

“More doctors are recommending **low-impact exercise** instead of inactivity.”

Exercise Rx for Nerve Pain

People with neuropathy were once told not to exercise, but not any more. Here are simple tips for getting started.

BY JENNIFER HAUPT

John Seneff, 77, a retired attorney in San Antonio, Texas, used to run six miles every day. But in his early fifties, he began noticing that his feet ached after he ran, and the condition just kept getting worse. “I didn’t want to stop running, but within three years even walking briskly was painful,” recalls Seneff, who was diagnosed with peripheral neuropathy in 1997. “For me, though, giving up exercise just wasn’t an option.”

Peripheral neuropathy describes damage to the nerves that run from the brain and spinal cord to the rest of the body, many of which are responsible for sensing touch, temperature, and pain. Neuropathy can be caused by diabetes, rheumatoid arthritis, cancer, HIV, and other conditions, but it can also be hereditary or a side effect of certain medications. Typically, people first experience tingling and numbness in the hands and feet. They often describe the symptoms as burning, shooting pain,

throbbing, and aching; some say that neuropathic pain feels like “frostbite” or like “walking on a bed of coals.”

An estimated twenty million people in the U.S. suffer with the chronic nerve pain, oversensitivity, and numbness of peripheral neuropathy—and like Seneff, many of them struggle with the question of how to exercise without exacerbating their condition. “The rule of thumb used to be that patients diagnosed with a chronic neurological disease were told not

to exercise at all,” says Richard Shields, P.T., Ph.D., director and professor of the Graduate Program in Physical Therapy and Rehabilitation Science at the University of Iowa. “Now, more and more doctors are recommending low-impact exercise instead of inactivity.”

Seneff decided to invest in a recumbent stationary bike and an elliptical trainer, which are easier on his feet as well as the joints throughout his body. Other low-impact options for a cardio work-out include walking and water aerobics. You can find water aerobics classes at most health clubs and physical therapy centers; many community pools also offer classes.

WHY EXERCISE?

While the general benefits of aerobic and flexibility exercises are well-known, increasing movement and heart-rate are particularly important for people suffering with peripheral neuropathy. Physical activity can improve blood circulation, which strengthens nerve tissues by increasing the flow of oxygen.

Gear-Up: What to Wear and Why

SUPPORTIVE SHOES or inserts to prevent pressure and rubbing from socks.

SOCKS MADE FROM HIGH-TECH FABRICS, such as microfiber acrylic, to reduce friction and wick moisture away from feet.

LAYERS OF CLOTHING because they breathe and can be added or peeled off as needed.

SUPPORTIVE DEVICES such as splints and braces to compensate for loss of strength.

PROTECTIVE PADS to safeguard tender knees and elbows.



THREE EASY WARM-UPS

Dr. Carter recommends these three warm-ups that stretch the entire body, all of which begin from a standing position or seated upright in a wheelchair:

1. Reach for the sky with both arms. Next, tilt to the right, and then to the left. Hold each position for 20 seconds.
2. Bend forward from the waist as far as you can without too much discomfort. Hold for 20 seconds.
3. With arms extended out, rotate your body to the left and then to the right. Hold for 20 seconds in each position.

“Immobility is a big problem with peripheral-neuropathy patients. It can result in muscular atrophy (shrinkage) and tightening (loss of flexibility), as well as decreased metabolism, which means less energy and high risk for gaining fat,” says Greg Carter, M.D., professor of rehabilitation medicine at the University of Washington, in Seattle, Washington, and the author of a recent guide for physicians to rehabilitation for peripheral neuropathy patients, sponsored in part by the National Institute of Health. “Aerobic exercise improves not only physical functioning but helps fight depression, maintain ideal body weight, and improve pain tolerance. Aerobic exercise also helps to control blood glucose in diabetics and may lower insulin requirements.”

In fact, a recent study from the University of Utah in Salt Lake City reports that exercise and diet work hand-in-hand to reduce nerve pain for patients with impaired glucose tolerance and neuropathy. This is good news for the 15 million people in the U.S. with diabetes, sixty percent of whom also suffer from peripheral neuropathy.

MOOD MEDICINE

In addition to its physical benefits, exercise can also improve your mental health and overall mood. Regular aerobic exercise reduces the amount of adrenal hormones your body releases in response to stress and increases the amounts of endorphins, powerful pain-relieving and mood-elevating chemicals in the

brain. Get moving and you’ll wind up feeling relaxed and refreshed. You’ll probably even sleep better.

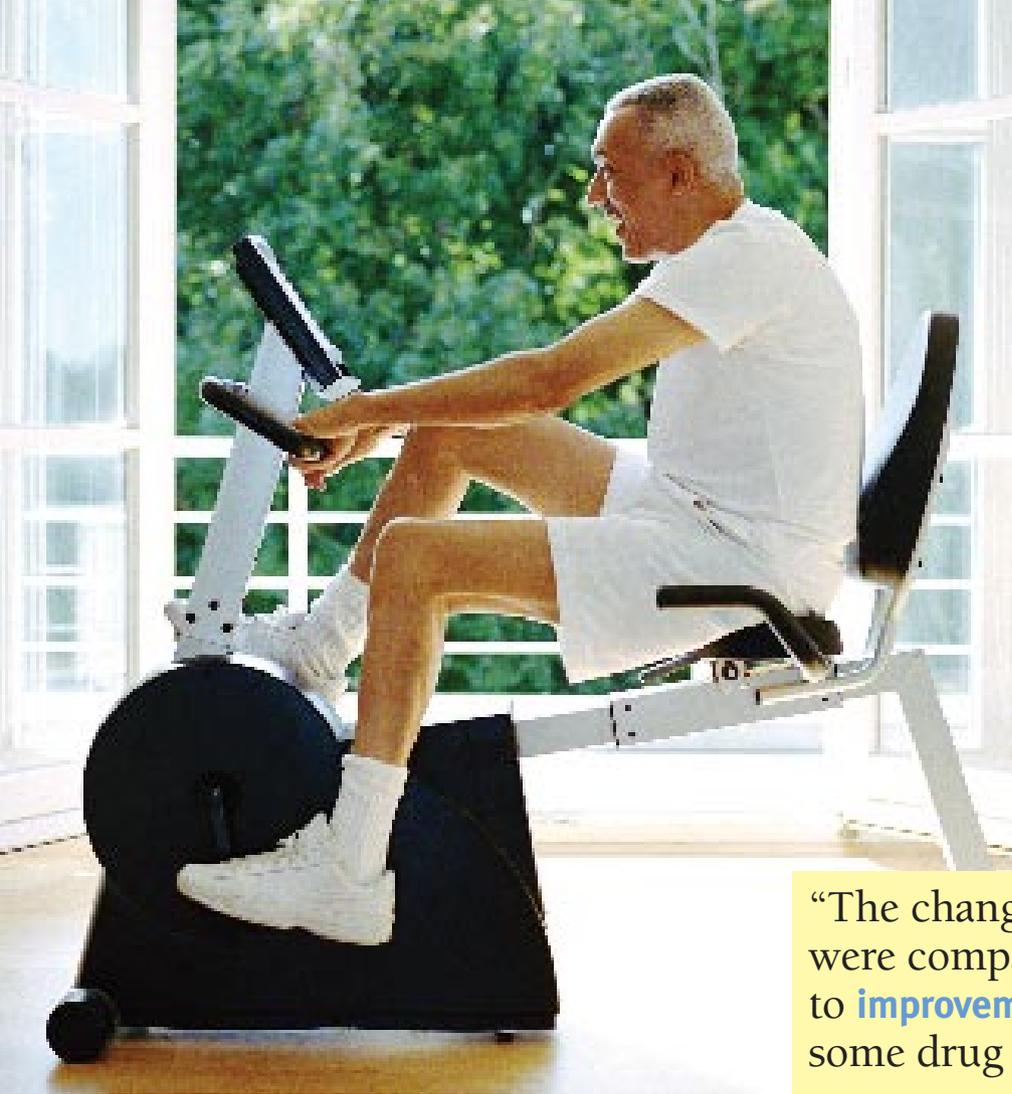
Dr. Shields published a study wherein patients with peripheral neuropathy were given moderate exercise programs—stretching bands for the upper body, as well as 20 minutes of low-impact aerobic exercise (walking or biking) daily. At the end of six weeks, patients not only reported improvements in strength, but also felt better about themselves: They were more optimistic about their ability to participate in social activities, and they thought of themselves as less hampered by physical and mental disabilities.

“The changes we found were comparable to improvement in some drug trials that were deemed to be beneficial,” Dr. Shields explains. “We all cope with daily stresses better when we do aerobic exercise, and we just generally feel better about ourselves when we’re doing some physical activity.”

SLOW AND STEADY

How do you determine what exercise is right for you? “The symptoms of neuropathy vary so widely that it’s imperative to set up an exercise program with your physician,” says P. James B. Dyck, M.D., associate professor of neurology at the Mayo Clinic. “For example, if you’re experiencing numbness in your feet, you may actually hurt yourself—especially your feet—by running or even walking, and without knowing it.”

Any exercise session should start with a warm-up to avoid



Five Signs of Excessive Exercise

Dr. Carter warns that the following are signs you need to slow down:

1. Feeling weaker rather than stronger within 30 minutes after exercise
2. Excessive muscle soreness 24 to 48 hours after exercise
3. Severe muscle cramping
4. Heaviness in the extremities
5. Prolonged shortness of breath

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cramping. Dr. Carter recommends slow, static muscle stretching (that is, 30-second sustained stretches), which also helps maintain flexibility. (See “Three Easy Warm-Ups.”)

“Doing small amounts of flexibility and stretching exercises throughout the day, five or 10 minutes at a time for a total of about 30 minutes, is a good way to avoid muscle fatigue,” says Charlotte Hayes, R.D., a diabetes nutrition and exercise specialist in Atlanta and author of *The I Hate to Exercise Book for People with Diabetes*. “Get up once an hour to move around and stretch for even five minutes—it really does add up.”

Dr. Carter cautions that patients with peripheral neuropathy are more prone to “entrapment neuropathies” associated with pressure on the forearms, such as carpal tunnel syndrome. So if you are using weights, make sure they aren’t too heavy, and if you’re adding weight, do it slowly.

SAFETY FIRST—AND LAST

Before and after you exercise, Hayes suggests that you do a visual check to make sure you don’t have blisters or redness from pressure sores. “We all have to take safety precautions, like making certain we have the right shoes, clothing, and other gear,” Hayes explains. “And this is particularly important when nerve numbness, pain, or oversensitivity is involved.” (See “Gear Up.”)

When it comes to exercise, more doesn’t necessarily mean better. (See “Five Warning Signs of Excessive Exercise.”)

According to Dr. Carter, excessive exercise can cause muscle damage. Several studies conducted with patients suffering from Charcot-Marie-Tooth syndromes, among the most common hereditary neuromuscular diseases, showed that a 12-week moderate-resistance exercise program resulted in strength gains of up to 20 percent without deleterious effects. However, a 12-week high-resistance program showed no added beneficial effect, and there was evidence of overwork weakness in some of the study participants.

“Overwork weakness is actually feeling weaker in addition to severe muscle soreness,” Dr. Carter explains. “Regular soreness after working out should not be associated with weakness, nor should the pain be that intense.”

The bottom line is that exercise, when done wisely, is good for your body, mind, and spirit. “I feel like I’m doing something good for myself when I exercise,” explains Seneff, who uses his stationary bike or elliptical trainer for 40 to 45 minutes, four times per week. “If I’ve been in pain before working out, I actually feel better afterwards.” NN

Jennifer Haupt frequently writes health and lifestyle articles for Woman’s Day, AARP: The Magazine, Cure, and Reader’s Digest.



For more information about peripheral neuropathy, see **RESOURCE CENTRAL** on page 46.