



## Spinal Cord Wave Vibration Therapy



### Wave Vibration Therapy for Spinal Cord Injury Victims Video Description

About 15 minutes of vibration exercise produces similar results to those achieved through one hour of conventional resistance training. It also produces less stress on joints, ligaments and tendons.

## Vibration Therapy Stimulates Muscles Weakened in Spinal Cord Injuries

Those who have experienced paralysis due to spinal cord injury can get help through “total body vibration therapy” at the Detroit Medical Center’s Rehabilitation Institute of Michigan. Utilizing a machine called “the wave,” the therapy increases bone density and muscle tone, while reducing muscle spasms.

Take the case of Thea Rosa who lost the feeling in her legs when she was paralyzed after a horseback riding accident. With assistance, Rosa gets on the machine which looks similar to a Stair Master with a large metal plate where the steps would be. She selects a frequency, stands on the plate, starts the vibration and does her exercises with the help of a physical therapist.

While performing squats, calf raises and other basic exercises, the vibration created by the machine produces a shaking movement in her legs. About 15 minutes of vibration exercise produces results similar to those achieved through one hour of conventional resistance training.

“I feel an adrenaline rush whenever the machine goes on,” says Rosa. “There’s a push to go which definitely makes exercising easier.”

William Vickers, a paraplegic, works out on the machine in three-hour sessions three days a week, strengthening his upper body and stimulating his paralyzed legs in the hopes of walking again some day.

“I find that it builds muscle a lot faster than regular workouts,” says Vickers. “I mean six minutes on the wave is like a full body workout.”

Bill Thornton, Vickers’ physical therapist, says that wave therapy is a multi-purpose muscle stimulant. “I put William on the machine and try to get a muscle to contract for one of two reasons – to either fatigue unwanted muscle activity to determine whether there is something I can get him to do on his own, or to activate that muscle in order to build it up.”

Because of the involuntary effect on muscle contraction, almost all muscle fibers are used during the therapy versus about 40 percent use during traditional forms of exercise. Another benefit of vibration therapy is less stress on the joints, ligaments and tendons.

The long-term prognosis for patients such as Rosa and Vickers remains open, but their strength, muscle tone, bone density and range of motion are all being intensified through the use of this therapy.

Wave vibration is available to all qualifying patients at the DMC’s Rehabilitation Institute of Michigan, one of nine hospitals of the Detroit Medical Center where our doctors are ranked among America’s very best physicians. Is it a healthcare revolution? Maybe. We just think it’s a better way to get better. For more information or to schedule an appointment at any DMC facility, call 1-888-DMC-2500.

