

Why should patients with osteoporosis or osteopenia do strength training?

High-intensity resistance training, in contrast to traditional pharmacological and nutritional approaches for improving bone health in older adults, has the added benefit of influencing multiple risk factors for osteoporosis including improved strength and balance and increased muscle mass.¹

According to the **Surgeon General's 2004 Report on Bone Health and Osteoporosis:**

*It is clear ... that (for) physical activity to specifically benefit bone health (it) should involve loading (stressing) the skeleton..... Evidence suggests that the most beneficial physical activity regimens for bone health include strength-training or resistance-training activities (emphasis added). These activities place levels of loading on bone that are beyond those seen in everyday activities.*²

What role does physical therapy play in the process?

Physician physical therapy referrals based on osteo-related medical need are covered by insurance (based on diagnosis codes below). Metrix designs a care plan for each patient/referral that includes appropriate use of our MetrixStrength resistance training program as osteo-related therapeutic exercise, covered by the patient's health insurance.

733.09 Osteoporosis NEC **733.90 Osteopenia**

One commercial payor is now covering MetrixStrength as therapeutic exercise for a patient with osteopenia. Other commercial insurance companies have stated that therapeutic strength training exercise would be covered if based on medical need.

What about Medicare patients?

Medicare does not recognize 733.09 or 733.90 as diagnoses of medical necessity per se, so osteo-related referrals need to be made under the following diagnosis codes, if appropriate:

781.2 Gait abnormality **781.3 Lack of coordination** **781.92 Abnormal posture**

What is MetrixStrength? Why is it better than other exercise-related activities or lifting weights at a gym, health club, or at home?

MetrixStrength is a slow cadence, high intensity strength training protocol based on osteoporosis research conducted at the University of Florida Dept. of Exercise Science³

- A maximum of two 20-30 minute sessions per week
- Engages all important sites (neck, back, hip, upper arm/forearm, wrist, leg)
- Conducted in street clothing in a private, climate-controlled studio
- Conducted under one-on-one supervision to ensure safety and effectiveness
- Able to build (restore) lean muscle and promote increased flexibility in people of all ages
- Capable of building (restoring) bone density
- Delivers an average client strength gain of 40% in 15 weeks⁴

Studies show that resistance training has a more profound site specific effect than aerobic exercise^{5,6}

MetrixStrength addresses all important strength training-related variables identified in clinical research:

- Resistance training must engage all important sites: neck, back, hip, upper arm/forearm, upper and lower leg in order to provide "whole body benefit"¹
- Resistance training must be very time efficient in order to encourage long-term compliance⁵
- Properly-designed single set resistance training regimens are as effective as regimens that require more time⁷

How much cost, if any, will patients be responsible for?

Patients will be responsible for deductibles and copayments stipulated in their health insurance agreements. We will provide each referral with an insurance verification/benefits determination so that they will know what out of pocket costs are involved.

Is it possible to try MetrixStrength first to see what it's like?

Yes! Anyone is welcome to schedule a no-cost, no-obligation session by calling our Physical Therapy clinic.

You may visit our web site—www.metrixpt.com—for more information on MetrixStrength.

Please call 847-562-0500 for more information, or use the enclosed physical therapy prescription forms for your referrals

1. Layne, Jennifer E.; Nelson, Miriam E. The Effects of Progressive Resistance Training on Bone Density: a Review. *Med. Sci. Sports Exercise*, Vol. 31, No. 1, pp. 25-30, 1999; <http://www.jbmronline.org>
2. Bone Health and Osteoporosis: A Report of the Surgeon General; Chapter 7: Lifestyle Approaches To Promote Bone Health http://www.surgeongeneral.gov/library/bonehealth/chapter_7.html#PhysicalActivity
3. Unpublished study, see <http://www.exercise911.net/documents/superslowosteoporosis.html> for information; additional data on file, Metrix Physical Therapy & Fitness
4. Data on file, Metrix Physical Therapy & Fitness
5. Deborah Kerr et. al. Resistance Training Over 2 Years Increases Bone Mass In Calcium-Replete Postmenopausal Women, *Journal Of Bone And Mineral Research* Volume 16, Number 1, Pp. 175-181 2001
6. Gutin, B., and M. J. Kasper. Can exercise play a role in osteoporosis prevention? A review; *Osteoporosis International*, 2:55-69, 1992
7. Graves JE, et al. Effects Of Reduced Training Frequency On Muscular Strength. *International Journal of Sports Medicine* 9(5):316-319, 1988