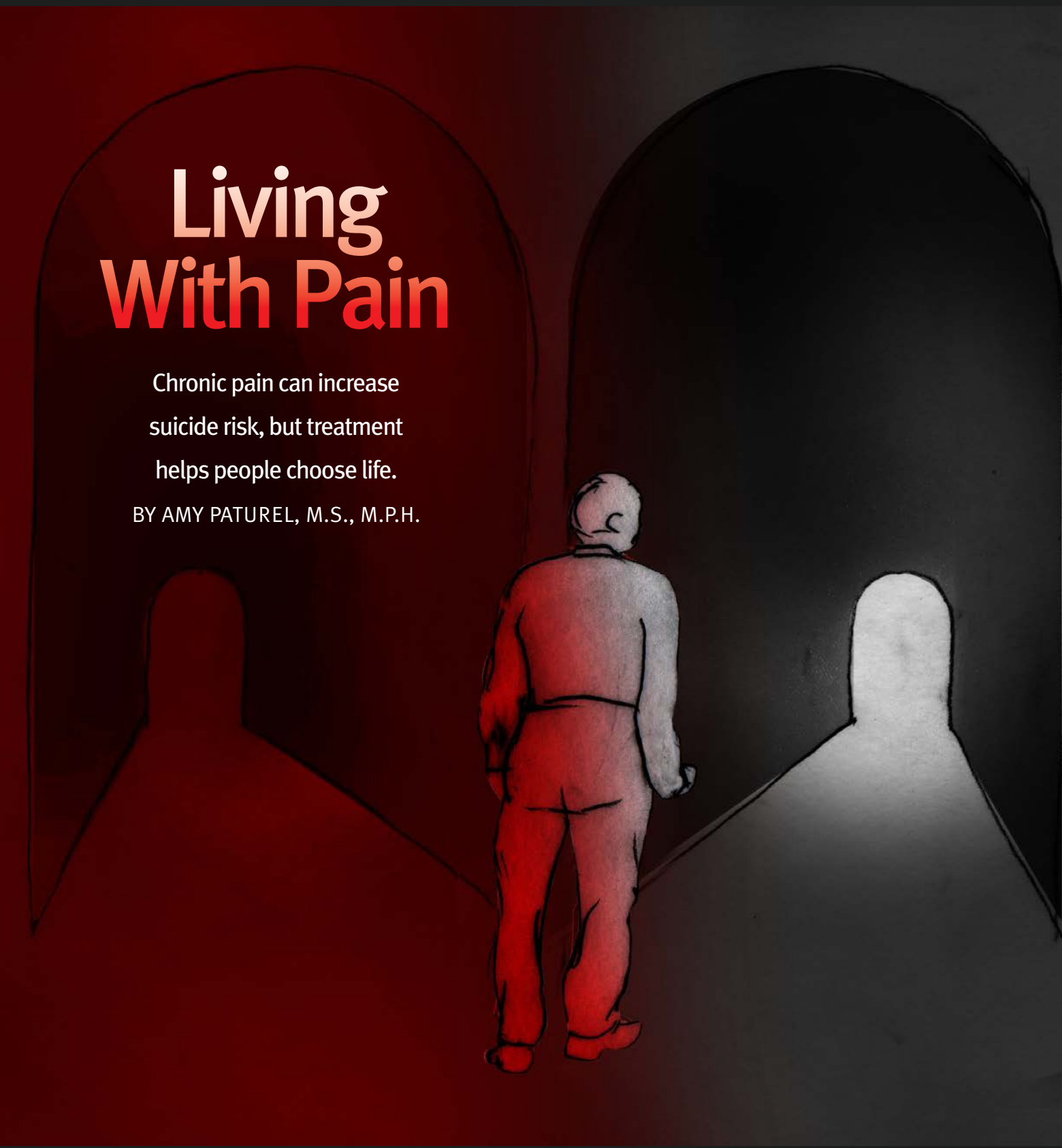
Living With Pain

Chronic pain can increase suicide risk, but treatment helps people choose life.

BY AMY PATUREL, M.S., M.P.H.



"Reports show that 50 percent of chronic pain patients consider suicide to escape their physical pain."

A few months after being diagnosed with multiple sclerosis (MS) at age 17, Jon Hood of Phoenix, AZ, wandered through his home gathering medications—in an attempt to kill himself to escape the physical pain he was experiencing as a result of the disease. He swallowed a pile of pills with a glass of water. Hours later, he woke up disoriented, confused, and suffering from severe stomach cramps. "My mom heard me vomiting and took me to the hospital," says Hood.

He had begun feeling pain in his limbs at age 11. At 13, leg cramps kept him up all night. By 17, Hood had lost his vision, developed a limp, and could no longer play sports.

He went to a string of doctors, but none were able to pinpoint the cause of his symptoms. Many thought he was making them up. Although physical pain is becoming increasingly recognized as a symptom of MS, many people—including doctors—are unaware that it can be caused by the disease. Some research suggests that more than half of MS patients experience pain at some point during the course of the disease, and that nearly half experience chronic pain. MS has been associated with trigeminal (facial) pain, painful spasms, burning or shooting pain, and back pain.

Hood was finally diagnosed with MS following a series of imaging exams and lab tests that spanned a few weeks. (For the full collection of *Neurology Now* articles on MS, go to **http://bit.ly/x4E6Fb**.)

"The day I attempted suicide, I was with a group of friends at a gas station. I offered to run in and get some sodas. My friend said, 'Stay here; I'll run in real quick,'" says Hood, now 24. "I suddenly felt like I would always be treated differently." The statement reinforced his sense of hopelessness at the hands of an incurable and painful disease.

Hood's despair isn't unique. Reports show that 50 percent of chronic pain patients consider suicide to escape the unrelenting agony of their pain. A study published in *Psychosomatic Medicine* in 2006 found that relative to the general population, risk of death by suicide appears to be at least doubled in chronic pain patients.

Despite these sobering statistics, there's reason for hope. Beyond the bevy of pharmaceutical options available to target pain and accompanying depression, a variety of self-help tools are available. First, however, the cause of the pain must be identified by a neurologist, as different pain conditions require different treatments.

THE BRAIN ON PAIN

Chronic pain alters the brain's pain processing systems, changing the brain structurally, functionally, and chemically. Structurally, researchers have uncovered a decrease in the brain's volume in a number of areas. One area consistently affected is the prefrontal cortex, the area in the front of our brains that is involved in attention, organization, and problem solving. Functionally, in chronic pain the brain's ability to inhibit pain is reduced. Chemically, chronic pain patients have reduced levels of neurotransmitters such as serotonin and norepinephrine, which help regulate both mood and pain sensations.

"When those neurotransmission systems are not functioning properly, people are vulnerable not only to chronic pain, but also to depression," says Afton Hassett, Psy.D., clinical psychologist and associate research scientist in the Department of anesthesiology at the University of Michigan Medical School in Ann Arbor, MI. "That's one reason why depression can *physically* hurt. Biologically, pain and depression are very closely connected."

It makes sense, then, that people who have chronic pain are vulnerable to depression and suicidal thoughts. To add insult to injury, many pain conditions are poorly understood.

After 18 months of struggling to understand what was happening to her body, Cassandra Metzger, 47, of Washington D.C., considered ending her life. Exhausted and sick, she had tried a myriad of painkillers, muscle relaxers, sleep inducers, and mood enhancers to address the pain. Nothing worked. She even turned to alternative approaches. None of those worked for long.

Finally, at age 35, she was diagnosed with fibromyalgia, a disorder of the central nervous system that causes pain signals to misfire, resulting in long-term, body-wide pain and tenderness in the joints, muscles, and tendons. (To read a Neurology Now article on fibromyalgia, go to **http://bit.ly/q3KP3c**.) She felt pain and tenderness. Then she began to experience brief periods with burning

SUICIDE WARNING SIGNS

- Talking or joking about suicide or making statements about being reunited with a lost loved one
- Making statements about hopelessness, helplessness, or worthlessness
- Preoccupation with death
- Appearing suddenly happier or calmer after a period of severe depression
- Loss of interest in things one cares about
- Unusual visiting or calling people one cares about to say goodbye
- Giving possessions away, making arrangements, or settling one's affairs
- Self-destructive or risk-taking behaviors

ILLUSTRATIONS BY BRIAN STAUFFER

sensations. "My skin was on fire," says Metzger. "I couldn't stand to have anything touching me; not even a necklace with a tiny cross on it. I had to be naked."

Doctors couldn't identify the problem. Her family thought she was making the symptoms up. Then she lost her job. "I started to realize this was my new reality. I had something that wasn't going to be treated or cured," says Metzger. "I felt like I couldn't do it anymore. I remember thinking at least I had the medicines to put an end to my misery."

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THE BRAIN ON HOPE

Patients with chronic pain may have to wait a long time for doctors to figure out why, which can lead to hopelessness and despair.

"If you're on a plane and you know there's going to be an hour delay, that's easier to handle than being on the tarmac for an hour and not knowing when you're going to get off," explains Charles E. Argoff, M.D., professor of neurology and director of the Comprehensive Pain Management Center at Albany Medical Center in Albany, NY, and member of the AAN. "Substantial research, especially in fibromyalgia, suggests that having an adequate explanation of what's wrong with you is therapeutic."

Millions of patients who are suffering find hope in recognizing the transient nature of chronic pain. "If you can remember a time when the pain wasn't so bad and reassure yourself that it won't be as bad in the future, you can get through it," says Metzger, who uses a wide range of strategies, from medication to meditation, to live with her pain rather than trying to flee from it. (To read more about the benefits of meditation for chronic pain, go to **http://bit.ly/NXOUVS**.)

Unfortunately, once patients have a diagnosis, they're often told nothing more can be done. "Even though we now have so many effective ways to treat people, if you're told they don't exist and you have no exit or no way to improve, that stresses your ability to deal with your disease," says Dr. Argoff. Remind yourself that doctors now have a wide range of treatments for chronic pain and are developing new ones all the time.

According to Hood, some of the doctors he saw didn't know that MS causes pain. "They send you to a pain clinic, and the pain clinic treats you like a drug addict," says Hood. That's why it's important for pain patients to seek out neurologists who specialize in addressing chronic pain.

The American Academy of Neurology's "Find a Neurologist" tool at patients.aan.com/findaneurologist is a good place to start. The American Academy of Pain Management website (**aapainmanage.org**) also features thousands of pain specialists.

ADDING MEDICATION TO THE MIX

There's no shortage of pharmacological options for treating

If Someone You Love Is At Risk Of Suicide

DO:

✓ **BE DIRECT.** It's okay to ask the person whether he has ever thought about suicide. Don't worry about planting an idea in his head. If someone has been thinking about suicide, he will be relieved that you were open to talking about it.

✓ **TAKE IT SERIOUSLY.** If someone admits to suicidal thoughts, ask whether she has a plan. If you feel the person is in immediate danger, make sure she is not alone and call for help (dial 911 if necessary).

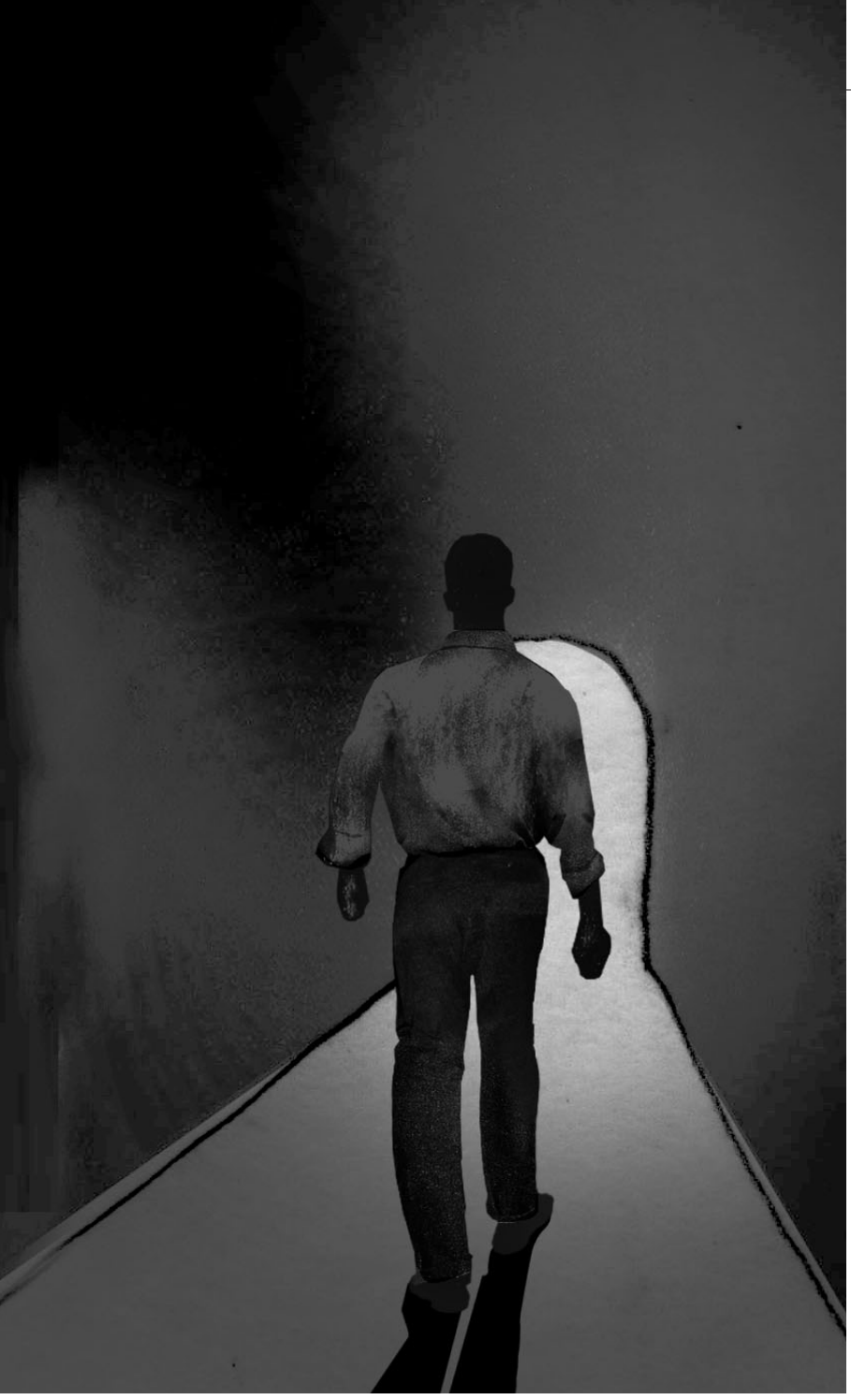
✓ **OFFER SUPPORT.** If the person isn't in immediate danger, try to empathize with her. Say things like, "I can see that you're hurting," and "I care about you and want to help you manage the pain. You don't have to go through this alone." Then follow through and help her find multiple sources of support.

DON'T:

✗ **JUDGE THE THOUGHTS.** Don't debate whether or not suicide is right or wrong or whether the feelings are good or bad. Listen attentively and allow the person to express his or her feelings without judging them.

✗ **KEEP THE PERSON'S PLAN FOR SUICIDE A SECRET.** Don't worry about breaking a bond of friendship. It's more important to save a life. Someone who is suicidal should see a professional immediately.

✗ **IGNORE A CRY FOR HELP.** Never call someone's bluff or try to minimize his problems by telling him he has everything to live for or how hurt his family will be. That will only increase his feelings of sadness and guilt. He needs to be reassured that there is help, what he's feeling is treatable and that his suicidal feelings are temporary, and he won't always feel this way.



chronic pain. Acetaminophen, anti-inflammatories, antidepressants, and antiseizure medications may all be viable options. Opioids can also be useful in treating pain, but some evidence suggests they don't help people with chronic pain function better. And opioids are usually not appropriate for headache pain.

While patients may fear side effects like addiction, mood disturbances, and insomnia, experts agree that in most cases, being in chronic pain is more toxic than pain medications.

Still, the abuse of pain meds is common, and all medications have side effects. "Every antidepressant can make patients feel more depressed. Every narcotic can be misused and abused," Dr. Argoff says. The results can be fatal: Annual deaths due to overdoses of painkillers quadrupled, from 3,500 to 14,800, between 1998 and 2008, according to the Centers for Disease Control and Prevention (CDC). The challenge then becomes identifying which medication will work for a particular patient without resulting abuse or addiction—and unfortunately, that isn't clear-cut.

"We don't have a test to determine which medication will work for a particular patient," says Dr. Argoff. "So physicians really have to use their own clinical experience and carefully screen patients."

Both Metzger and Hood have been prescribed a variety of medications over the years. Some were helpful; some weren't. And some, like opioids, altered their perception to such a degree that they still felt pain but were less bothered by it.

A study published in the *American Journal of Medicine* found that of the 456 patients referred to a multidisciplinary pain center, 32 percent reported using opioids, with more than two-thirds using the strongest variety. Opioid use was most common among the patients it's most likely to harm: those with a history of substance abuse, mental illness, and previous suicide attempts.

"Several screening tools have been developed to predict who is at risk of experiencing problems on opioids," explains Dr. Argoff. "Physicians must screen patients with chronic pain for substance abuse and mental health problems, especially depression and anxiety disorders, before putting them on potentially harmful therapies." Patients must provide their doctor with a complete medical and family history, including mental health and substance abuse issues. They should also tell their doctor which medications have worked for them in the past (and which haven't).

COMPLEMENTARY APPROACHES

Hood and Metzger were lucky; they were able to address the roots of their secondary depression (brought on by chronic pain) and also reexamine pain management options. Both claim complementary approaches—deep breathing, meditation, even simple distraction—have been very effective at quieting their pain. These techniques deliver a powerful message that patients have some options to ease their level of discomfort.

Promising research suggests people have more control over their perception of pain than they think. Just anticipating relief seems to make it happen, as research into the placebo effect illustrates. (The placebo effect is an improvement in a condition based on a person's expectation that the treatment will help.)

Mind/Body Therapies: A Breakdown

Medications aren't the only way to manage chronic pain. Here are a few mind-body approaches:

- **Guided Imagery:** The practice of imagining something vividly encourages your body to react as though it's actually happening. Guided imagery can relax muscles and reduce stress.
  Try it: *When you feel pain coming on, close your eyes and imagine a relaxing, peaceful place—an open field, a deserted beach, a beautiful mountain top—whatever you find personally relaxing. Engage all of your senses in that restful space and stay with the peace for at least 15 minutes.*

- **Progressive Muscle Relaxation:** Progressively relaxing the muscles creates body awareness, helping you recognize and reduce muscle tension. Several studies also suggest that progressive muscle relaxation reduces levels of the stress hormone cortisol and helps patients manage chronic pain.
  Try it: *Concentrate on your toes, sensing whether or not they are tense. Then deliberately relax them before slowly moving on to a different part of your feet. Gradually, move through your entire body, all the way to the top of your head.*

- **Deep Breathing:** Even as little as five minutes of deep breathing, which is commonly used during childbirth, can slow down the heart, lower blood pressure, ease muscle tension, release stress, and relax the pain response.
  Try it: *Touch your heart or belly in order to shift your attention away from your thoughts. Then close your eyes, breathe softly into your belly for a count of four, hold your breath for another count of four, and breathe out for a count of seven.*

Similarly, patients who believe their pain medication has been stopped begin to feel worse, even if they're still receiving it.

Pain is simply an electrical signal that goes to the brain, where it is interpreted. The first conscious component of pain is you noticing it. Then there's the suffering component, which is the focus and interpretation you place on it. Techniques that help patients emotionally reappraise their pain can be very helpful.

Another strategy for coping with pain is directing your mind away from the discomfort. It's like having a flashlight in the dark: you choose what to focus on. In one 2005 study, subjects watched their own brain scans and experienced how peaceful thoughts caused the pain centers in the brain to calm down.

That's the main tenet behind practices such as meditation, guided imagery, and deep breathing. It also underlies cognitive behavioral therapy, a form of psychotherapy that helps patients shift negative thought patterns and substitute more positive behaviors.

Cognitive behavioral therapy—even by phone—is proving surprisingly effective. According to a study published in the *Archives of Internal Medicine*, telephone therapy for six months resulted in less pain for 30 percent of British patients with fibromyalgia compared to only eight percent of those getting conventional treatments.

Mind-body therapies may also have benefits. Research shows that people who meditate regularly experience less pain than those who don't meditate. In a study in the *Journal of Neuroscience*, researchers at Wake Forest University School of Medicine in Winston-Salem, NC, taught 15 adults how to meditate for 20 minutes a day for four days and then subjected them to painful stimuli (a hot probe applied to the leg).

Subjects reported feeling 40 percent less pain intensity and 57 percent less unpleasantness while meditating . In fact, meditation produced a far greater reduction in pain than morphine or other pain medications, which typically reduce pain by only 25 percent.

"Even if the discomfort doesn't go away, meditation can create a space between the sensation of pain and me," says Metzger. "Instead of experiencing the pain as an unmovable, suffocating force, meditation allowed for some alteration. And often, that possibility was enough to enable me not to give up."

Although complementary therapies may not be covered by insurance or Medicare, many trustworthy resources are available in the form of books, CDs, DVDs, and organizations. (See Resource Central, page 37.)

A NEW HORIZON

Chronic pain remains grossly untreated in many patients. Lack of knowledge among health care professionals and patients, insufficient time during office visits to raise suicidal thoughts, and fear of pain medications all contribute to the problem. However, experts contend that patients should continue seeking the appropriate help tailored to their specific needs.

"For many people, non-drug approaches provide equal or more benefit than any drug therapy," says Dr. Argoff. "For fibromyalgia, cognitive behavioral approaches, and mind-body therapies like yoga, meditation, and massage, can be as effective as medication."

For Hood, focusing on healthy distractions is key. Suicide ceases to be a preoccupation because the need to escape recedes. Instead of giving in to a negative thought pattern, he is able to soothe himself until the impulse passes.

"There are moments when you remember what it's like not to hurt; when you forget you're sick and can't get out of bed on your own; when you're talking to a stranger at work or feeling a rush of cold air from an outdoor breeze. Those simple things can pull you out of your pain," says Hood. "They can help you hang on to hope." NN