

# BMD loss occurs early in androgen deprivation therapy

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(HealthDay) -- The highest average change in bone mineral density (BMD) occurs during early treatment of nonmetastatic, hormone-sensitive prostate cancer in men receiving intermittent androgen deprivation therapy (ADT), according to research published online April 9 in the *Journal of Clinical Oncology*.

Evan Y. Yu, M.D., of the University of Washington/Fred Hutchinson Cancer Research Center in Seattle, and colleagues conducted a study involving 56 men with nonmetastatic, hormone-sensitive [prostate cancer](#) to measure the changes in BMD and [fracture risk](#) associated with each cycle of nine months of treatment with intermittent ADT with leuprolide and flutamide.

The researchers found that, during the first on-treatment period, the decrease in spinal BMD averaged 3.4 percent and the decrease in left hip BMD averaged 1.2 percent; both changes were statistically significant. Spine BMD recovery during the first off-treatment period was significant, with an average increase of 1.4 percent. No significant average changes were observed during subsequent treatment periods. After a median of 5.5 years on trial, one patient (1.8 percent) had a trauma-associated compression fracture.

"To our knowledge, this study is the first to

evaluate the dynamics of BMD on intermittent androgen deprivation by looking at DXA scans relative to the treatment cycles of intermittent androgen deprivation. Instead of measuring BMD at baseline and predetermined time points after the initiation of ADT, as was done in the only other report of BMD changes after intermittent androgen deprivation, DXA scans were performed at the beginning of each on- and off-treatment period to more directly assess the impact of testosterone depletion and recovery on BMD changes," the authors write.

Two authors disclosed [financial relationships](#) with Amgen.

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