Estradiol is an endogenous estrogenic steroid hormone commonly used in oral contraceptives and hormone replacement therapy (HRT). Estradiol regulates estrous and menstrual reproductive cycles, induces growth in reproductive organs, and increases secretion of luteinizing hormone (LH). Estradiol inhibits acetylcholine-induced vascular constriction in post-menopausal women and inhibits sperm apoptosis in vitro. Estradiol displays some additional anticancer potential, inhibiting growth and proliferation of prostate cancer cells. Estradiol also exhibits antioxidative benefit, inhibiting oxidative stress-induced cell death and damage and inhibiting glutamate-induced neurotoxicity.

References


