

## ETS AND HEART DISEASE META-ANALYSES

Exposure	Estimates included	Number of estimates	Relative risk (95% confidence limits)*	
			Fixed-effects meta-analysis	Random-effects meta-analysis
Spouse ever smoked <sup>†</sup>	All	54	1.09 (1.07-1.12)	1.15 (1.09-1.21)
	(excluding Enstrom <sup>‡</sup> )	52	1.12 (1.09-1.14)	1.17 (1.11-1.24)
	Male	20	1.04 (1.00-1.09)	1.06 (1.00-1.13)
	(excluding Enstrom <sup>‡</sup> )	19	1.06 (1.01-1.11)	1.08 (1.02-1.14)
	Female	29	1.08 (1.04-1.11)	1.16 (1.08-1.24)
	(excluding Enstrom <sup>‡</sup> )	28	1.09 (1.06-1.13)	1.19 (1.10-1.28)
	Sexes combined	5	1.37 (1.28-1.47)	1.37 (1.28-1.47)
	North America	23	1.05 (1.02-1.08)	1.08 (1.02-1.13)
	(excluding Enstrom <sup>‡</sup> )	21	1.07 (1.04-1.10)	1.10 (1.04-1.16)
	Europe	11	1.29 (1.12-1.48)	1.29 (1.12-1.48)
	Asia	7	1.24 (1.09-1.41)	1.24 (1.08-1.42)
	Other	13	1.26 (1.19-1.33)	1.24 (1.07-1.44)
	1984-88	7	1.22 (1.04-1.44)	1.26 (1.02-1.55)
	1989-92	11	1.29 (1.17-1.43)	1.39 (1.18-1.64)
	1993-96	9	1.03 (0.99-1.07)	1.04 (0.99-1.08)
	1997-2000	7	1.32 (1.09-1.61)	1.37 (1.06-1.77)
	2001-04	9	1.07 (1.02-1.12)	1.10 (0.99-1.23)
	(excluding Enstrom <sup>‡</sup> )	7	1.18 (1.11-1.27)	1.18 (1.11-1.27)
	2005 onwards	11	1.23 (1.16-1.30)	1.15 (1.04-1.28)
	1-99 cases	6	1.60 (1.24-2.06)	1.61 (1.24-2.10)
	100-199	10	1.37 (1.11-1.70)	1.37 (1.11-1.70)
	200-999	21	1.22 (1.12-1.33)	1.24 (1.11-1.38)
	1000+	17	1.08 (1.05-1.10)	1.09 (1.02-1.15)
	Case control studies	27	1.28 (1.21-1.35)	1.25 (1.13-1.40)
	Prospective studies	22	1.04 (1.01-1.07)	1.07 (1.02-1.12)
	Cross-sectional studies	5	1.20 (1.12-1.28)	1.21 (1.10-1.33)
	Spouse the index	29	1.03 (1.00-1.06)	1.05 (1.00-1.10)
Not the index	25	1.23 (1.18-1.28)	1.23 (1.14-1.32)	
Spouse current smoker <sup>§</sup>	All	53	1.11 (1.08-1.14)	1.17 (1.11-1.24)
	(excluding Enstrom <sup>‡</sup> )	51	1.13 (1.10-1.16)	1.19 (1.13-1.26)
	Male	19	1.06 (1.01-1.11)	1.09 (1.01-1.17)
	(excluding Enstrom <sup>‡</sup> )	18	1.08 (1.02-1.13)	1.11 (1.03-1.20)
	Female	28	1.09 (1.05-1.12)	1.18 (1.10-1.27)
	(excluding Enstrom <sup>‡</sup> )	27	1.11 (1.07-1.14)	1.21 (1.12-1.31)
	Sexes combined	6	1.37 (1.27-1.47)	1.37 (1.27-1.47)
	North America	23	1.06 (1.03-1.09)	1.09 (1.03-1.15)
	(excluding Enstrom <sup>‡</sup> )	21	1.08 (1.05-1.11)	1.12 (1.05-1.19)
	Europe	10	1.33 (1.15-1.54)	1.33 (1.15-1.54)
	Asia	7	1.28 (1.12-1.46)	1.28 (1.12-1.46)
	Other	13	1.26 (1.19-1.33)	1.24 (1.07-1.44)
	1984-88	7	1.24 (1.05-1.47)	1.26 (1.04-1.51)
	1989-92	10	1.30 (1.17-1.44)	1.41 (1.18-1.68)
	1993-96	9	1.05 (1.01-1.08)	1.07 (1.00-1.14)
	1997-2000	7	1.32 (1.09-1.61)	1.37 (1.06-1.77)
	2001-04	9	1.08 (1.02-1.13)	1.12 (0.99-1.27)
	(excluding Enstrom <sup>‡</sup> )	7	1.19 (1.11-1.27)	1.21 (1.08-1.37)
	2005 onwards	11	1.23 (1.16-1.30)	1.15 (1.03-1.29)

**ETS AND HEART DISEASE META-ANALYSES (Continued)**

Exposure	Estimates included	Number of estimates	Relative risk (95% confidence limits)*		
			Fixed-effects meta-analysis	Random-effects meta-analysis	
Spouse a current smoker (continued) <sup>§</sup>	1-99 cases	6	1.78 (1.34-2.36)	1.78 (1.34-2.36)	
	100-199	9	1.39 (1.12-1.72)	1.39 (1.12-1.72)	
	200-999	21	1.24 (1.13-1.35)	1.26 (1.11-1.43)	
	1000+	17	1.09 (1.06-1.12)	1.10 (1.03-1.17)	
	Case control studies	26	1.28 (1.21-1.36)	1.26 (1.12-1.43)	
	Prospective studies	22	1.05 (1.02-1.08)	1.09 (1.04-1.15)	
	Cross-sectional studies	5	1.20 (1.12-1.28)	1.21 (1.10-1.33)	
	Spouse the index	28	1.04 (1.01-1.07)	1.09 (1.02-1.16)	
	Not the index	25	1.23 (1.18-1.28)	1.22 (1.13-1.31)	
	Workplace ETS exposure**	All	20	1.10 (1.00-1.21)	1.10 (1.00-1.21)
Male		8	1.06 (0.94-1.20)	1.06 (0.94-1.20)	
Female		10	1.08 (0.92-1.27)	1.08 (0.92-1.27)	
Sexes combined		2	1.85 (1.24-2.78)	1.85 (1.24-2.78)	
North America		8	1.06 (0.95-1.18)	1.06 (0.95-1.18)	
Europe		6	1.19 (0.95-1.50)	1.18 (0.86-1.61)	
Asia		2	1.37 (0.90-2.09)	1.37 (0.90-2.09)	
Other		4	1.24 (0.83-1.86)	1.24 (0.83-1.86)	
Total ETS exposure		All	23	1.21 (1.16-1.27)	1.23 (1.10-1.37)
ETS assessed by biomarker (cotinine or COHb%)		All	4	1.14 (0.98-1.33)	1.27 (0.91-1.77)

\* Relative risk estimates and 95% confidence limits used in these meta-analyses are adjusted for covariates if adjusted data are available, and otherwise are unadjusted. If the source publication provides more than one adjusted estimate, the data that are normally presented are those adjusted for most covariates.

† Index of exposure based on smoking by the spouse or, if not available, the nearest equivalent. Relative risk for spouse ever smoked versus never smoked where available, otherwise data for spouse a current smoker are used.

‡ The study by Enstrom and Kabat<sup>1</sup> has been widely criticised, though for reasons which bear little or no relationship to the data presented.<sup>2</sup> The effect of excluding this study from some meta-analysis results is shown for illustrative purposes.

§ Index of exposure based on smoking by the spouse or, if not available, the nearest equivalent. Relative risk for spouse a current smoker versus never or non smoker where available, otherwise data for spouse ever smoked are used.

\*\* Results are based on analyses limited to the working population, if available. Otherwise, the unexposed group includes those who do not work.

A document<sup>3</sup> and a full computer output<sup>4</sup> provide more information on the relative risks combined, significance tests of heterogeneity and other detail.

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## References

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2. Enstrom JE, Kabat GC. *The Lancet's* call to ban smoking in the UK [Letter]. *Lancet* 2004;**363**:398-9.
3. Lee PN, Forey BA, Hamling JS. *Epidemiological evidence on environmental tobacco smoke and heart disease*. Sutton, Surrey: P N Lee Statistics and Computing Ltd; 2006. [www.pnlee.co.uk/reflist.htm](http://www.pnlee.co.uk/reflist.htm) [Download LEE2006H]
4. Lee PN, Forey BA, Hamling JS. *Detailed meta-analysis on ETS and heart disease*. Sutton, Surrey: P N Lee Statistics and Computing Ltd; 2006. [www.pnlee.co.uk/reflist.htm](http://www.pnlee.co.uk/reflist.htm) [Download LEE2006F]