

News

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****UT Southwestern researchers say exercise helps with major back injuries

DALLAS -- Patients with chronic major back problems are often labeled "krocks," "goldbricks" or "malingerers." Often their own doctors don't know what to do with them although the syndrome is the number one cause of disability for persons under 45 and the third major cause for persons over that age. Costs from major spinal injury are high both to the individual and to society with lost jobs, splintered families and broken lives following in its wake.

However, two Dallas researchers have reported in a two-year study of patients in a functional restoration program that it is possible for a high percentage of industrial workers to return to the same kinds of jobs they were performing before injury. According to a recent article in the Journal of the American Medical Association, Drs. Tom G. Mayer and Robert J. Gatchel said that 87 percent of the treatment group studied had returned to work after two years. Only 41 percent of the control group that received no treatment had returned to the work force. Gatchel is professor of psychology at The University of Texas Southwestern Medical Center at Dallas, and Mayer is a clinical associate professor of surgery with the institution.

The functional restoration program studied by the UT Southwestern faculty members is modeled on the "no pain, no gain" philosophy of sports medicine often seen in the treatment of knee injuries. Rather than resting a bad back to keep from reinjuring it or stopping any physical activity when there is pain or discomfort, the functional restoration program studied takes a training approach. "It is actually a reconditioning of the back," said Mayer.

Besides the high rate of return to work, the researchers reported that only half as many of the patients participating in the reconditioning program later had another back surgery. In addition, this group had few visits to other health professionals while the comparison group visited physicians, physical therapists and/or chiropractors at a rate that was five times higher than patients who participated in the functional restoration study.

"One of the problems with working with back patients is that there has been no objective quantification of physical functioning, so much of the treatment has

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depended on the patient's subjective reporting," Gatchel said. However, the program studied by the two researchers is using newly developed techniques and equipment that measure strength, endurance and range of motion, giving both the health workers and the patient a realistic idea of progress.

At PRIDE (Productive Rehabilitation Institute of Dallas for Ergonomics), the clinic where the patient studies were done, a team approach is used. Health team members, who include two orthopedic surgeons, nurses, physical therapists and a clinical psychologist, all take part in the treatment program.

Not only are patients evaluated for their physical capacities, they are helped with their coping skills and receive individual counseling. All patients in the study had been injured at least four months before beginning the treatment program, and surgery had been ruled out as an option.

Patients participated in stretching and strengthening exercises individually and attended aerobics classes in groups. Besides working out on equipment that looks like the most challenging devices in a gym or spa, the patients spent hours in a room with equipment that mimics job-related conditions in the real world. There were pipes to crawl through, assembly lines to move equipment through and to hoist on and off, a "four-wheeler" to drive for long periods of time, ladders to climb and a building skeleton to crawl around on. One particularly rough exercise was jumping up and onto a moving "train" since many PRIDE referrals are railroad workers.

Gatchel and Mayer explain that the physical exercising is often difficult for patients with back injuries. Under supervision, the patients must push themselves in order to recondition the injured back. However, the researchers believe their study shows that the results, proven highly effective, are worth the discomfort.

Not to be overlooked is the group-support effect of the training program, said Gatchel. "It's impossible to separate the physical and the psychological effects in a major disability like this. Group members encourage each other and offer emotional support." Those who showed the poorest results were the dropouts who started but did not complete the program, he said.

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Note: The University of Texas Southwestern Medical Center at Dallas comprises Southwestern Medical School, Southwestern Graduate School of Biomedical Sciences and Southwestern Allied Health Sciences School.