

**Table 2.18. Case-control studies of second-hand tobacco smoke and cancer of the pancreas**

Reference, study location and period	Characteristics of cases	Characteristics of controls	Exposure assessment	Exposure categories	(# Case/# Control) Relative risk (95% CI)*	Adjustment for potential confounders	Comments
Hassan <i>et al.</i> (2007) USA	808 cases with adenocarcinoma of the pancreas; Hospital based; English communication;	808 healthy controls; Recruited from visitors of hospital; No history of cancer; English communication; Matched on age ( $\pm$ 5yrs), race/ethnicity and sex.	Personal interview	<i>Active smoking - exposure to second-hand tobacco smoke</i> None - None Yes - None None - Yes Yes - Yes	(75/111) 1.0 ref (39/52) 0.9 (0.5–1.5) (219/301) 1.0 (0.7–1.5) (402/341) 1.6 (1.1–2.2)	Age, sex, race/ethnicity, cigarette smoking, history of diabetes, alcohol consumption, educational level, state of residency and marital status	
				<i>Exposure to second-hand tobacco smoke</i> Never Ever	<i>Total Population</i> (114/163) 1.0 (ref) (621/642) 1.3 (0.9–1.7)	<i>Cigarette Smokers</i> (39/52) 1.0 (ref) (402/341) 1.7 (1.0–2.6)	<i>Noncigarette smokers</i> (75/111) 1.0 (ref) (219/301) 1.1 (0.8–1.6)
				<i>Childhood exposure</i> Occasionally Regularly	(74/96) 1.2 (0.8–1.9) (394/401) 1.3 (0.9–1.7)	(46/42) 1.8 (0.9–3.4) (262/218) 1.7 (1.0–2.8)	(28/54) 0.9 (0.5–1.6) (132/183) 1.1 (0.7–1.6)
				<i>Adulthood at home</i> Occasionally Regularly	(75/67) 1.6 (1.02–2.5) (311/267) 1.3 (0.96–1.9)	(43/33) 2.2 (1.1–4.3) (231/156) 1.9 (1.2–3.2)	(32/34) 1.4 (0.7–2.5) (80/111) 1.0 (0.7–1.6)
				<i>Adulthood at work</i> Occasionally Regularly	(103/149) 0.9 (0.7–1.4) (235/213) 1.4 (1–1.9)	(63/72) 1.3 (0.7–2.3) (187/153) 1.7 (1.0–2.8)	(40/77) 0.8 (0.5–1.3) (48/60) 1.2 (0.7–1.9)
				<i>Exclusive exposure</i> Childhood & Adulthood	(373/364) 1.3 (0.9–1.8)	(268/211) 1.8 (1.1–2.9)	(105/153) 1.0 (0.6–1.5)
				<i>Lifetime yrs</i> 1–10 11–20 > 20	(32/55) 0.9 (0.5–1.5) (144/175) 1.3 (0.9–1.8) (417/378) 1.4 (1.0–1.9)	(13/16) 1.3 (0.4–3.2) (78/73) 1.6 (0.9–2.8) (293/234) 1.7 (1.1–2.7)	(19/39) 0.8 (0.4–1.6) (66/102) 1.1 (0.7–1.7) (124/144) 1.2 (0.8–1.8)

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Villeneuve <i>et al.</i> (2004) Canada Relationship between pancreatic cancer and childhood and adult exposure to ETS using a case-control study design.	583 cases identified by The National Enhanced Cancer Surveillance System; 30 years of age and older, who completed questionnaires between 1994 and 1997.	4,813 controls. The NECSS used frequency matching to select population-based controls in order to obtain a similar age and sex distribution to that of all cancer cases.	Mailed questionnaires, with telephone follow-up.	<i>Residential years</i>	(16/191) 1.0 <sup>#</sup> (ref.)	<i>Age and Sex Adjusted</i> 1.0 (ref.)	Restricted to participants for whom exposure to environmental tobacco smoke could be ascertained for at least 75% of the etiologic period.  §: Odds ratios were adjusted for: age, body mass index, income adequacy and province of residence.  #: Odds ratios were adjusted for: age, sex, body mass index, income adequacy and province of residence.	
				No Residential/- occupational exposure	(17/166) 1.43 (0.61-3.36)			1.25 (0.60-2.59)
				Occupational only	(18/261) 0.97 (0.42-2.26)			1.13 (0.56-2.29)
				1-20 years	(19/251) 0.90 (0.39-2.11)			1.06 (0.53-2.15)
				21-34 years	(35/276) 1.43 (0.66-3.11)			1.39 (0.74-2.61)
				≥35 years				
				<i>Occupational years</i>	(16/191) 1.0 <sup>§</sup> (ref.)			1.0 (ref.)
				Never exposed	(26/327) 0.97 (0.43-2.18)			1.01 (0.52-1.94)
				Residential only	(19/209) 1.55 (0.68-3.56)			1.51 (0.74-3.08)
				1-9 years	(19/199) 1.16 (0.49-2.74)			1.45 (0.71-2.95)
				10-21 years	(25/219) 1.20 (0.54-2.67)			1.22 (0.62-2.38)
				≥22 years				
<i>Resid. &amp; Occup. Combined</i>	(16/191) 1.0 <sup>§</sup> (ref.)	1.0 (ref.)						
Never exposed	(28/311) 1.33 (0.60-2.93)	1.38 (0.72-2.66)						
1-35 years	(25/325) 1.09 (0.49-2.41)	1.08 (0.56-2.10)						
36-56 years	(36/318) 1.15 (0.54-2.47)	1.24 (0.67-2.31)						
≥57 years								