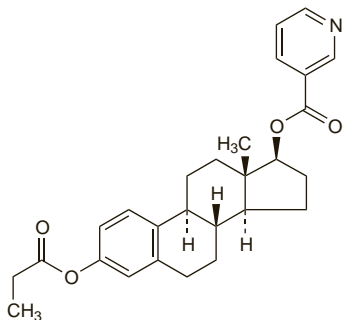


Estrapronicate (rINN)

Estrapronicato; Estrapronicatum. Oestradiol 17-nicotinate 3-propionate.

Эстрапроникат
C₂₇H₃₁NO₄ = 433.5.
CAS — 4140-20-9.

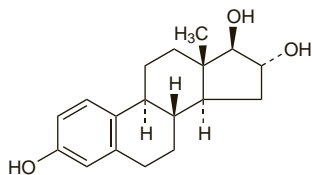
**Profile**

Estrapronicate is a derivative of estradiol (p.2097) with nicotinic acid. It has been used as an ingredient of a combined preparation with an anabolic steroid and a progestogen for osteoporosis.

Estriol (BAN, rINNM)

Estriol; Estriolis; Estriolum; Follicular Hormone Hydrate; Oestriol; Östriol; Östriol; Theelol. Estra-1,3,5(10)-triene-3,16 α ,17 β -triol.

Эстриол
C₁₈H₂₄O₃ = 288.4.
CAS — 50-27-1.
ATC — G03CA04.
ATC Vet — QG03CA04; QG03CC06.



Pharmacopoeias. In *Eur.* (see p.vii), *Jpn.* and *US.*

Ph. Eur. 6.2 (Estriol). A white or almost white crystalline powder. Practically insoluble in water; sparingly soluble in alcohol.
USP 31 (Estriol). A white or practically white, odourless, crystalline powder. Insoluble in water; sparingly soluble in alcohol; soluble in acetone, in chloroform, in dioxan, in ether, and in vegetable oils. Store in airtight containers.

Estriol Sodium Succinate (BAN, rINNM)

Estriol, Succinate Sodique d'; Estrioli Natrii Succinas; Oestriol Sodium Succinate; Succinato sódico de estriol. Disodium 3-hydroxyestra-1,3,5(10)-triene-16 α ,17 β -diyl disuccinate.

Эстриола Натрия Сукцинат
C₂₆H₃₀Na₂O₉ = 532.5.
CAS — 113-22-4.
ATC — G03CA04.
ATC Vet — QG03CA04.

Estriol Succinate (BAN, rINN)

Estriol, Succinate d'; Estrioli Succinas; Estriolisuksinaatti; Estriol-succinat; Oestriol Succinate; Succinato de estriol. 3-Hydroxyestra-1,3,5(10)-triene-16 α ,17 β -diyl di(hydrogen succinate).

Эстриола Сукцинат
C₂₆H₃₂O₉ = 488.5.
CAS — 514-68-1.
ATC — G03CA04.
ATC Vet — QG03CA04.

Profile

Estriol is a naturally occurring oestrogen with actions and uses similar to those described for estradiol (p.2097). It is claimed to have only a mild proliferative effect on the endometrium.

It is used for menopausal HRT (p.2071). When oestrogens are given to women with a uterus, a progestogen is required, particularly if used long term. For short-term treatment, oral doses of estriol have been 0.5 to 3 mg daily given for one month followed by 0.5 to 1 mg daily. Estriol has also been given with other natural oestrogens such as estradiol and estrone (see below); usual doses of estriol have ranged from about 0.25 to 2 mg daily. Estriol may be used intravaginally for the short-term treatment of

menopausal atrophic vaginitis and kraurosis vulvae. A dose of 500 micrograms may be given as a 0.01% or 0.1% cream or as a pessary; initial treatment may be given once daily, then reduced to twice each week.

Estriol has also been given orally for infertility (p.2080) caused by poor cervical penetration, in a dose of 0.25 to 1 mg daily on days 6 to 15 of the menstrual cycle.

Estriol succinate has also been given orally in the treatment of menopausal disorders. The sodium succinate salt has been used parenterally in the treatment of haemorrhage and thrombocytopenia.

Preparations

BP 2008: Estriol Cream.

Proprietary Preparations (details are given in Part 3)

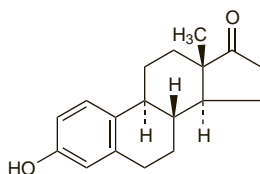
Arg.: Colpoestriol; Orgestriol; **Austral.:** Ovestin; **Austria:** Ortho-Gynest; Ovestin; Styntanon; **Belg.:** Aacifemine; Ortho-Gynest; **Braz.:** Estriopax; Hormocervix; Hormoniol; Ovestriol; Styntanon; **Chile:** Ovestin; Sina-pause; Vacidox; **Cz.:** Ortho-Gynest; Ovestin; **Denm.:** Ovestin; **Fin.:** Ovestin; Pausanol; **Fr.:** Gydrelle; Physiogine; Trophicreme; **Ger.:** Cordes Estriol; Gynasaf; OeKolp; Oestro-Gynaedron M; Ortho-Gynest; Ovestin; Synapause E; Xaprio; **Gr.:** Ovestin; **Hong Kong:** Ovestin†; **Hung.:** Estrokad; Ortho-Gynest; Ovestin; **India:** Evalon; **Indon.:** Ovestin; **Irl.:** Ortho-Gynest†; **Israel:** Ortho-Gynest; Ovestin; **Ital.:** Colpogyn; Ortho Gynest Depot; Ovestin; Trofogin; **Jpn.:** Estriol; **Mex.:** Ortho-Gynest; Ovestin; Sina-pause; **Neth.:** Synapause-E; **Norw.:** Ovestin; **NZ:** Ovestin; **Philipp.:** Ovestin; **Pol.:** OeKolp; Ortho-Gynest; Ovestin; **Port.:** Ovestin; Pausigin; Synapausaf; **Rus.:** Ovestin (Овестин); **S.Afr.:** Synapause; **Spain:** Ovestinon; **Swed.:** Ovestin; **Switz.:** Oestro-Gynaedron Nouveau; Ortho-Gynest; Ovestin; **Thai:** Ovestin†; **Turk.:** Estrolem; Ovestin; **UK:** Ortho-Gynest; Ovestin; **Venez.:** Ortho-Gynest; Ovestin.

Multi-ingredient Arg.: Tropivag Plus; **Austria:** Gynoflor; **Belg.:** Gynoflor; **Cz.:** Cyclo-Menorette†; CycloOstrogynal†; Gynoflor; **Fr.:** Florgynal; Trophigil; **Ger.:** Cyclo-Menorette; CycloOstrogynal; Gynoflor; NeoOstrogynal†; Oestrogol N†; **Hong Kong:** Hormonin; **Hung.:** Cyclo-Menorette†; Gynoflor; **Port.:** Gynoflor; **Switz.:** Gynoflor; **Turk.:** Gynoflor; **UK:** Hormonin.

Estrone (BAN, rINN)

Estron; Estrona; Estroni; Estronium; Folliculina; Follicular Hormone; Folliculin; Kethoxyhydroxyestrin; Oestrone; Östron. 3-Hydroxyestra-1,3,5(10)-trien-17-one.

Эстрон
C₁₈H₂₂O₂ = 270.4.
CAS — 53-16-7.
ATC — G03CA07.
ATC Vet — QG03CA07; QG03CC04.



Pharmacopoeias. In *US.*

USP 31 (Estrone). Odourless, small white crystals or white to creamy-white crystalline powder. Practically insoluble in water; soluble 1 in 250 of alcohol and 1 in 110 of chloroform at 15°; soluble 1 in 50 of boiling alcohol, 1 in 33 of boiling acetone, 1 in 145 of boiling benzene, and 1 in 80 of boiling chloroform; soluble 1 in 50 of acetone at 50°; soluble in dioxan and in vegetable oils; slightly soluble in solutions of fixed alkali hydroxides. Store in airtight containers at a temperature of 25°, excursions permitted between 15° and 30°. Protect from light.

Profile

Estrone is a naturally occurring oestrogen with actions and uses similar to those described for estradiol (see p.2097).

For menopausal HRT (see p.2071) estrone has been given orally at a dose of 1.4 to 2.8 mg daily in a cyclical or continuous regimen, as a combination product with estradiol and estriol (see above). Estrone has also been given by intramuscular injection in oily solutions and aqueous suspensions. When used specifically for menopausal atrophic vaginitis, estrone has been given vaginally. If used in women with a uterus, estrone by any route should be given with a progestogen.

Preparations

USP 31: Estrone Injectable Suspension; Estrone Injection.

Proprietary Preparations (details are given in Part 3)

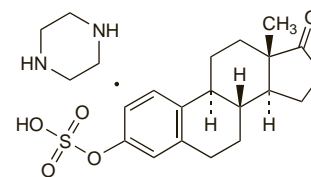
USA: Kestrone.

Multi-ingredient Braz.: Gineburnof†; **Fin.:** Senikolp†; **Fr.:** Synergon; **Hong Kong:** Hormonin; **Spain:** Cicatral; Grietalgen; Grietalgen Hydrocort†; **Thai.:** Metharmon-F; **Turk.:** Synergon; **UK:** Hormonin.

Estropiate (BAN)

Estropipato; Piperazine Estrone Sulfate; Piperazine Oestrone Sulphate. Piperazine 17-oxoestra-1,3,5(10)-trien-3-yl hydrogen sulphate.

Эстропилате
C₁₈H₂₂O₅S₂C₄H₁₀N₂ = 436.6.
CAS — 7280-37-7.



Pharmacopoeias. In *Br.* and *US.*

BP 2008 (Estropiate). A white or almost white crystalline powder. Very slightly soluble in water, in alcohol, in chloroform, and in ether.

USP 31 (Estropiate). A white to yellowish-white fine crystalline powder, odourless or may have a slight odour. Very slightly soluble in water, in alcohol, in chloroform, and in ether; soluble 1 in 500 of warm alcohol; soluble in warm water. Store in airtight containers.

Adverse Effects and Precautions

As for oestrogens in general (see Estradiol, p.2097). See also under Hormone Replacement Therapy, p.2071.

Interactions

See under Hormone Replacement Therapy, p.2076.

Uses and Administration

Estropiate is a semisynthetic conjugate of estrone with piperazine that is used for menopausal HRT (see p.2076). Its action is due to estrone (see above) to which it is hydrolysed in the body.

Estropiate is given orally for the short-term treatment of menopausal symptoms; suggested doses have ranged from 0.75 to 3 mg daily, given cyclically or continuously; doses up to 6 mg daily have also been given cyclically. When used longer term for the prevention of postmenopausal osteoporosis a daily dose of 0.75 or 1.5 mg is given cyclically or continuously. In women with a uterus estropiate should be used with a progestogen. Estropiate has also been used short term for menopausal atrophic vaginitis as a vaginal cream containing 0.15%; 2 to 4 g of cream is applied daily. It is also given orally in the treatment of female hypogonadism, castration, and primary ovarian failure in doses of 1.5 to 3 mg daily, in a cyclical regimen; higher doses of up to 9 mg daily given cyclically have also been used.

Preparations

BP 2008: Estropiate Tablets;

USP 31: Estropiate Tablets; Estropiate Vaginal Cream.

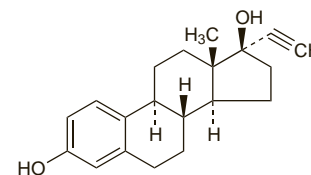
Proprietary Preparations (details are given in Part 3)

Austral.: General; Ogen; **Canada.:** Ogen; **Indon.:** Ogen; **Irl.:** Harmogen†; **Mex.:** Ogen†; **S.Afr.:** Ortho-Est; **UK:** Harmogen; **USA:** Ogen; Ortho-Est†.

Ethinylestradiol (BAN, rINN)

Aethynylloestradiolum; Ethinyl Estradiol; Ethinylestradiol; Ethinylestradiolum; Ethinylloestradiol; Etinilestradiol; Etinilestradiolis; Etinilöstradiol; Etinilösstradiol; Etinylestradiol; Etinylestradiolis; Etinylestradiol; NSC-10973. 17 α -Ethinylestra-1,3,5(10)-triene-3,17 β -diol; 19-Nor-17 α -pregna-1,3,5(10)-trien-20-yne-3,17 β -diol.

ЭТИНИЛЭСТРАДИОЛ
C₂₀H₂₄O₂ = 296.4.
CAS — 57-63-6.
ATC — G03CA01; L02AA03.
ATC Vet — QG03CA01; QL02AA03.



NOTE. Compounded preparations of ethinylestradiol may be represented by the following names:

- Co-cyprindiol (BAN)—ethinylestradiol 35 parts and cyproterone acetate 2000 parts (w/w).

Pharmacopoeias. In *Chin.*, *Eur.* (see p.vii), *Int.*, *Jpn.* and *US.*

Ph. Eur. 6.2 (Ethinylestradiol). A white to slightly yellowish-white, crystalline powder. Practically insoluble in water; freely soluble in alcohol; dissolves in dilute alkaline solutions. Protect from light.

USP 31 (Ethinyl Estradiol). A white to creamy white, odourless, crystalline powder. Insoluble in water; soluble in alcohol, in chloroform, in ether, in vegetable oils, and in solutions of fixed alkali hydroxides. Store in nonmetallic airtight containers. Protect from light.