Energize!
The no-slump, no-crash way to eat

A beach-ready body in 3 easy moves
[page 80]

The surprising truth about your headaches
And how to get help

The new AGE-ERASER
[page 25]

Are you making your life impossible?
How to break free of perfectionism

6 SCARY MEDICAL TESTS DEMYSTIFIED
I USED TO BLAME my headaches on stress. Or drinking too many cocktails. Or not getting enough sleep. Or staring at the computer monitor for too long. When I woke up with a doozy the other day, I immediately regretted drinking that glass of cheap red wine with dinner the night before. Even for a supposed hangover, it wasn’t pretty. There was throbbing pain deep inside my left eyeball. It hurt to look at my computer screen. It hurt to look outside. I felt too queasy to eat. All I wanted to do was crawl back into bed—but I had an important phone call to make. It’s a crazy coincidence, I know, but I just happened to be researching migraines for a magazine article, and I had scheduled an interview with neurologist Seymour Diamond, M.D.,
founder of the Diamond Headache Clinic in Chicago.

As Diamond described the symptoms of a typical migraine, which include throbbing pain on one side of the head, nausea, and sensitivity to light, my own diagnosis seemed to hit me over the head. “That’s exactly how I feel right now,” I said. He didn’t miss a beat: “You have a migraine.”

My symptoms are so classic—how could I have missed the signals? As it turns out, I’m not the only one who has. Some 28 million Americans, most of them women, get migraines each year. More than half never receive a proper diagnosis (see “Do You Have Migraines?” at far right). “Migraines are probably one of the most misdiagnosed and mistreated diseases,” says Diamond, who is also the executive chairman of the National Headache Foundation.

In fact, the situation may be even worse than those appalling numbers suggest, if a recent study is any indication. Published last November in the journal *Neurology*, it showed that 58 percent of female neurologists and 35 percent of male neurologists had suffered migraines in the previous year. Among headache specialists, the numbers climb even higher, to 74 percent of females and 59 percent of males. Sure, it’s possible that people with headaches might be more likely to become neurologists, but these physicians are also more likely to recognize the symptoms in themselves, says Houston neurologist Randolph W. Evans, M.D., an author of the study.

“I give lectures to doctors and nurses all the time,” says Evans, who started getting migraines when he was in high school. “I ask them to describe their headaches. Almost invariably, people have migraines. These are doctors and nurses, and they don’t know these are migraines they’re having.”

If your head hurts, it’s worth the effort to figure out why. Untreated migraines take a heavier toll than previously realized on the spirts, pocketbooks, and bodies of sufferers. If you have migraines, you may well feel like a slacker—one recent study estimated that headaches cost $20 million a year in lost productivity. You almost certainly sometimes feel like an invalid, because improperly treating migraines (by throwing the wrong medicine at them, for instance) can breed more pain.

Naming your problem can make it easier to cope. But more importantly, it can also reduce the pain, because recent research has produced an arsenal of new treatment and prevention strategies that are more effective than ever.

**ELIZABETH PIRCH KNOWS** too well what can happen when migraines go unrecognized. The 48-year-old lawyer from Alexandria, Virginia, has endured headaches nearly every day of her life since at least age 6. “I remember lying in bed and crying,” she says, “and wishing someone would cut off my head because it hurt so much.” By the time she was in high school, Pirsch was gobbling Dristan and
Sinutab by the bottle. By the time she was diagnosed in her 30s, her migraines had spun out of control that she was spending much of her time in bed. A lifetime of tensing against pain has left her with chronic shoulder problems and permanent knots in her muscles. "I think, 'My God, if I hadn't had migraines, life would have been so easy,'" Pirsch says.

It's easy to fall into the painkiller trap: Many people take over-the-counter pain medications more than two or three times a week, and set themselves up for a lifetime of rebound headaches and escalating misery. "The pain mechanisms in the body adapt to having pain medications on board," says neurologist Richard Lipton, M.D., of Albert Einstein College of Medicine in New York. Although experts don't fully understand the process, that seems to make the body's own pain-relieving chemicals partially shut down. Some 4 percent of people worldwide have daily or near-daily headaches, says neurologist Stephen Silberstein, M.D., president-elect of the American Headache Society, and most of the time rebound is to blame. "It's an epidemic," he says.

The agony of a migraine—which does not necessarily include a headache—can be hard for non-sufferers to understand. Telltale symptoms are many. In addition to the pulsing pain on one side of the head and nausea I experience, they include vomiting; pain that grows worse with physical exercise; and hypersensitivity to lights, sounds, smells, and touch. About 20 percent of migraineurs have visual auras: They see zigzags or flashes of light, or lose their vision temporarily. Untreated, migraines can last days.

But for all the misery they cause, headaches are not always a socially acceptable excuse for missing work. Indeed, patients tend to blame themselves. Neurologist Stuart Stark, M.D., had finished medical school when he realized he had been getting migraines a few times a year for most of his life. "When I was a kid, I was told they were due to stress," says Stark, who lives in Alexandria, Virginia. "I was told that I couldn't handle stress so well. I thought it was my fault."

It's clear, however, that migraines are in the head—physically—not in the psyche. What happens in the brain is not fully understood, but imaging studies suggest that migraines start when an area of the brain near the base of the skull becomes overactive. This causes blood vessels around the brain to constrict, then dilate, in a cycle of pulses. Neurons in the brain start to fire aggressively, and the overamped wiring spreads throughout the nervous system. (For some people, the hyperexcitability of nerves produces excruciatingly sensitive skin.) At the same time, inflammatory chemicals are released in the brain, along with the neurotransmitter serotonin.

**ALL THESE THINGS** explain why some people live with migraines. But they **could** live without them. Some of the most important recent changes in treatment have grown out of a better understanding of a well-known class of prescription drugs called triptans. A variety of these medications (Amerge, Imitrex, and Zomig, for example) are available in a number of forms (pills, injections, nasal sprays). But they all work in pretty much the same way: by blocking the action of brain chemicals, thus interrupting pain signals.

Patients frequently take triptans 2 to 4 hours after a migraine starts. At that point, though, the drugs relieve pain in only about 40 percent of patients, says Harvard neurophysiologist Rami Burstein, Ph.D. Taking a triptan pill in the first 20 minutes of an attack aborts the headache in 93 percent of patients, Burstein reported in the *Annals of Neurology* in January. The key is stopping the migraine before the overexcitement of nerve cells becomes too widespread.

Even better than treating migraines is preventing them—and there is a big push among experts to get patients to do just that. At its simplest, prevention means helping a sufferer avoid his or her headache triggers. These vary from person to person, and even from migraine to migraine, but they commonly include red wine, stress, over- or undersleeping, cigarette smoke, bright lights, and changes in weather or altitude. Changes in hormone levels can set things off, too, which might explain why more women than men have migraines and why women tend to get them at the start of puberty or menopause, [continued on page 198]
of chemicals that excite the brain and by raising levels of chemicals that quiet it. “If migraine is a car,” he says, “topiramate may simultaneously take the foot off the gas pedal and apply the brake.”

Injections of Botox may help, too. More commonly known for its age-defying effects, the drug paralyzes muscles in the forehead, making wrinkles go away. But more than a decade ago, doctors began noticing that migraineurs who received the treatment were having fewer headaches. The connection has not yet been proven, and Botox is not officially approved for treating migraines (studies are ongoing). Still, many doctors are using the injections, which may prevent headaches in as many as 40 percent of chronic-migraine patients, Diamond says, perhaps by blocking the transmission of pain signals from muscles in the forehead.

Some alternative strategies look promising as well, Lipton says. In a recent study, the herb butterbur root was as good as prescription drugs at preventing migraines, he says. The root occasionally causes stomach upset but is basically low-risk, Lipton adds. Other alternative treatments that might be worth a try include the B vitamin riboflavin, the herb feverfew, and co-enzyme Q10. Chiropractic treatments, acupuncture, biofeedback, and cognitive-behavior therapy also may help prevent and treat migraines.

Ultimately, most migraine sufferers find that a combination of strategies offers the best chance at success. Susan Dyer, a customer-service representative from Seattle, has come a long way since her first migraine at age 23, when she spent the day on the floor with her newborn daughter because she was afraid she would drop the baby if she stood up. She was finally diagnosed more than two decades later.

Now 53, Dyer turns to the triptan Imitrex a dozen times a month, even though the drug saps her energy. She takes it when she has a steady headache or when the warning signals (auras and a feeling that her teeth are too tight) last more than a few minutes. Dyer has also learned to avoid her triggers, which include long naps. “I’ve had to give up one of my guilty pleasures,” she says. The sacrifice has been worth it. “There is life after migraines,” Dyer says. “See your doctor.”

I plan to take Dyer’s advice. I’m keeping a headache diary to help me spot any patterns in what I eat, how much I sleep, or how much stress I’m under. Next time I feel a migraine coming on, I’ll go straight to my doctor to discuss my options. Only after that will I let myself crawl back into bed. Better yet, maybe I won’t have to.

Emily Sohn writes for U.S. News & World Report and New Scientist, among other magazines.