

## 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	45	1.07 (1.04-1.10)	1.15 (1.09-1.21)
	(excluding Enstrom <sup>‡</sup> )	43	1.09 (1.06-1.12)	1.18 (1.11-1.25)
	Male	17	1.03 (0.99-1.08)	1.06 (0.99-1.14)
	Female	24	1.08 (1.04-1.11)	1.19 (1.10-1.29)
	Sexes combined	4	1.36 (1.14-1.63)	1.36 (1.14-1.63)
	North America	20	1.05 (1.02-1.08)	1.08 (1.02-1.14)
	(excluding Enstrom <sup>‡</sup> )	18	1.07 (1.04-1.10)	1.11 (1.04-1.17)
	Europe	11	1.28 (1.12-1.47)	1.28 (1.12-1.47)
	Asia	6	1.30 (1.12-1.50)	1.30 (1.12-1.50)
	Other	8	1.38 (1.11-1.72)	1.48 (1.02-2.16)
	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 onwards	11	1.08 (1.03-1.13)	1.12 (1.02-1.24)
	(excluding Enstrom <sup>‡</sup> )	9	1.19 (1.12-1.27)	1.19 (1.12-1.27)
	1-99 cases	6	1.60 (1.24-2.06)	1.61 (1.24-2.10)
	100-199	10	1.37 (1.11-1.69)	1.37 (1.11-1.69)
	200-999	17	1.29 (1.17-1.42)	1.31 (1.15-1.49)
	1000+	12	1.04 (1.02-1.07)	1.06 (1.00-1.11)
	Spouse the index	27	1.03 (1.00-1.06)	1.05 (1.00-1.11)
	Not the index	18	1.22 (1.16-1.29)	1.26 (1.16-1.38)
	Spouse current smoker <sup>§</sup>	All	44	1.08 (1.05-1.11)
(excluding Enstrom <sup>‡</sup> )		42	1.10 (1.07-1.14)	1.20 (1.13-1.28)
Male		16	1.05 (1.00-1.11)	1.10 (1.00-1.20)
Female		23	1.09 (1.05-1.12)	1.22 (1.12-1.33)
Sexes combined		5	1.35 (1.13-1.61)	1.35 (1.13-1.61)
North America		20	1.06 (1.03-1.09)	1.10 (1.03-1.16)
(excluding Enstrom <sup>‡</sup> )		18	1.08 (1.05-1.12)	1.13 (1.06-1.20)
Europe		10	1.33 (1.15-1.54)	1.33 (1.15-1.54)
Asia		6	1.30 (1.12-1.50)	1.30 (1.12-1.50)
Other		8	1.38 (1.11-1.72)	1.48 (1.02-2.16)
1984-88		7	1.24 (1.05-1.47)	1.26 (1.04-1.52)
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 onwards		11	1.08 (1.03-1.14)	1.14 (1.02-1.28)
(excluding Enstrom <sup>‡</sup> )		9	1.20 (1.12-1.28)	1.22 (1.11-1.33)
1-99 cases		6	1.78 (1.34-2.36)	1.78 (1.34-2.36)
100-199		9	1.38 (1.11-1.71)	1.38 (1.11-1.71)
200-999		17	1.31 (1.18-1.44)	1.34 (1.17-1.54)
1000+		12	1.06 (1.03-1.09)	1.07 (1.01-1.14)
Spouse the index		26	1.04 (1.01-1.07)	1.09 (1.02-1.16)
Not the index		18	1.22 (1.16-1.29)	1.26 (1.16-1.38)

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


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Exposure	Estimates included	Number of estimates	Relative risk (95% confidence limits)*	
			Fixed-effects meta-analysis	Random-effects meta-analysis
Workplace ETS exposure**	All	17	1.11 (1.01-1.23)	1.13 (1.01-1.27)
	Male	7	1.07 (0.95-1.21)	1.07 (0.95-1.21)
	Female	8	1.09 (0.91-1.31)	1.09 (0.91-1.31)
	Sexes combined	2	1.85 (1.24-2.78)	1.85 (1.24-2.78)
	North America	6	1.07 (0.95-1.20)	1.07 (0.95-1.20)
	Europe	6	1.19 (0.95-1.50)	1.18 (0.86-1.61)
	Asia	1	1.85 (0.86-3.99)	1.85 (0.86-3.99)
	Other	4	1.24 (0.83-1.86)	1.24 (0.83-1.86)
Total ETS exposure	All	19	1.15 (1.08-1.21)	1.25 (1.10-1.41)
ETS assessed by cotinine	All	3	1.09 (0.93-1.28)	1.12 (0.83-1.50)

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\* 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 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 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

1. Enstrom JE, Kabat GC. Environmental tobacco smoke and tobacco related mortality in a prospective study of Californians, 1960-98. *BMJ* 2003;**326**:1057-61. Full version available at <http://bmj.com/cgi/content/full/326/7398/1057>
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 J. *Epidemiological evidence on environmental tobacco smoke and heart disease*. 2005. [www.pnlee.co.uk](http://www.pnlee.co.uk)
4. Lee PN, Forey BA, Hamling J. *Detailed meta-analysis on ETS and heart disease*. 2005. [www.pnlee.co.uk](http://www.pnlee.co.uk)