

Understanding the risks of breast cancer



A comparison of lifestyle risk factors versus Hormone Replacement Therapy (HRT) treatment.

Difference in breast cancer incidence per 1,000 women aged 50-59.

Approximate number of women developing breast cancer over the next five years.

NICE Guidance, Menopause: Diagnosis and management
November 2015

23 cases of breast cancer diagnosed in the UK general population



An additional four cases in women on combined hormone replacement therapy (HRT)



Four fewer cases in women on oestrogen only Hormone Replacement Therapy (HRT)



An additional four cases in women on combined hormonal contraceptives (the pill)



An additional five cases in women who drink 2 or more units of alcohol per day



Three additional cases in women who are current smokers



An additional 24 cases in women who are overweight or obese (BMI equal or greater than 30)



Seven fewer cases in women who take at least 2½ hours moderate exercise per week



www.womens-health-concern.org
Reg Charity No: 279651
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Women's Health Concern is the patient arm of the BMS.
We provide an independent service to advise, reassure and educate women of all ages about their health, wellbeing and lifestyle concerns.

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[NICE NG23 Guidance](#)

Table 1 Absolute rates of coronary heart disease for different types of HRT compared with no HRT (or placebo), different durations of HRT use and time since stopping HRT for menopausal women

| | | Difference in coronary heart disease incidence per 1000 menopausal women over 7.5 years (95% confidence interval) (baseline population risk in the UK over 7.5 years: 26.3 per 1000¹) | | | |
|----------------------------------|-------------------------------------|---|-----------------------------|-------------------------------|-----------------------------------|
| | | Current HRT users | Treatment duration <5 years | Treatment duration 5–10 years | >5 years since stopping treatment |
| Women on oestrogen alone | RCT estimate ² | 6 fewer (-10 to 1) | No available data | No available data | 6 fewer (-9 to -2) |
| | Observational estimate ³ | 6 fewer (-9 to -3) | No available data | No available data | No available data |
| Women on oestrogen + progestogen | RCT estimate ² | 5 more (-3 to 18) | No available data | No available data | 4 more (-1 to 11) |
| | Observational estimate ³ | No available data | No available data | No available data | No available data |

Table 2 Absolute rates of stroke for different types of HRT compared with no HRT (or placebo), different durations of HRT use and time since stopping HRT for menopausal women

| | | Difference in stroke incidence per 1000 menopausal women over 7.5 years (95% confidence interval) (baseline population risk in the UK over 7.5 years: 11.3 per 1000¹) | | | |
|----------------------------------|-------------------------------------|---|-----------------------------|-------------------------------|-----------------------------------|
| | | Current HRT users | Treatment duration <5 years | Treatment duration 5–10 years | >5 years since stopping treatment |
| Women on oestrogen alone | RCT estimate ² | 0 (-5 to 10) | No available data | No available data | 1 more (-4 to 9) |
| | Observational estimate ³ | 3 more (-1 to 8) | No available data | No available data | No available data |
| Women on oestrogen + progestogen | RCT estimate ² | 6 more (-2 to 21) | No available data | No available data | 4 more (-1 to 13) |
| | Observational estimate ³ | 4 more (1 to 7) | No available data | No available data | No available data |

Table 3 Absolute rates of breast cancer for different types of HRT compared with no HRT (or placebo), different durations of HRT use and time since stopping HRT for menopausal women

| | | Difference in breast cancer incidence per 1000 menopausal women over 7.5 years (95% confidence interval) (baseline population risk in the UK over 7.5 years: 22.48 per 1000¹) | | | |
|----------------------------------|-------------------------------------|---|-----------------------------|-------------------------------|-----------------------------------|
| | | Current HRT users | Treatment duration <5 years | Treatment duration 5–10 years | >5 years since stopping treatment |
| Women on oestrogen alone | RCT estimate ² | 4 fewer (-11 to 8) | No available data | No available data | 5 fewer (-11 to 2) |
| | Observational estimate ³ | 6 more (1 to 12) ⁴ | 4 more (1 to 9) | 5 more (-1 to 14) | 5 fewer (-9 to -1) |
| Women on oestrogen + progestogen | RCT estimate ² | 5 more (-4 to 36) | No available data | No available data | 8 more (1 to 17) |
| | Observational estimate ³ | 17 more (14 to 20) | 12 more (6 to 19) | 21 more (9 to 37) | 9 fewer (-16 to 13) ⁵ |

HRT, hormone replacement therapy; RCT, randomised controlled trial
For full source references, see Appendix M in the [full guideline](#).
¹ Office for National Statistics (2010) [breast cancer incidence statistics](#).
² For women aged 50–59 years at entry to the RCT.
³ Observational estimates are based on cohort studies with several thousand women.
⁴ Evidence on observational estimate demonstrated very serious heterogeneity without plausible explanation by subgroup analysis.
⁵ Evidence on observational estimate demonstrated very serious imprecision in the estimate of effect.

Table 4 Absolute rates of any fragility fracture for HRT compared with no HRT (or placebo), different durations of HRT use and time since stopping HRT for menopausal women

| | | Difference in any fragility fracture incidence per 1000 menopausal women (95% confidence interval) (see footnotes for information on baseline population risk and length of follow-up time over which absolute risk difference is calculated) | | | |
|------------------|-------------------------------------|--|------------------------------------|------------------------------------|-----------------------------------|
| | | Current HRT users | Treatment duration <5 years | Treatment duration 5–10 years | >5 years since stopping treatment |
| Women on any HRT | RCT estimate ¹ | 23 fewer (-10 to -33) ³ | 25 fewer (-9 to -37) ⁴ | No available data | No available data |
| | Observational estimate ² | 16 fewer (-15 to -18) ⁵ | 15 fewer (-11 to -17) ⁵ | 18 fewer (-15 to -20) ⁵ | 2 more (-19 to 27) ⁶ |

HRT, hormone replacement therapy; RCT, randomised controlled trial

For full source references, see Appendix M in the [full guideline](#).

Absolute risks calculated by using the baseline population risk in the control arm for each analysis, following GRADE methodology.

¹ For women aged 50–59 years at entry to the RCT.

² Observational estimate is based on cohort studies with several thousand women.

³ Baseline population risk = 69 per 1000 women (follow-up: 3.43 years).

⁴ Baseline population risk = 78 per 1000 women (follow-up: 3.71 years).

⁵ Baseline population risk = 15.4 per 1000 women (follow-up: 2.8 years).

⁶ Baseline population risk = 106 per 1000 women (follow-up: 5 years).