

Table 3. Effect modification of breast cancer risk related to use of HT and body-mass index at baseline among 483,241 Norwegian women 2006-2013

	Body-mass index (BMI) <sup>a</sup> <25 kg/m <sup>2</sup>			Body-mass index (BMI) <sup>a</sup> ≥25 kg/m <sup>2</sup>		
	No. of cases/no. of participants	Age-adjusted HR	95% CI	No. of cases/no. of participants	Age-adjusted HR	95% CI
<b>Any systemic HT</b>						
Never use	1,302/110,375	1		1,654/116,517	1.20	1.11-1.29
Current use	642/23,342	2.09	1.90-2.30	563/19,574	2.18	1.97-2.41
HT use (current vs never) within strata of baseline BMI		2.14	1.94-2.36		1.79	1.62-1.97
<b>Systemic combination HT (EPT)</b>						
Never use	1,302/110,375	1		1,654/116,517	1.20	1.11-1.29
Current use	540/17,333	2.37	2.14-2.63	453/13,535	2.57	2.31-2.87
HT use (current vs never) within strata of baseline BMI		2.43	2.19-2.70		2.11	1.90-2.35

Any systemic HT:

- Measure of effect modification on additive scale: RERI: -0.11 (95% CI -0.37-0.15)
- Measure of effect modification on multiplicative scale: Ratio of HRs: 0.87 (95% CI 0.76-1.00) and likelihood-ratio test: LR  $\chi^2=4.11$ , LR  $P = 0.04$

Systemic combination HT (EPT):

- Measure of effect modification on additive scale: RERI: 0.00 (95% CI -0.32-0.32)
- Measure of effect modification on multiplicative scale: Ratio of HRs: 0.90 (95% CI 0.78-1.04) and Likelihood-ratio test: LR  $\chi^2=1.86$ , LR  $P = 0.17$

BMI = body mass index, calculated as weight (kg)/height (m)<sup>2</sup>; CI = confidence interval; EPT = estrogen plus progestogen treatment; HR = hazard ratio; HT = menopausal hormone therapy

<sup>a</sup> We excluded women reporting body weight <30 kg and >299 kg or height <120 cm and >203 cm

Table 4. Effect modification of breast cancer risk related to use of HT and the body-mass patterns “remained at normal weight” versus “overweight as young” among 483,241 Norwegian women 2006-2013

	Overweight as young <sup>a</sup>			Remained at normal weight <sup>b</sup>		
	No. of cases/no. of participants	Age-adjusted HR	95% CI	No. of cases/no. of participants	Age-adjusted HR	95% CI
<b>Any systemic HT</b>						
Never use	287/23,647	1		844/65,820	1.05	0.92-1.20
Current use	85/3,790	1.68	1.32-2.14	414/13,845	2.25	1.93-2.62
HT use (current vs never) within strata of body-mass patterns		1.62	1.27-2.07		2.17	1.92-2.45
<b>Systemic combination HT (EPT)</b>						
Never use	287/23,647	1		844/65,820	1.05	0.92-1.20
Current use	70/2,623	2.02	1.55-2.63	350/10,349	2.56	2.18-2.99
HT use (current vs never) within strata of body-mass patterns		1.92	1.47-2.50		2.48	2.18-2.82

Any systemic HT:

- Measure of effect modification on additive scale: RERI: 0.52 (95% CI 0.09-0.95)

- Measure of effect modification on multiplicative scale: Ratio of HRs: 1.28 (95% CI 0.98-1.67) and likelihood-ratio test: LR  $\chi^2=3.27$ , LR  $P = 0.07$

Combination systemic HT (EPT – estrogen plus progestogen):

- Measure of effect modification on additive scale: RERI: 0.49 (95% CI -0.06-1.0)

- Measure of effect modification on multiplicative scale: Ratio of HRs 1.21 (95% CI 0.90-1.61) and likelihood-ratio test: LR  $\chi^2=1.66$ , LR  $P = 0.19$

Abbreviations: CI = confidence interval; EPT = estrogen plus progestogen treatment; HR = hazard ratio; HT = menopausal hormone therapy

<sup>a</sup> Participants reporting weighing above average at 7 and/or 15 years of age, regardless of baseline BMI <sup>b</sup> Participants reporting weighing below the average or average at 7 and 15 years of age and having BMI <25 kg/m<sup>2</sup> at baseline

Table 5. Effect modification of breast cancer risk related to use of HT and the body-mass patterns “gained weight” versus “overweight as young” among 483,241 Norwegian women 2006-2013

	Overweight as young <sup>a</sup>			Gained weight <sup>b</sup>		
	No. of cases/no. of participants	Age-adjusted HR	95% CI	No. of cases/no. of participants	Age-adjusted HR	95% CI
<b>Any systemic HT</b>						
Never use	287/23,647	1		956/59,474	1.30	1.14-1.48
Current use	85/3,790	1.61	1.26-2.05	329/10,289	2.28	1.94-2.67
HT use (current vs never) within strata of body-mass patterns		1.62	1.27-2.07		1.75	1.54-1.99
<b>Systemic combination HT (EPT)</b>						
Never use	287/23,647	1		956/59,474	1.30	1.14-1.48
Current use	70/2,623	1.93	1.48-2.51	263/7,097	2.67	2.25-3.16
HT use (current vs never) within strata of body-mass patterns		1.92	1.47-2.50		2.06	1.79-2.36

Any systemic HT:

- Measure of effect modification on additive scale: RERI: 0.37 (95% CI -0.07-0.80)
- Measure of effect modification on multiplicative scale: Ratio of HRs 1.09 (95% CI 0.83-1.43) and likelihood-ratio test: LR  $\chi^2=0.37$ , LR  $P = 0.54$

Combination systemic HT (EPT – estrogen plus progestogen):

- Measure of effect modification on additive scale: RERI: 0.44 (95% CI -0.12-1.0)
- Measure of effect modification on multiplicative scale: Ratio of HRs: 1.06 (95% CI 0.79-1.43) and likelihood-ratio test: LR  $\chi^2=0.18$ , LR  $P = 0.67$

Abbreviations: CI = confidence interval; EPT = estrogen plus progestogen treatment; HR = hazard ratio; HT = menopausal hormone therapy

<sup>a</sup> Participants reporting weighing above average at 7 and/or 15 years of age, regardless of baseline BMI <sup>b</sup> Participants reporting weighing below the average or average at 7 and 15 years of age and having BMI  $\geq 25$  kg/m<sup>2</sup> at baseline