

## ETS AND LUNG CANCER META-ANALYSES

Exposure	Estimates included	Number of estimates	Relative risk (95% confidence limits)*		
			Fixed-effects meta analysis	Random-effects meta-analysis	
Husband smoked <sup>†</sup>	All	82	1.20 (1.14-1.26)	1.25 (1.16-1.36)	
	N America	26	1.10 (1.00-1.22)	1.11 (0.96-1.28)	
	Europe	16	1.21 (1.06-1.37)	1.23 (1.04-1.45)	
	Asia	38	1.27 (1.18-1.37)	1.36 (1.21-1.54)	
	- Japan	8	1.25 (1.05-1.48)	1.25 (1.05-1.48)	
	- Hong Kong	6	1.42 (1.17-1.74)	1.41 (1.10-1.81)	
	- China	17	1.10 (0.99-1.22)	1.27 (1.04-1.55)	
	- Other	7	1.73 (1.46-2.05)	1.73 (1.45-2.07)	
	Other	2	1.22 (0.78-1.89)	1.22 (0.78-1.89)	
	Published in 1981-1989	25	1.38 (1.23-1.55)	1.38 (1.23-1.55)	
	Published in 1990-1999	27	1.09 (1.01-1.17)	1.15 (1.02-1.30)	
	Published in 2000 onwards	30	1.27 (1.16-1.39)	1.26 (1.09-1.47)	
	Published in 1981-1986	12	1.30 (1.11-1.52)	1.30 (1.09-1.55)	
	Published in 1987-1989	13	1.50 (1.26-1.78)	1.50 (1.26-1.78)	
	Published in 1990-1994	11	0.99 (0.89-1.09)	1.04 (0.84-1.28)	
	Published in 1995-1998	11	1.23 (1.08-1.40)	1.25 (1.07-1.47)	
	Published in 1999-2002	13	1.25 (1.10-1.43)	1.25 (1.10-1.43)	
	Published in 2003-2006	11	1.13 (0.97-1.32)	1.14 (0.94-1.38)	
	Published in 2007 onwards	11	1.42 (1.21-1.66)	1.41 (0.98-2.03)	
	1-49 cases	17	1.33 (1.04-1.69)	1.33 (1.04-1.69)	
	50-99	26	1.38 (1.22-1.57)	1.38 (1.18-1.62)	
	100-199	20	1.14 (1.04-1.25)	1.13 (0.99-1.30)	
	200-399	11	1.42 (1.26-1.60)	1.42 (1.22-1.64)	
	400+	5	1.00 (0.90-1.10)	1.01 (0.82-1.26)	
	Case-control	68	1.20 (1.13-1.27)	1.26 (1.15-1.39)	
	Prospective	14	1.21 (1.06-1.38)	1.21 (1.06-1.38)	
	Not age adjusted	15	1.53 (1.32-1.77)	1.56 (1.30-1.87)	
	Age adjusted	67	1.16 (1.10-1.23)	1.20 (1.10-1.31)	
	Dose-response results:				
	not reported	32	1.10 (1.01-1.21)	1.21 (1.05-1.40)	
	reported	49	1.25 (1.17-1.33)	1.28 (1.16-1.41)	
	Spouse the index	50	1.16 (1.10-1.24)	1.22 (1.12-1.34)	
	Spouse not the index	32	1.31 (1.18-1.45)	1.29 (1.10-1.53)	
Squamous cell carcinoma	20	1.47 (1.27-1.70)	1.54 (1.19-1.98)		
N America	5	1.45 (1.18-1.78)	1.58 (0.85-2.96)		
Europe	7	1.68 (1.25-2.26)	1.69 (1.22-2.34)		
Asia	8	1.32 (0.97-1.78)	1.32 (0.97-1.78)		
Adenocarcinoma	26	1.27 (1.16-1.40)	1.39 (1.18-1.63)		
N America	7	1.10 (0.97-1.24)	1.10 (0.97-1.24)		
Europe	7	1.13 (0.91-1.40)	1.09 (0.79-1.49)		
Asia	12	1.76 (1.49-2.07)	1.86 (1.43-2.41)		
Wife smoked <sup>†</sup>	All	37	1.20 (1.05-1.36)	1.20 (1.02-1.41)	
	N America	16	1.11 (0.90-1.37)	1.14 (0.85-1.55)	
	Europe	9	1.17 (0.90-1.50)	1.17 (0.90-1.50)	
	Asia	10	1.33 (1.05-1.69)	1.35 (0.96-1.90)	
	Other	2	1.25 (0.78-1.99)	1.25 (0.78-1.99)	

**ETS AND LUNG CANCER META-ANALYSES (Continued)**

Exposure	Estimates included	Number of estimates	Relative risk (95% confidence limits)*		
			Fixed-effects meta analysis	Random-effects meta-analysis	
Husband or wife smoked <sup>†,‡</sup>	All	105	1.20 (1.14-1.26)	1.25 (1.15-1.34)	
	N America	35	1.10 (1.01-1.22)	1.13 (0.98-1.31)	
	Europe	20	1.20 (1.07-1.34)	1.21 (1.05-1.40)	
	Asia	46	1.28 (1.19-1.37)	1.34 (1.20-1.51)	
	- Japan	10	1.29 (1.09-1.52)	1.29 (1.09-1.52)	
	- Hong Kong	8	1.32 (1.12-1.57)	1.31 (1.06-1.63)	
	- China	19	1.09 (0.98-1.21)	1.23 (1.01-1.49)	
	- Other	9	1.77 (1.51-2.08)	1.77 (1.51-2.08)	
	Other	4	1.23 (0.90-1.70)	1.23 (0.90-1.70)	
	Published in 1981-1989	33	1.40 (1.25-1.57)	1.40 (1.25-1.57)	
	Published in 1990-1999	33	1.09 (1.01-1.17)	1.15 (1.02-1.28)	
	Published in 2000 onwards	39	1.25 (1.15-1.35)	1.22 (1.06-1.40)	
	Published in 1981-1986	18	1.32 (1.14-1.53)	1.32 (1.13-1.54)	
	Published in 1987-1989	15	1.53 (1.28-1.81)	1.53 (1.28-1.81)	
	Published in 1990-1994	12	0.99 (0.89-1.10)	1.05 (0.85-1.29)	
	Published in 1995-1998	16	1.21 (1.08-1.37)	1.22 (1.07-1.39)	
	Published in 1999-2002	14	1.22 (1.09-1.38)	1.22 (1.09-1.38)	
	Published in 2003-2006	15	1.13 (0.99-1.30)	1.12 (0.94-1.34)	
	Published in 2007 onwards	15	1.36 (1.20-1.55)	1.36 (0.99-1.86)	
	1-49 cases	19	1.63 (1.27-2.08)	1.63 (1.27-2.08)	
	50-99	31	1.30 (1.14-1.47)	1.27 (1.08-1.50)	
	100-199	25	1.13 (1.03-1.24)	1.14 (0.98-1.32)	
	200-399	22	1.29 (1.17-1.43)	1.29 (1.16-1.44)	
	400+	8	1.11 (1.02-1.21)	1.17 (0.93-1.49)	
	Case-control	86	1.20 (1.14-1.27)	1.25 (1.15-1.37)	
	Prospective	19	1.20 (1.06-1.35)	1.20 (1.06-1.35)	
	Not age adjusted	18	1.52 (1.32-1.75)	1.56 (1.28-1.89)	
	Age adjusted	87	1.17 (1.11-1.23)	1.20 (1.11-1.30)	
	Dose-response results:				
	not reported	40	1.12 (1.04-1.22)	1.20 (1.06-1.37)	
	results reported	64	1.25 (1.17-1.32)	1.27 (1.15-1.39)	
	Spouse the index	64	1.17 (1.10-1.24)	1.23 (1.13-1.34)	
	Spouse not the index	41	1.27 (1.17-1.38)	1.24 (1.07-1.44)	
Squamous cell carcinoma	22	1.39 (1.21-1.59)	1.42 (1.10-1.83)		
N America	5	1.40 (1.16-1.70)	1.58 (0.85-2.92)		
Europe	8	1.59 (1.21-2.09)	1.61 (1.17-2.22)		
Asia	9	1.19 (0.90-1.56)	1.16 (0.81-1.67)		
Adenocarcinoma	28	1.28 (1.18-1.39)	1.40 (1.19-1.64)		
N America	7	1.08 (0.96-1.22)	1.08 (0.96-1.22)		
Europe	8	1.12 (0.92-1.37)	1.11 (0.82-1.49)		
Asia	13	1.75 (1.51-2.03)	1.81 (1.41-2.31)		
Workplace ETS exposure <sup>§</sup>	All	43	1.24 (1.15-1.33)	1.24 (1.15-1.33)	
	N America	17	1.21 (1.09-1.35)	1.21 (1.06-1.37)	
	Europe	11	1.18 (1.01-1.39)	1.18 (1.01-1.39)	
	Asia	15	1.31 (1.15-1.48)	1.31 (1.15-1.48)	

**ETS AND LUNG CANCER META-ANALYSES (Continued /2)**

Exposure	Estimates included	Number of estimates	Relative risk (95% confidence limits)*	
			Fixed-effects meta analysis	Random-effects meta-analysis
Childhood ETS exposure**	From any cohabitant	38	1.08 (1.00-1.16)	1.16 (1.02-1.32)
	N America	12	1.02 (0.90-1.15)	1.09 (0.91-1.32)
	Europe	11	0.94 (0.81-1.08)	1.02 (0.81-1.29)
	Asia	15	1.26 (1.11-1.42)	1.31 (1.02-1.67)
	From the mother specifically	9	0.96 (0.77-1.20)	0.98 (0.77-1.25)
	From the father specifically	11	0.90 (0.80-1.00)	1.00 (0.78-1.29)
	From parents specifically	8	0.78 (0.64-0.94)	0.78 (0.64-0.94)
Household ETS exposure††	Any	53	1.11 (1.04-1.19)	1.11 (1.04-1.19)
	From sources other than the spouse	12	1.10 (0.94-1.29)	1.25 (0.95-1.64)
ETS exposure in travel‡‡	All	8	1.24 (1.01-1.53)	1.34 (0.94-1.93)
Social ETS exposure‡‡	All	15	1.03 (0.92-1.16)	1.01 (0.82-1.24)
Total ETS exposure	All	37	1.36 (1.25-1.48)	1.36 (1.18-1.57)
	N America	11	1.19 (1.04-1.37)	1.28 (0.96-1.69)
	Europe	11	1.08 (0.89-1.30)	1.07 (0.86-1.32)
	Asia	15	1.72 (1.51-1.95)	1.67 (1.41-1.97)

\* 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.

‡ Based on 64 estimates for women, 22 for men and 11 for sexes combined.

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

\*\* Where estimates are available for more than one period of childhood, those for the earliest period have been used.

†† Where estimates are only available for specific household members, those for the mother have been used.

‡‡ Where estimates are available for more than one index of social or travel ETS exposure, those for the index with the highest frequency of exposure have been used.

A document<sup>1</sup> and a full computer output<sup>2</sup> provide more information on the individual relative risks, significance tests of heterogeneity and other detail.

References

1. Lee PN, Forey BA, Hamling JS. *Epidemiological evidence on environmental tobacco smoke and lung cancer*. Sutton, Surrey: P N Lee Statistics and Computing Ltd; 2011. [www.pnlee.co.uk/reflist.htm](http://www.pnlee.co.uk/reflist.htm) [Download LEE2011S]
2. Lee PN, Forey BA, Hamling JS. *Detailed meta-analysis on ETS and lung cancer*. Sutton, Surrey: P N Lee Statistics and Computing Ltd; 2011. [www.pnlee.co.uk/reflist.htm](http://www.pnlee.co.uk/reflist.htm) [Download LEE2011TB]

This work was supported by the tobacco industry. The accuracy of the material presented is the responsibility of the authors alone.