



# Boning Up on Bone Density

July 27, 2010 By [Sean Strub](#)

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I have now been on crutches for five weeks, the incisions from the surgery on my ankle are nearly healed and there is more discussion than ever about HIV and ART-related bone loss.

Two weeks ago I had my annual bone density scan and the results are not encouraging. The most loss was in my spine, at L4, which showed a decline in bone density over the past 12 months of 4.7%. My “T-score”, a measure of the severity of bone loss, is -3.8; the reference range in the report indicates *normal* is at or above -1, *osteopenia* is between -1 and -2.5 and *osteoporosis* is -2.5 or below.

Norra MacReady wrote a good Medscape [article](#), on research presented in Vienna last week about bone density issues in people with HIV.

Patrick W.G. Mallon, MB, PhD, from Mater Misericordiae University Hospital, in Dublin, cited evidence showing that osteopenia, osteoporosis, and fracture risk are significantly higher in people with HIV compared with the general population. In one study of 671 people with HIV in Spain, 98% of whom were on anti-retroviral treatment, 47.5% had osteopenia and 23% had frank osteoporosis.

*"To date, there is not a single antiretroviral regimen that has not been associated with bone loss,"* said Dr. Mallon. Protease inhibitors and tenofovir (Viread) are believed to have the greatest demineralizing effect.

Mallon recommends that every person with HIV be screened using the World Health Organization [Fracture Risk Assessment Tool](#). The test is different by region and race; select appropriately by clicking on the “Calculation Tool” tab.

Those at highest risk, including people with a history of low-impact fractures, postmenopausal women, men older than 50, a low body mass index, co-infection with hepatitis C and anyone who has taken steroids should also consider a [DXA](#) scan.

I had my first DXA scan two years ago, when I was diagnosed with “profound” osteoporosis. I now wish I had gotten a DXA scan many years ago, so I could have measured the rate of bone loss over a longer period of time. That might give better insight into how much of the loss can be attributed to my ART regimen.

I am not sure if I will start taking a [bisphosphonate](#) or not, but I definitely am increasing my Vitamin D and calcium supplementation and rededicating myself to an exercise regimen.

I haven't had any beach time this summer (crutches are difficult to navigate on sand), but I'll try to remedy that soon, as sunshine is also good for building bone density.

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