

[Andrologia](#). 2000 May;32(3):125-30.

## **Androgens and osteoporosis.**

[Vanderschueren D](#), [Vandenput L](#).

### **Source**

Laboratory for Experimental Medicine and Endocrinology (LEGENDO), Leuven, Belgium.  
Dirk.Vanderschueren@uz.kuleuven.ac.be

### **Abstract**

Androgen receptors are present in relevant numbers in osteoblasts. Stimulation of androgen receptors in osteoblastic bone marrow stromal cells inhibits the differentiation of osteoclasts in the bone marrow cavity. Androgens not only inhibit osteoclastogenesis but also increase cortical bone formation mainly by stimulating periosteal bone formation. Clinically, androgen action is crucial for the gain of bone mass during puberty and the maintenance of bone mass after puberty. Therefore, androgen replacement is necessary in hypogonadal men. However, the role of androgen replacement in partial androgen deficiency still remains unclear. Thus far, only testosterone has established its role in androgen replacement. However, further clinical and basic research should better define the selective role of androgen versus oestrogen receptor stimulation in male skeletal homeostasis.