



Our Facility

We use a state of the art GE Lunar Prodigy densiometer with the capacity for vertebral fracture assessment (VFA).

If you, or your staff, are interested in trying this technology for yourself, please schedule with Patty von Gruening, our office manager.

She can also provide you with brochures, script pads or whatever other information you might need.

You can reach Patty at ext. 102.

Spruce Street Osteoporosis Center

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Stress fractures frequently Occur from over-training

Typically, metatarsal and "shin" fractures occur in military recruits on forced marches. It is thought that the stress fracture forms when bone does not have time to heal after rigorous activity. As many as 1 in 5 women military recruits is estimated to suffer from a stress fracture.

In a recent study funded by the Department of Defense and presented at the Orthopaedic Research Society's annual meeting in February, 2007, 3,700 women ages 17-35 participated at the Great Lakes Naval Training Center. Half were given supplements with 2,000 mg of calcium and 800 iu of vitamin D per day, while the other half took a placebo. There were 27% fewer stress fractures in the supplemented group in only an eight week training period.

If all 14,441 women military recruits who trained at the Great Lakes center during the past two years were to take supplements, it is estimated that 260 fractures could have been avoided.

This study has important implications for our women athletes. To prevent stress fractures, recommend a rest period of a day or so after rigorous work-outs. In addition, supplementing with twice the recommended amount of calcium and vitamin D: 2000 mg of elemental calcium and 800 iu of vitamin D per day may be of benefit.

If stress fractures recur, underlying metabolic abnormalities should be ruled out with screening laboratory tests, bone x-rays and a measurement of bone mineral density.

Update on Vitamin D deficiency:

For those of you who asked for more precise guidelines on vitamin D repletion (January 2005 Newsletter). Ideal level of 25(OH)vitamin D is > 32 ng/ml. Here is a rule of thumb protocol for normalizing vitamin D. If patients have vitamin D deficiency and they have been taking vitamin D in their MVI and calcium, they can continue taking that, too.

*** Mild Deficiency (20-32 ng/ml)** 1000 to 2000 iu of vitamin D3 per day for 6-8 weeks and recheck.

Moderate Deficiency (9-20 ng/ml) 50,000 iu of vitamin D3 per week for 6-8 weeks and recheck

Severe deficiency (<9 ng/ml) 50,000 iu of vitamin D3 twice weekly for 6-8 weeks and recheck.

Maintenance for patients who have been vitamin D deficient should be in the 1000-2000 iu per day range. Remember to consider malabsorption for vitamin D deficiency. The most accurate test for celiac is the tissue transglutaminase test.

Sources for vitamin D3:

Vitamin Cottage for 1000-2000 iu of vitamin D3. Be sure it is pure D3 without vitamin A

www.biotech.com for 50,000 iu of vitamin D3. It comes in bottles of 100, and we put 8 in an envelope. We used to give it patients: now that the price has gone up a bit, we sell it for \$10.00.

*** I actually use 50,000 iu D3 per week for 6-8 weeks even for the 20-32 range. The highest vitamin D on repeat has been 75 ng/ml, which is not the top of the normal range**