

Menopausal hormone therapy

Various menopausal hormonal preparations are available. Different routes of administration can be used for individual hormones. The routes of administration for estrogen are oral, transdermal (patches, gels and spray), subcutaneous (implants) and vaginal. The availability of individual preparations varies worldwide.

Types of menopausal hormone therapy (MHT)

- The main components of MHT are **estrogen** and **progestogens**. Other agents include **tibolone** and **bazedoxifene**, as well as some **plant-derived hormone preparations**.
- Estrogen-alone MHT is given to hysterectomized women.
- The routes of administration for estrogen are oral, transdermal (patches, gels and spray), subcutaneous (implants) and vaginal.
- Progestogens are added to estrogen for non-hysterectomized women to reduce the increased risk of endometrial hyperplasia and carcinoma which occurs with estrogen alone.
- Women who take low-dose vaginal estrogen do not need a progestogen.
- Progestogens can be administered into the uterus itself with an **intra-uterine device** as well as orally or transdermally.
- MHT does not provide contraception unless intrauterine progestogens are used.

Menopausal hormone therapy is also referred to as hormone replacement therapy or HRT.

- **Tibolone** is a synthetic steroid with estrogenic, progestogenic and weak androgenic activity used to manage menopausal symptoms and urogenital atrophy in postmenopausal women.
- **Bazedoxifene** is a selective estrogen receptor modulator (SERM) used for the treatment of postmenopausal osteoporosis and may be combined with estrogen for endometrial protection.
- 'Bioidentical hormones' is a term used to describe **plant-derived preparations** (like approved MHT drugs) modified to be structurally identical to human hormones such as estradiol and progesterone. There are concerns about unlicensed custom-compounded preparations which have not been approved by government agencies (such as the US Food and Drug Administration or the European Medicines Agency), unlike conventional MHT products.

Estrogens used in MHT

These include:

- estradiol
- conjugated estrogens (equine or plant-based)
- estriol

Progestogens used in MHT

These include:

- natural progesterone
- dydrogesterone
- medroxyprogesterone acetate (MPA)
- megestrol acetate
- cyproterone acetate
- nomegestrol acetate
- norethisterone (also called norethindrone)
- norgestrel
- levonorgestrel
- desogestrel
- drospirenone

Further information

EMAS CareOnline 2020 <https://emas-online.org/emas-careonline>

The essential menopause curriculum for healthcare professionals: A European Menopause and Andropause Society (EMAS) position statement (2022) <https://doi.org/10.1016/j.maturitas.2021.12.001>