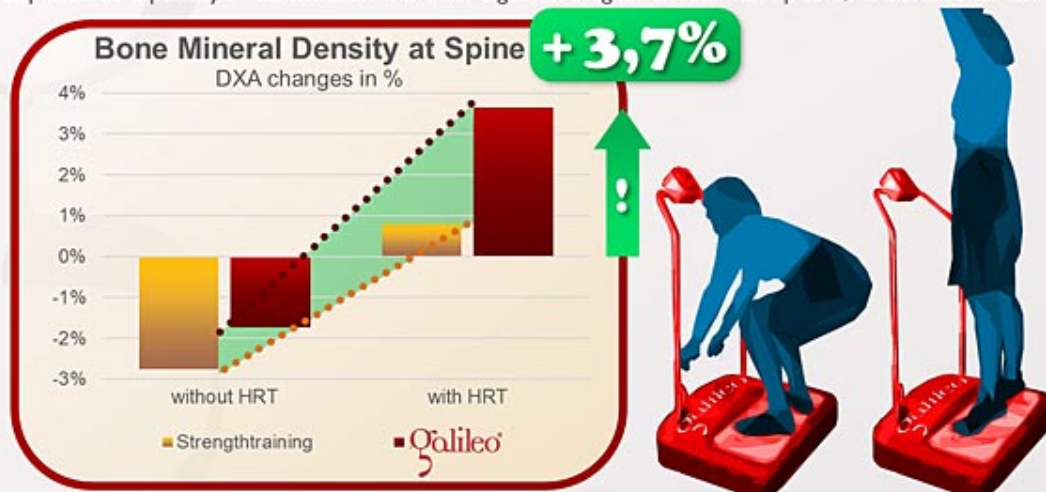


## Galileo Therapy Can Galileo Therapy + HRT be more effective for bone density than strength training + HRT ?

### The answer is: YES

This study investigated the effects of Galileo Therapy vs. machine based strength training over a period of 1 year (60 min./week) (25Hz, Pos. 3-4, up to 15kg add. weights). Both received hormone replacement therapy (HRT). The control group received strength training at 6 different strength machines (Schnell). The Galileo group showed especially in combination with HRT significant higher effects with up to 3,7% increase aBMD.



Influence of Resistance Training with and without vibration on Bone Mass and Strength in Postmenopausal Women; Dissertation, Medizinische Fakultät Charité, FU Berlin, 2002; GID: 1976

Galileo Research Fact Sheet #118 Therapy: Osteoporosis, Bone Mineral Density (aBMD) [www.galileo-therapy.com](http://www.galileo-therapy.com)

This Study investigated the effects of Galileo Therapy compared with strength training in 73 postmenopausal women (age 48 to 64).

Both Therapies were combined with or without hormone replacement therapy (HRT). The study had a duration of almost one year with 60 minutes exercise in all groups.

The Galileo groups received different exhaustive exercises at 25Hz with increasing intensity (position 2 to 4, with up to 15kg additional load).

The control group received also exhaustive exercises using six different strength-training machines (Schnell).

The Galileo group showed significant higher effects than strength training for example for bone mineral density (DXA, aBMD) at the lumbar spine.

Especially in combination with HRT Galileo Therapy resulted in improvements of BMD of up to 3.7% (considering the very slow bone acquisition rate this is a notable result).

In addition aBMD in this group usually decreases per year, which explains why the two interventions without HRT showed slight decreases in aBMD.

In combination with HRT Galileo Therapy could not only compensate part of this effect but also in opposite increase bone mineral density by up to 3.7%.

This study tried to control training intensity and exhaustion by the duration of the individual exercise. The work of Toigo however (#GRFS86, #GRFS28, #GRFS12, #GRFS11) showed that very short but very intense Galileo sessions could be extremely effective.

Therefore an exercise regime focusing on maximum exhaustion in a short time would have been probably even more effective in a much shorter time.

A good setup is the maximum exhaustion within 60 to 90 seconds – to achieve this the exercise intensity can be adjusted by posture —

(e.g. more or less deep squatting, foot position (amplitude), stimulation frequency (above 20HZ: the higher the more intense)

And additional loads in such a way that maximum exhaustion of the stimulation muscle groups can be achieved within one exercise of 60 to 90 seconds.

Repeat this 2-3 times with a break of 1 to 3 minutes in between.

For this population probably 3 exercises would have been sufficient: 2-3 sets deep squats (at 3 different knee angles or with slow variation of knee angle, 2-3 sets on the tip-toes, 2-3 sets push-ups (hands close together) – tis way a total Galileo exercise time could have been between 15 and 20 minutes...