

Sex Steroid

Sex steroids, also known as gonadal steroids, are steroid hormones which interact with vertebrate androgen or estrogen receptors. The term sex hormone nearly always is synonymous with sex steroid.

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Production

Natural sex steroids are made by the gonads (ovaries or testes), by adrenal glands, or by conversion from other sex steroids in other tissues such as liver or fat.

Functions

Sex steroids play important roles in inducing the body changes known as primary sex characteristics and secondary sex characteristics.

The development of both primary and secondary sexual characteristics is controlled by sex hormones after the initial fetal stage where the presence or absence of the Y-chromosome and/or the SRY gene determine development.

Synthetic sex steroids

There are also many synthetic sex steroids. Synthetic androgens are often referred to as anabolic steroids. Synthetic estrogens and progestins are used in methods of hormonal contraception. Diethylstilbestrol (DES) is a synthetic estrogen.

Types

In many contexts, the two main classes of sex steroids are androgens and estrogens, of which the most important human examples are testosterone and estradiol respectively. Other contexts will include progestagen as a third class of sex steroids, distinct from androgens and estrogens. Progesterone is the most important and only naturally occurring human progestagen.

Sex steroids include:

* **androgens:**

- o testosterone
- o androstenedione
- o dihydrotestosterone
- o dehydroepiandrosterone
- o anabolic steroids

* **estrogens:**

- o estradiol
- o diethylstilbestrol

* **progestagens:**

- o progesterone
- o progestins