

SPECIAL MEN'S HEALTH ISSUE

Intensive boot camp for your back

- Thousands turn to programs of vigorous exercise that build, not just soothe, the muscles.

By Linda Marsa, Special to The Times

AFTER two back surgeries to correct a bulging disc, Andy Alexander didn't want to go under the knife for a third time.

The 36-year-old had always been active, running marathons, skiing, weightlifting and playing football in college. And the back operations had enabled him to resume his active lifestyle. But when the excruciating pain returned in 2003, he couldn't stand for more than five minutes.

This time, Alexander decided to do something different. After doctors ruled out serious structural problems, he embarked on an aggressive physical rehabilitation program tailored to his needs. Three times a week at Spine Care in Los Angeles, Alexander warmed up for 10 minutes on the treadmill or stationary bike, then spent 45 minutes strapped in specially designed Nautilus-like machines to target specific muscles (such as the back, gluteus, abdominals and hamstrings) that support the spinal column but can atrophy from disuse.

A year later, he was back to normal, and he's now able to run and work out regularly. "If I had known about this before," says Alexander, who still goes to Spine Care for monthly tuneups, "I might have avoided surgery."

Alexander, a real estate agent in El Segundo, is among thousands of chronic back-pain sufferers who have gotten better after participating in one of the medically supervised exercise programs that have cropped up nationwide in the last decade.

"This is the next generation in diagnostics and treatment," says Dr. R. David Sibley, an orthopedic surgeon who founded Spine Care, formerly the Spine Institute, as an alternative to surgery 14 years ago. "When you fix the problem, the pain goes away."

Such regimens are based on research that shows exercise relaxes and strengthens cramped muscles. That in turn relieves pain, restores function and improves circulation, speeding healing.

Not everyone who commits to such a program gets better, but the vast majority report Lazarus-like results. "Patients who were once chronically incapacitated by back pain tell me they've gotten their life back," says Dr. Carol Hartigan, a physiatrist at Harvard Medical School and New England Baptist Hospital's Spine Center in Boston, where roughly 20,000 back patients have gone through aggressive physical rehabilitation.

These programs are quite different from conventional physical therapy, which aims to limber up muscles but isn't nearly as intensive. What is needed are not just any exercises, but vigorous workouts that target muscles weakened from disuse, says Dr. Vert Mooney, an orthopedic surgeon at UC San Diego who has championed these techniques.

About 20 million Americans are sidelined by back pain every year, and 80% to 90% feel better within two months. But most severe sufferers don't find lasting relief with injections, massages, physical therapy, chiropractic care or even surgery. Yet recent studies suggest

that even for people in crippling pain, an aggressive exercise regimen may be a wise alternative to surgery.

"There's growing evidence that this boot-camp-style approach can make a real difference," says Dr. Richard Deyo, a back-pain expert at the University of Washington in Seattle.

In 2003, for example, Norwegian researchers compared 64 patients with disc degeneration. Half underwent spinal-fusion surgery to stabilize damaged discs. The other half participated in an intensive exercise program. A year later, the success rate was 76% for the exercisers, compared with 70% for the surgery group, which also experienced an 18% complication rate from the surgery.

And a 1999 study suggests heavy-duty workouts could help sufferers avoid the knife altogether. Sixty patients whose doctors had recommended surgery were enrolled in an intense 10-week exercise program at the Physician's Neck and Back Clinic in Minnesota. Of the 46 who completed the program, three ended up having surgery.

When the back is injured, a person tends to baby the damaged area and use other muscles to compensate. The unused muscles begin to atrophy within two days, making them stiff and more vulnerable to further injury, and exacerbating back pain. And the more they hurt, the less those muscles are used, which triggers a self-perpetuating cycle of deconditioning.

To make sure the weakened muscles get a workout, most of these programs isolate those muscles and exercise them with increasingly heavy weights to the point of fatigue. This process, known as progressive resistance training, builds up the muscles around the spinal column and hastens the healing of ruptured discs and damaged facet joints between the bony vertebrae.

"To get the maximum benefit, you have to use a piece of exercise equipment that will make certain muscles work and blocks out the others," says UC San Diego's Mooney, who is also president of Measurement Driven Rehabilitation Systems Inc., a San Diego company that operates spine-care centers in California and Tennessee. "Home exercises don't isolate the muscles sufficiently. And besides, all of us are lazy and we cheat."

However, even a low-tech approach may help. In a 2004 study, 50 patients in their early 30s with herniated discs took painkillers and iced their backs nightly for 15 minutes. Half also performed Pilates- and yoga-based exercises for 15 minutes three times a week.

A year later, 70% of the exercise group felt better, and 17% had a recurrence. In contrast, a third of the non-exercisers had a significant reduction in pain, and nearly half relapsed.

"Even a minimal program can provide relief," says Dr. Vijay Vad, a sports medicine specialist at New York's Hospital for Special Surgery who conducted the study. "The real key is consistency....This is a lifelong program that needs to be done every day."