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Therapeutic Estrone

National Cancer Institute

Source

National Cancer Institute. *Therapeutic Estrone*. NCI Thesaurus. Code C484.

The synthetic form of a naturally occurring estrogen estrone. Estrone diffuses through the cell membrane and binds to and subsequently activates the nuclear estrogen receptor found in the reproductive tract, breast, pituitary, hypothalamus, liver, and bone. The activated hormone-receptor complex gets translocated to the nucleus where it binds to the estrogen response element on the DNA and promotes the transcription of target genes involved in the functioning of the female reproductive system and secondary sex characteristics. Estrone increases the hepatic synthesis of sex hormone binding globulin (SHBG), thyroid-binding globulin (TBG), and other serum proteins, as well as suppresses the release of follicle-stimulating hormone (FSH) and luteinizing hormone (LH) from the anterior pituitary.