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Vibration therapy improves walk, balance in elderly

Orlando, FL - Controlled whole-body vibrations (CWBV) improve quality of life, walk, balance, and motor capacity in elderly patients, according to a new study reported at the annual meeting of the **American College of Rheumatology** [1].



Dr Olivier Bruyere

"All older patients in nursing homes—except those with any contraindications—could benefit from CWBV," says study researcher **Dr Olivier Bruyere** (University of Liege, Liege, Belgium). The apparatus costs roughly €8000, and treatment requires just 10 minutes a day.

Precisely how CWBV works is unclear, he says, but it may somehow improve balance or help build bone similar to the way that exercise does, he speculates.

As previously reported by **rheumawire**, vibration therapy is being investigated as an approach to the prevention and treatment of osteoporosis.

Good vibrations

In the new study, 42 volunteers in a nursing home were randomized to a vibration group or a nontreatment group for 6 weeks. The treatment group underwent 6 weeks of CWBV (4 one-minute series 3 times a week) on a vertical vibrating platform (10 Hz in the first and third series and 27 Hz in the second and fourth ones). The machine used was the Galileo 900® (Orthometrix Inc, White Plains, NY).

After 6 weeks of therapy, patients in the vibrating group showed:

- 143% improvement in physical function.
- 41% improvement in pain.
- 60% increase in vitality.
- 23% improvement in general health.
- 57% improvement in quality of walking as assessed by the Tinetti test (compared with a 2% improvement in control subjects).
- 77% improvement in equilibrium (compared with 1% worsening in controls).
- 39% decrease in time required to get up and go (compared with an increase of 14% among controls).

While it was only a small study, "after just 3 weeks or 9 sessions, we saw a great improvement in get-up-and-go," Bruyere tells **rheumawire**. "Longer studies are needed," he adds. Patients in the new study also did about 10 minutes a day of classical physical exercise.

Denise Mann

Source

1. Bruyere O, Wuidart, MA, et al. Presentation: Controlled whole body vibrations improve health related quality of life in elderly patients. Orlando, FL: American College of Rheumatology: 2003 meeting; October 23-28, 2003: Abstract 1271.

<http://www.jointandbone.org/lite.cfm?23u&%2Fnews%2F200311%2Fnews20031103b%2Ecfm>