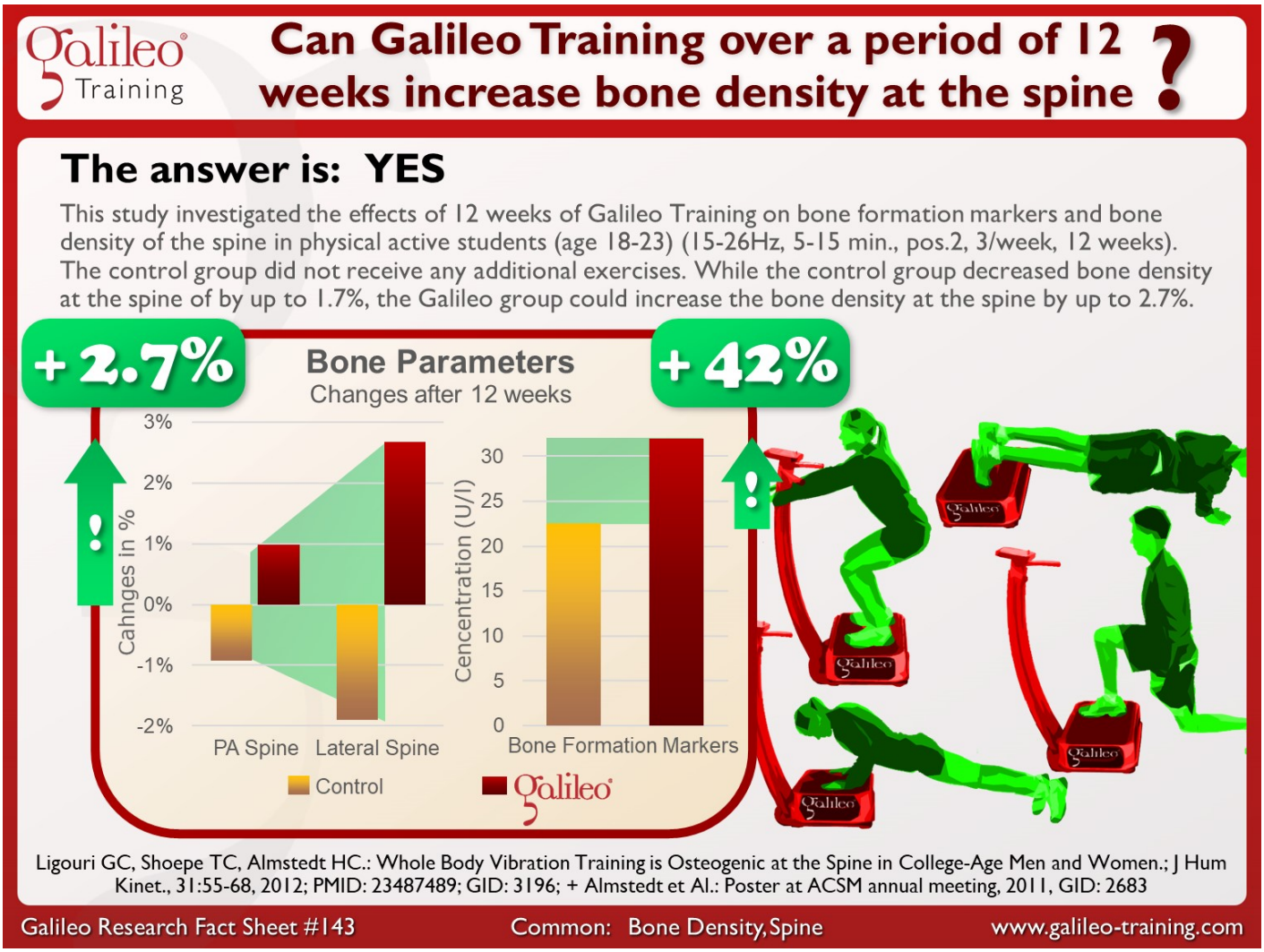

This study examined the effects of 12 weeks of Galileo training on bone mineral density of the spine and bone augmentation markers. The study examined young athletic active students aged 18 to 23 years.

The control group carried out their weekly individual training schedule, the Galileo group received an additional 3 times a week an increasing Galileo training at frequencies between 15 and 26Hz (5-15 minutes).

Six different exercises were used: upright, squat, deadlift, lung, held push-up (static), bent-over rows, jumps (all exercises without additional weight).

While the control group lost, on average, a reduction in spinal bone density of up to 1.7% despite physical activity, the Galileo group was able to increase it by up to 2.7%.

This is a pretty amazing result considering that the maximum build-up rate in healthy young men (for example, according to a Bedrest study # BBR1, # BBR2, # GRFS45, # GRFS127) is a few percent a year!

This study shows once more (as other Galileo studies # GRFS139, # GRFS45, GRFS127) how effective Galileo training can be used for preserving cones and even for bone formation.

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Whole Body Vibration Training is Osteogenic at the Spine in College-Age Men and Women.

Ligouri GC[1], Shoepe TC, Almstedt HC.

Osteoporosis is a chronic skeletal disease characterized by low bone mass which is currently challenging the American health care system.

Maximizing peak bone mass early in life is a cost-effective method for preventing osteoporosis. Whole body vibration (WBV) is a novel exercise method with the potential to increase bone mass, therefore optimizing peak bone and decreasing the risk for osteoporotic fracture.

The aim of this investigation was to evaluate changes in bone mineral density at the hip, spine, and whole body in college-age men and women who underwent a WBV training protocol.

Active men (n=6) and women (n=4), ages 18-22 participated in the WBV training; while an additional 14 volunteers (1 male, 13 female) served as controls.

All participants completed baseline and follow-up questionnaires to assess health history, physical activity, dietary intake, and menstrual history.

The WBV training program, using a Vibraflex 550, incorporated squats, stiff-leg dead lifts, stationary lunges, push-up holds, bent-over rows, and jumps performed on the platform, and occurred 3 times a week, for 12 weeks.

Dual energy x-ray absorptiometry (Hologic Explorer, Waltham, MA, USA) was used to assess bone mineral density (BMD, g/cm(2)).

A two-tailed, t-test identified significantly different changes in BMD between the WBV and control groups at the lateral spine (average change of 0.022 vs. -0.015 g/cm(2)).

The WBV group experienced a 2.7% and 1.0% increase in BMD in the lateral spine and posterior-anterior spine while the control group decreased 1.9% and 0.9%, respectively.

Results indicate that 12 weeks of WBV training was osteogenic at the spine in college-age men and women.

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