

OSTEOPOROSIS and BEMERtherapy

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Conventional therapy for osteoporosis is often comprised of a change in nutrition with addition of calcium and vitamin D, avoidance of alcohol and other substances robbing the body of calcium like red meat and sweets, as well as an increase of time spent outdoors, and exercise like swimming or physical therapy. In addition, it is advisable to stop smoking, because the loss of substance during smoking increases by as much as 50 percent. Prescription drugs, which prevent bone loss or promote the formation of bone, can also be given. Oestrogen therapy for women has received mixed reviews due to the possible increased risk for breast cancer.

The piezo-electrical effect of the bone explains the mechanisms on which bone growth, bone structure and bone healing are based. There is proof that with mild pressure on the bone a weak negative electrical current is developed, and with a mild pulling force on the bone a weak positive electrical current is developed. These electrical impulses direct the bone growth and formation of the characteristic spongy bone through calcium deposits, and make sure that the proper kind of bone structures develop, which correspond to the individual anatomical patterns of movement and usage.

One type of treatment that has been used in Orthopaedics for a long time is the therapy with electromagnetic fields. Appropriate, low frequency, pulsing electromagnetic fields induce an electrical current in the bone, which stimulate bone growth and bone healing even in the absence of mechanical weight or movement.

The following effects of electromagnetic fields are of great importance for the treatment of Osteoporosis:

General effects:

- Improvement of circulation
- Increase of oxygen concentration in the blood
- Improvement of the viscosity of the blood
- Activation of cell metabolism
- Improvement of function, differentiation and regeneration of the cells
- Improvement of coordination and communication among individual cells

Effects on bone structure:

- Loss of bone can be slowed or prevented because of the recreation of the *piezo-electrical effect*
- Slow building of bone substance is possible due to the activation of calcium metabolism and stimulation of calcium deposits in the bone
- Indirect effects due to regulation of the hormone system, which plays a crucial role in regulating metabolism of minerals
- Improvement of overall well-being and increased activity will have a positive impact on symptoms of osteoporosis

Therapy with electromagnetic fields, which can be accomplished optimally with the BEMER 3000, is a fairly complex method, which improves metabolism of the bone tissues and its structure, as well as the overall metabolism of the body. In addition to a balanced diet rich in calcium and plenty of exercise outdoors, the following facts should be considered: according to some new findings, calcium found in cow's milk and its products can be difficult to absorb, and an increased need of calcium and phosphorus may require taking food supplements. The following foods are also high in minerals and calcium: green leafy vegetables, seafood, nuts and goat cheese.

User recommendations for Osteoporosis

Week 1-4: Morning/evening on the mat according to the basic program, plus once a day level 10.

Week 5 and up: Morning/evening on the mat according to the basic program, plus twice a day level 10.

For treatment of fractures use the intensive applicator on the fracture site with P4 once a day.

The 1st Physician user study conducted by the Academy for Bioenergetics documented 28 cases of osteoporosis with an average therapy time of eight weeks. Sixty-two percent of patients were reported complaint free, 31 percent improved, and 7 percent without change at the end of the therapy time.

The 2nd Physician user study documented 30 cases of Osteoporosis over a period of 6 weeks. 18 were documented as complaint free (60%), 9 improved (30%), while only 3 reported no change in condition (10%).

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