Menopausal hormone therapy: Risk of breast cancer

Fear of breast cancer (BC) may deter the prescription of menopausal hormone therapy (MHT) and make women reluctant to take it long term. However, in women with a low underlying risk of BC (i.e. most of the population), the symptomatic benefits of MHT for up to five years will exceed the potential harm.

Key trials providing evidence

- 2019 Collaborative Group for Hormonal Risk Factors (CGHFBC)
- Women's Health Initiative (WHI) 2020 long-term follow-up

MHT and breast cancer risk

- Most women will not be diagnosed with BC as a result of MHT
- In women with **premature ovarian insufficiency**, years of MHT exposure should be calculated from age 50 rather than from the age at initiation
- There is insufficient evidence to recommend whether time since menopause should influence decision-making when initiating MHT
- Risk is not increased in overweight or obese women using MHT

Unopposed estrogen

- Associated with **little or no change in risk**, and no evidence of a dose–response effect
- No increased risk with **vaginal estrogen**
- Risk may be increased among past users

Combined MHT

- Can be associated with a **duration-dependent increased risk**
- Although **continuous combined MHT** carries a higher risk than **sequential MHT**, that risk is only around 10 additional cases per 1000 women aged 50–59 with up to 14 years of use
- Risk differs according to the progestogen used (higher with medroxyprogesterone acetate, levonorgestrel and norethisterone; lower with dydrogesterone and progesterone)
- The risk may remain slightly elevated after stopping combined MHT but declines over time

MHT and BC mortality

- In women at population risk, the overall mortality risk–benefit ratio favors both **unopposed** and **combined MHT**
- **Unopposed MHT** may be associated with a reduction in BC mortality
- **Combined MHT** is not associated with an increased risk of BC mortality

Women and healthcare professionals need to put the risk into clinical context. Over five years in women aged 50–59, postmenopausal overweight and obesity are associated with approximately 4 and 10 excess BC cases per 1000 women, respectively, and alcohol intake with 8–11 per 1000, while five years of combined MHT is associated with 8–10 per 1000 and unopposed estrogen is associated with little or no excess risk.

Further information

British Menopause Society (2025). Tool for clinicians. Fast facts: HRT and breast cancer risk https://thebms.org.uk/wp-content/uploads/2025/09/12-NEW-BMS-ToolsforClinicians-Fast-Facts-HRT-and-Beast-Cancer-Risk-SEPT2025-B.pdf

European Menopause and Andropause Society EMAS