

Estradiol

Estradiol is a hormone from the estrogen family, which also includes other hormones, such as **estron** and **estriol**. Estrone predominates during menopause. All estrogens have an aromatic ring and a phenolic hydroxyl group.

Estradiol is a female sex steroid hormone, that is synthesized in the ovaries in the corpus luteum, specifically in the granulosa cells. During pregnancy, this hormone is also produced by the placenta and its plasma value in the body rises. It is the most important female hormone from the first period until menopause. During menopause, a small amount of this hormone is produced by the liver and adrenal glands.

Corpus luteum ovaries, placenta and adrenal glands
ovaries, uterus, mammary gland, bones
cytoplasmic estrogen receptor

Effects and influence of estradiol

- Germ cell maturation,,
- Tissue development during blastocyst implantation,
- Timing of ovulation - the menstrual cycle,
- Creating a pregnancy-suited environment inside uterus,
- Induction of the proliferative phase of the menstrual cycle,
- Birth,
- Lactation,
- Anabolic effects on bones and cartilage - growth promotion.

Links

Related articles

- Estrogens
- Gestagens
- Testosterone
- Menstruation

Used literature

- KOOLMAN, Jan – RÖHM, Klaus-Heinrich. *Barevný atlas biochemie*. 1. edition. Praha : Grada, 2012. 512 pp. ISBN 978-80-247-2977-0.
- MURRAY, Robert Kincaid – BENDER, David A – BOTHAM, Kathleen M, et al. *Harperova ilustrovaná biochemie*. 5. edition. Praha : Galén, 2012. 730 pp. ISBN 978-80-7262-907-7.
- ROKYTA, Richard, et al. *Fyziologie a patologická fyziologie : pro klinickou praxi*. 1. edition. 2015. 712 pp. ISBN 978-80-247-4867-2.

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