

Vibrations training, Stochastic Resonance Therapy S.R.T.

Vibration training is a new method of muscle training, which is particularly successful in the areas of mobility, pain relief, balance, muscle relaxation and blood circulation. Especially older people with poor performance benefit from this gentle procedure.

But also for sportsmen and high performance sportsmen there is a very effective training to build up strength. The patient is in different body positions (e.g. standing or lying) on a vibration plate which vibrates vertically with a frequency and lifting height adapted to the training goal.

The following effects can be attributed to vibration training:

- Strengthening the muscles: Training increases maximum strength, speed and endurance and reaches muscles that would otherwise be difficult to train.
- Pelvic floor training
- Increase in blood circulation
- Improvement of the skin appearance: Vibration training can have a positive effect on cellulite.
- Increased mobility and coordination (improved balance)
- pain relief
- Rapid rehabilitation: Due to the increased metabolism, healing processes progress faster.
- Increase in bone density: Vibration training prevents osteoporosis (bone loss).

A vibration training is carried out during:

- Loss of power and strength
- Limited mobility (elderly patients)
- muscular atrophy
- Osteopenia (reduction of bone density)
- Osteoporosis (bone loss)
- muscle tensions
- backaches
- circulatory disorders (of the legs and feet)
- Urinary incontinence (bladder weakness)
- sports injuries
- chronic tendon diseases
- Increase of the sport specific maximum strength, fast strength and strength endurance (for health and competitive athletes)
- Overweight (for accompanying weight loss)
- Neurological diseases (e.g. stroke), multiple sclerosis or Parkinson's disease - shaking palsy)

Vibration training has a particularly positive effect on osteoporosis (bone loss). Patients with osteoporosis have an increased loss of bone substance. The bone substance is porous and the bone is more susceptible to fracture.

Through targeted strain on the muscles and thus the bones, it is possible to intervene in this process both preventively and soothingly. Studies have shown that regular vibration therapy greatly increases bone density.

Your benefit

Vibration training is a valuable method for achieving good therapeutic results both in the field of fitness and in the field of medical therapy.

Vibration training enables the very effective stimulation of many muscle groups. In this way, the

effect of the usual 60-minute training can be achieved in 10 minutes.

Vibration training increases strength, improves mobility, coordination and blood circulation, and increases bone density and energy consumption.

Stochastic Resonance Therapy

During the Stochastic Resonance Therapy SRT applied in our practice, your body is exposed to vibrations while standing, which vary in frequency and amplitude according to the randomness principle. Stochastics (randomness) prevents the biological systems in the body (muscles, peripheral nerves, nerve receptors, cerebrospinal fluid, CNS) from getting used to the vibration stimulus.

Thus, SRT improves motor learning and overall movement as a neuro-musculo-skeletal event. This training improves walking ability and balance regulation as well as the functioning and growth of neuronal cell groups. It can improve coordination and reflex control as well as increase bone metabolism and bone strength in the long term.

The current state of studies on whole-body vibration training proves these positive aspects (1). Characteristics of whole-body vibration training are the subjectively lower effort, the low expenditure of time (about 30 minutes), the manageable technical equipment (SRT° or Galileo°) as well as the low requirements for the trainee.

(1) Stem S, Kemmler W. Increase in bone strength through whole-body vibration training Osteology 1/2015:30-41