

## **Androgen Therapy in Women: Never or Sometimes?**

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Estrogens are the principal sex hormones responsible for female reproductive maturation and sexual characteristics. However, androgens also have important biologic roles in the health and well-being of women, particularly with respect to sexual dysfunction. The physiologic effects of androgens are in part due to their role as precursors for estrogen synthesis, but these hormones also have independent effects on reproductive and nonreproductive tissues in women. Studies of their actions and the effects of androgen deficiency and replacement in women are scarce. There are no clearly established indications for testosterone therapy for women. The primary indication for the prescription of testosterone for women is loss of sexual desire, which causes affected women substantial concern. No formulation has been approved for this purpose and the use of testosterone by women is either off-label or as compounded therapy. Observational studies indicate that testosterone has favorable cardiovascular effects measured by surrogate outcomes. However, associations between endogenous testosterone and the risk of cardiovascular disease and total mortality, particularly in older women, are yet to be established. Clinical trials suggest that exogenous testosterone enhances cognitive performance and improves musculoskeletal health in postmenopausal women. Unmet needs include the availability of approved testosterone formulations for women and studies to elucidate the contribution of testosterone to cardiovascular, cognitive, and musculoskeletal health and the risk of cancer. Here we will discuss the role of androgens in women as well as the indications for androgen therapy in women.