

## Core Concepts Summary

1. 29.1 Testosterone, estrogen, and progesterone are the primary hormones contributing to the growth, health, and maintenance of the reproductive system.

Estrogen and progesterone are secreted by the ovary and are responsible for reproductive health in females. Testosterone is secreted by the testes and is responsible for the growth and maintenance of the male reproductive system. The sex hormones are controlled by FSH and LH from the pituitary.

29.2 Low doses of estrogens and progestins are used for contraception.

The most common oral contraceptives contain low doses of an estrogen combined with a progestin. Nearly 100% effective, these drugs act by preventing ovulation. Thromboembolic disease is a potentially serious adverse effect in some clients.

29.3 Estrogens are used for replacement therapy and in the treatment of prostate cancer.

Estrogens are often used to reduce the symptoms and consequences of estrogen loss in menopausal and post-menopausal women. A progestin is sometimes added to reduce the adverse effects of estrogen. Thromboembolic disease is a contraindication for estrogen therapy.

29.4 Progestins are prescribed for dysfunctional uterine bleeding.

Abnormal uterine bleeding may be the result of an imbalance between progesterone and estrogen secretion. Administration of progestins can often reestablish a normal, cyclic menstrual pattern. High doses of progestins are also used as antineoplastics.

29.5 Oxytocin and tocolytics are drugs used to influence uterine contractions.

Oxytocin is administered to stimulate uterine contractions to aid in labor and delivery.

Intranasally, it assists in milk letdown. Mifepristone is a uterine stimulant that is used to prevent and terminate pregnancy. Tocolytics are used to relax uterine smooth muscle so that pregnancy may reach term.

29.6 Androgens are used to treat hypogonadism or delayed puberty in males and breast cancer in females.

Administration of testosterone promotes the appearance of masculine characteristics, a desirable action in males with hypogonadism. Anabolic steroids are testosterone-like drugs taken illegally to increase athletic performance, which may result produce serious, permanent adverse effects on both males and females.

29.7 Erectile dysfunction is a common disorder that may be successfully treated with drug therapy.

Erectile dysfunction is a common disorder with many possible physiologic and psychogenic causes. Sildenafil is effective at promoting more rigid and longer-lasting erections. It is contraindicated in clients taking organic nitrates.

29.8 In its early stages, benign prostatic hyperplasia may be treated successfully with drug therapy.

BPH results in urinary difficulties that may be treated by drug therapy or surgery. Alpha1-blockers relax smooth muscle in the prostate to promote urine flow. Finasteride shrinks the prostate to improve urinary function. Drugs are effective only in mild cases of BPH..