pain sensitivity to the inner workings of the body's pain mechanism. As currently understood, the pain pathway generally runs two ways—from pain to brain, and from brain to pain. If you stub your toe, for instance, the pain signal travels from pain receptors in the toe called nociceptors, along telephone wire-like nerves to the spinal cord and up to the brain, where the pain signal is registered as a noxious stimulus. Nociceptors, it turns out, are most heavily concentrated in the mouth, the fingertips and the genitals, which is one possible

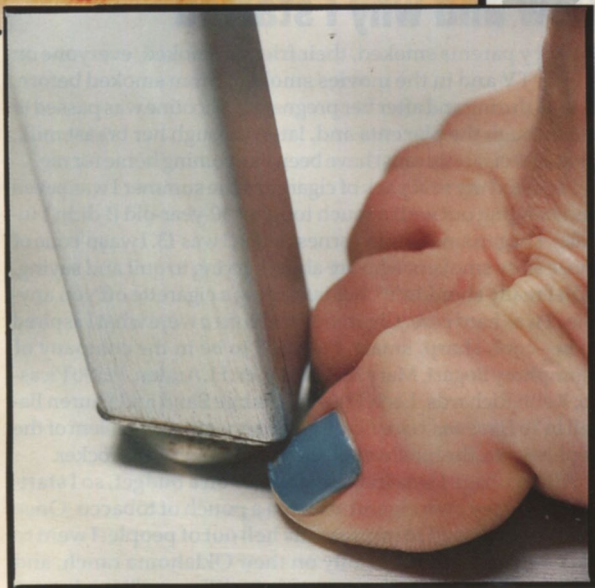
(and quite logical) explanation as to why pain in those areas tends to be felt most acutely.

Different types of pain, it appears, take altogether different routes. Sharp, stabbing pain travels through portions of the nerves called A-delta fibers, which take the neospinothalamic pathway up the spinal cord (think of it as an interstate highway) to the cortex, often described as the thinking part of the brain. On the other hand, dull aches and pains appear to move through much slower C-nerve fibers, which use the paleospinothalamic pathway (the back roads) to the thalamus, the brain's so-called central clearinghouse, which acts as a switchboard, sending sensations off to be interpreted elsewhere.

Moving in the other direction, from brain to pain, are the neurotransmitters noradrenaline and serotonin and the body's own opioids, the endorphins. The pain inhibitors sweep down the spinal cord to dampen, and sometimes shut out, pain signals before they can reach the brain. The endorphins account for the dreamy condition known as runner's high, the raised pain threshold of pregnancy and the surprising lack of sensation reported by people caught in the jaws of wild animals. In recent years, individuals with more than the normal amount of substance P, a neurotrans-

mitter involved in passing pain signals to the brain, have been found to be more sensitive to pain.

This unfolding medical model of pain has led to notable developments in pain treatments—electrical stimulation, for one. According to the “gate theory” of analgesia, the junction of peripheral nerves and the spinal cord acts as a gate that can be closed to further pain signals when subjected to other sensory inputs, such as ice, acupuncture or electricity. (This is why it helps to rub your shin after you’ve banged it—the rubbing sensation overrides the other pain.) TENS, which stands for transcutaneous electrical nerve stimulations, is a method now widely used in pain control centers, but debates over its efficacy have kept it from reaching millions of sufferers in general practitioners’ offices. In addition, new discoveries about the role of neurotransmitters such as serotonin in registering pain have led to the prescription of antidepressants (which target the serotonin and noradrenaline receptors) for pain relief.



PHOTOGRAPHS: DARRYL ESTRINE, PROP STYLIST: DANIELLE NOIR.

## About 34 million Americans suffer from chronic pain, which lasts at least six months without responding to treatment.

When you numb the mind, you numb the hurt. And by tracking the paths of pain perception back to the brain, neurologists and other specialists have reached what researchers call the essential paradox of pain: the fact that in the deepest sense, pain—no matter how intense—is centered in your mind. Ultimately, neurologists like to point out, pain can be registered and recorded only by the brain. Without its involvement, one might say, all pains would be painless.

Unfortunately, as pain shifts from the physical realm to the metaphysical, it leaves most doctors behind. “When the subject is pain,” says Dr. Patt, “doctors’ IQs fall by 20 points.” Partly this is because of most doctors’ limited training in pain management. Only in the past 10 years, after all, have medical students begun to receive the most basic biomedical lectures on the subject.

More deeply, though, the lab-based biotechnology of Western medicine may simply not be able to reach into the tangle of thought and feeling where pain is born. At least not yet. MRIs, for example, are the most commonly used medical instruments for unearthing the causes of low back pain, but pinpointing the source is often difficult or impossible. Accustomed to finding the truth in such body scans, many doctors may be temperamentally unsuited to seek it through more time-honored means such as gentle conversation.

“Frankly, it makes most doctors uncomfortable to have to talk to and believe a patient,” says Patt. Their uneasiness is not helped by an evolving managed health care system that does little to encourage personal rapport. “There’s no relationship there. All [many doctors] hear is some vague report of pain. They don’t have time to care.” About 34 million Americans suffer from chronic pain, which means, officially, that the pain lasts at least six months without responding to treatment. That hurts.

On a brighter note, some of the more enterprising doctors and other healers have recognized that pain can be intensified by stress and anxiety. What the mind can magnify, it can also mollify. Something as simple as a caring manner can be surprisingly helpful. In turn, medical centers from Seattle’s Harborview to New York City’s Columbia-Presbyterian have succeeded in lessening the painful trauma of operations by leading patients through breathing and imaging exercises; a handful of other hospitals now employ meditation and therapeutic touch. As medical practitioners more fully understand the myriad connections between mind, body and the pathways of pain, they surely will be better able to help us avoid it—and just as important, to manage it if it should strike. ♦

JOHN SEDGWICK, SELF’s National Correspondent, wrote about the perils of “junk medicine” in August and wrote a futuristic account of reproductive medicine in the September issue.