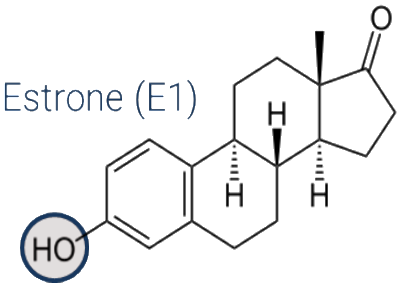
GENESIS 2024

ESTETROL: E4

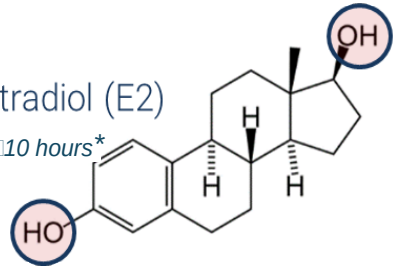
ESTROGÈNES NATURELS HUMAINS

Estrone (E1)

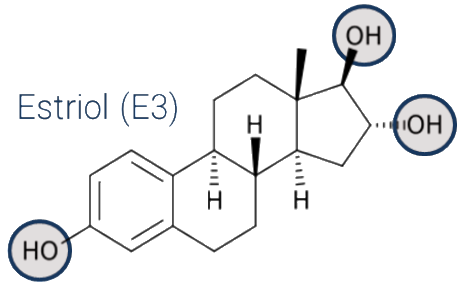


17β- Estradiol (E2)

*Half-life: 2□10 hours**

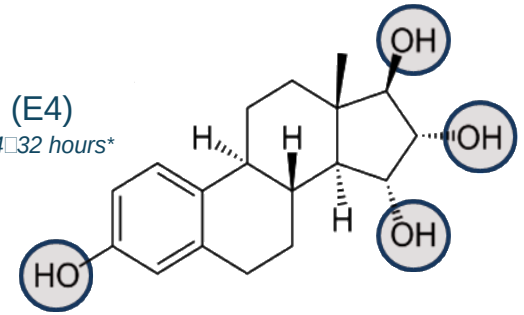


Estriol (E3)



Estetrol (E4)

*Half-life: 24□32 hours**



*Extensive variable data / depending on particle size

Visser M et al. Climacteric 2008 | Data on file Mithra Pharmaceuticals

ESTETROL (E4)

- Produit par le foie foetal humain[1,2]
- Détecté dès la 9ème semaine de grossesse dans l'urine maternelle[3]
- Taux plasmatiques foetaux 12 fois supérieurs aux taux maternels[4]
- Longue demi-vie (24□32 heures)[5,6]
- Conçu par la nature, synthétisé à partir d'une source végétale (soja)[6]
- **Estrogène Natif ayant une activité tissulaire selective (NEST, N**ative **E**strogen with **S**elective **T**issue action)[7,8]

[1]Cantineau R et al. J Steroid Biochem 1985 | [2]Hagen AA et al. Acta Endocrinol 1965 | [3]Heikkilä J. et al. J. Steroid Biochem 1971 [4]Holinka CF et al. J. Steroid Biochem Mol Biol 2008 | [5]Visser M et al. Climateric 2008 | [6]Data on file Mithra Pharmaceuticals [7]Foidart JM et al. 2019 In: Brinton RD et al. (eds.) 2019. Sex Steroids' Effects on Brain, Heart and Vessels. ISGE Series | [8]Arnal JF et al. Physiol Rev 2017

E4 EST UN NATIVE ESTROGEN WITH SELECTIVE TISSUE ACTION REPOSANT SUR UN MÉCANISME D'ACTION UNIQUE

E4 agit différemment selon le type de tissu:

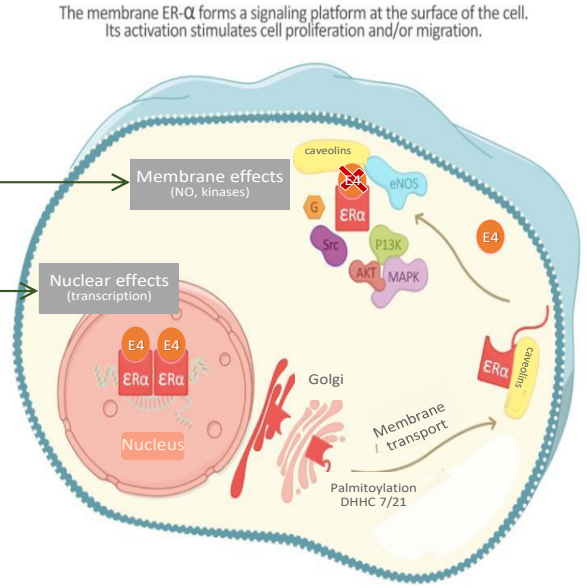
Antagoniste sur l'ERα membranaire

- E4 bloque le membrane estrogen receptor[1-3]
- E4 : effet neutre sur le foie contrairement aux autres estrogènes [1-3]
- E4 : faible impact sur le sein normal ou cancéreux[4-7]

Agoniste sur le nuclear ERα

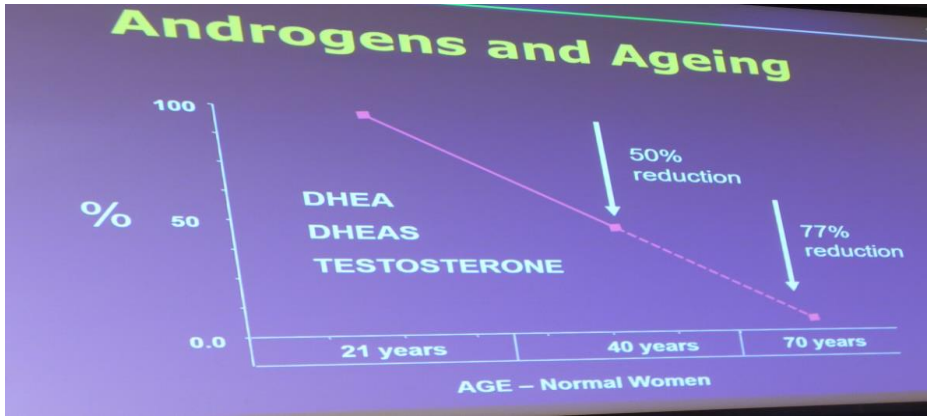
- E4 active le nuclear estrogen receptor[1-3]
- E4 : importante activité estrogénique sur le vagin, l'endomètre, l'os, et le système cardio-vasculaire, entraînant des effets bénéfiques[1-3]

E4: Estetrol | ER: estrogen receptor | NO: nitric oxide



[1] Abot et al. EMBO Mol Med 2014 | [2]Foidart JM et al. In: Brinton RD et al. (eds.) 2019. Sex Steroids' Effects on Brain, Heart and Vessels. ISGE Series
[3]Arnal JF et al. Physiol Rev 2017 | [4]Giretti et al. Front Endocrinol (Lausanne) 2014 | [5]Gérard et al. J Endocrinol 2015 | [6]Singer CF et al. Carcinogenesis 2014 | [7]Visser M et al. Horm Mol Biol Clin Invest 2012

Les autres traitements



- Et les androgénes?
  DHEA, Testosterone?

- Les traitements non hormonaux:
- Les phytoestrogénes?,les plantes?Le pollen; l'homéopathie
- ***Fezolinetan(VEOZA) 45mg ;***

Non-hormonal selective neurokinin(NK3) receptor antagonist (Laboratoires Astellas)
réduction significative des bouffées de chaleur

Essais : Diarrhée, Insomnie,

Augmentation Alanine aminotransferrase(ALT) et
Aspartate aminotransferrase(AST)

- Acupuncture, hypnose, Yoga…

- Mesures hygieno-diététiques.

Management of perimenopausal and menopausal symptoms

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Cite this as: *BMJ* 2023;382:e072612

Abstract

Most women worldwide experience menopausal symptoms during the menopause transition or postmenopause. Vasomotor symptoms are most pronounced during the first four to seven years but can persist for more than a decade, and genitourinary symptoms tend to be progressive. Although the hallmark symptoms are hot flashes, night sweats, disrupted sleep, and genitourinary discomfort, other common symptoms and conditions are mood fluctuations, cognitive changes, low sexual desire, bone loss, increase in abdominal fat, and adverse changes in metabolic health. These symptoms and signs can occur in any combination or sequence, and the link to menopause may even be elusive. Estrogen based hormonal therapies are the most effective treatments for many of the symptoms and, in the absence of contraindications to treatment, have a generally favorable benefit:risk