

OSTEOSTRONG®

What is OsteoStrong?

OsteoStrong is an exercise program for skeletal strength conditioning. Utilizing four pieces of specialized equipment called Spectrum, the OsteoStrong system targets areas of the skeleton most commonly affected by Osteoporosis. For this reason, a growing number of physicians are recommending OsteoStrong to their aging patient base as a non-pharmaceutical and supplementary physical activity for supporting healthy aging.

German physician, Julius Wolff, first discovered that the bone tissue of a healthy organism will adapt to the loads under which they are placed, and the 1892 publishing of Dr. Wolff's work, "The Law of Bone Remodeling", laid the groundwork for myriad studies and clinical trials.

Scientific inquiry has continued to validate Julius Wolff's original findings, and it is increasingly accepted that high intensity impact/resistance exercise can have a significant effect on bone mineral density (BMD) while low impact/intensity exercises have little or no effect on BMD.

The OsteoStrong system was developed by Dr. John Jaquish, PhD; a biomedical engineer who was compelled to find a solution for safely simulating the intensity of impact stress that has been scientifically shown to induce the greatest gains in BMD. His work led to the development of four machines (Spectrum equipment), each designed to create compression stress through different areas of the human skeleton.* Each machine allows users to reach levels of mechanical loading that are usually only possible with significant impact forces. Each Spectrum device emulates these moments of impact without adopting the risk associated with uncontrolled impact.

The Spectrum equipment:

- Places users in optimal biomechanical position for skeletal loading
- Does not utilize exogenous forces for skeletal loading, users self-load thus enhancing safety of use
- Internal computer and digital interface provide real time feedback and tracking over time
- Limits joint movement allowing for greater resistance than is available with most weight machines
- Efficient for busy schedules with sessions times lasting approximately ten minutes

In addition to improvements in BMD, OsteoStrong users report a variety of additional benefits that are common to high intensity resistance exercise. Among these benefits include increased muscular strength, improvements in posture and balance, reductions in joint and back pain, and increases in overall energy.**

The OsteoStrong system is designed to be used once per week for best results. Users of Spectrum are prompted by certified OsteoStrong trainers to push or pull against the resistance of the Spectrum devices to safely create adequate amounts of compressive force on the skeletal structure.



*Radius / Ulna



*Femoral Neck / Total Hip



*Ribs



*Lumbar Spine

** Of course, unique experience and past performance do not guarantee future results. While osteogenic loading has been shown to improve bone density in otherwise healthy humans, there are factors that may or will affect the outcome.