Table 2.3 Cohort studies of workers exposed to mineral oils and bladder cancer

Reference, location, name of study	Cohort description	Exposure assessment	Exposure categories	No. of cases/ deaths	Relative risk (95% CI)*	Adjustment for potential confounders	Comments
Decoufle (1978) USA	2485 metal machining plant workers employed 1938-1967 in 1+ years blue collar job	Work in jobs with cutting oil mist exposure	5+ years in oil mist exposure jobs	6	[1.2]	Age, calendar year	Observed vs. expected presented
Järvholm et al. (1981) Sweden	788 men in the metal industry followed for cancer incidence by linkage to the Swedish cancer registry	Job classification 242 men c1assified as turners and 551 as grinders	5+ years exposure to oil mist	3	-	-	Expected numbers not provided.
Järvholm et al. (1985) Sweden	682 bearing ring industry workers followed 1977-1983	Lathe operators	5+ years exposure to oil	6	[0.3] (0.4-2.2)		Observed vs. expected presented
Kazerouni et al. (2000) USA	23698 men employed at automotive plant between 1938 and 1967, followed to 1980	Work in jobs with cutting oil mist exposure	Heavy exposure to oil mist	17	1.0 (0.6-1.6)	Age, race, calendar year	

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Zhao et al. (2005) USA	5049 male aerospace workers hired before 1980 in the aerospace division who worked 2+ years and followed for cancer incidence	Detailed industrial hygiene review to construct job-exposure matrix	Low Medium High	32 13 5	1.0 1.8 (0.9-3.5) 1.4 (0.5-3.9)		Similar findings (with smaller numbers) for cohort of 6107 workers followed for cancer mortality
Friesen et al. (2009) USA	21999 male automotive workers employed 3+ years and alive on 1 January 1941; mortality follow-up 1985-2004	Air measurements, modeling of plant-department-job specific levels by experts	Straight metalworking fluids >8.98 (mg/m^3 years), 20-year lag	17	2.1 (1.2-3.6)	Race, hire date, calendar year, other metalworking fluid exposures	P(trend) = 0.02
			Soluble metalworking fluids >17.1 (mg/m^3 years), 20-year lag	24	1.0 (0.6-1.9)		P(trend) = 0.65