



# Bone Health Risks Associated with Finasteride and Dutasteride Long-Term Use

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Dear Editor.

We read with great interest the work by Traish [1] on the Health Risks Associated with Long-Term Finasteride and Dutasteride Use: It's Time to Sound the Alarm, recently published in the Journal. Traish [1] describes in a very compelling way the several potential long-lasting harmful effects of these 5-reductase inhibitors. He reported findings related to liver, muscle, kidney and ocular system metabolic adverse effects of these two molecules so often prescribed to men in clinical practice. Osteoporosis is one of the most common inflammatory bone loss condition and is an age-related disorder: Its prevalence increases with age and is actually growing due to the constant aging of the population [2]. Bone loss occurs in men with hypogonadism in which is underdiagnosed and undermanaged. Sex steroids, both androgens and estrogens, exert direct and indirect effects on bone tissue and regulate bone homeostasis. Testosterone exerts direct and indirect effects on bone. Recent studies have investigated bone mass loss in subjects on therapy with these molecules with conflicting results. Dutasteride inhibits dihydrotestosterone production to a greater extent than finasteride and men with osteoporosis have lower levels of this androgen than men with normal bone mineral

density (BMD). The population-based nested case-control study by Lin et al [3] suggested that the use of finasteride could increase osteoporosis diagnosis risk among patients with benign prostatic hyperplasia. Antoniou et al [4] found no difference in the incidence of a new diagnosis of osteoporosis among older men treated with either dutasteride or finasteride but they used administrative data rather than measurement of BMD to identify patients with osteoporosis. It is clear that further studies are needed on the subject. Considering that osteoporosis in men is responsible for significant morbidity and mortality and that low BMD is a good predictor of future fractures they are still disadvantaged by the lack of a proper gender culture [5].

Primary, secondary and tertiary prevention measures in men are still delayed due to the lack of consensus regarding the guidelines for the screening of osteoporosis in men but above all for the lack of awareness, not only of patients but also of doctors, on osteoporosis and its potentially debilitating consequences especially in men. For these reasons it is important to highlight all potential conditions and medications that can cause bone mass reduction in men.

In conclusion, we hope that our reflections may offer additional information in recognizing possible metabol-

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ic adverse effects associated with 5-reductase inhibitors also on skeletal health.

### Conflict of Interest

The authors have nothing to disclose.

### Author Contribution

Conceptualization: MMS, LG, MDM. Supervision: MMS, LG, MDM. Validation: MMS, LG, MDM. Visualization: MMS, LG, MDM. Writing – original draft: MMS, LG, MDM. Writing – review & editing: MMS, LG, MDM.

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