

Table 2.3. Cohort studies of chromium VI and stomach cancer

Author date/ Place	Characteristics of Cohort	Exposure Assessment	Comments	Exposure Category	n ¹	Relative Risk	95% CI	Type of estimate and reference population
<i>Chromate Production</i>								
Satoh, et al. (1981) Tokyo	896 chromium compound production workers employed 1918–75, followed 1918–78			All workers	11	0.9	[0.45–1.61]	SMR ref Japan
Korallus, et al. (1982) Germany	1140 workers in 2 chromate production plants employed > 1 year 1934–79			All workers	12	0.94	[0.49–1.64]	SMR ref North Rhine Westphalia
Davies, et al. (1991) United Kingdom	2298 workers in 3 chromate production factories; exposed before 1976, followed-up 1950– 88			All workers	19	0.73	[0.44–1.14]	SMR ref England and Scotland
Korallus, et al. (1993) Germany	2 chromate-producing factories; 1 417 workers with at least 1 year of exposure. Exposure and follow-up periods 1948–88	Not used here ²	Includes both pre- and post-process change workers.	All Plant A	4	0.63	0.17–1.60	SMR ref North Rhine Westphalia
				All Plant B	12	1.92	1.04–3.24	SMR ref North Rhine Westphalia
Rosenman and Stanbury (1996) New Jersey	3408 workers in 4 chromate production facilities, employed during 1937–71			White males	30	2.05	1.38–2.92	PMR ref US
				Black males	4	0.68	0.18–1.74	PMR ref US
<i>Chromium electro-plating</i>								
Silverstein, et al. (1981) US	238 workers in automotive diecasting and Ni-Cr- plating plant employed before 1978, followed 1974–78			Men	4	2.5	[0.68–6.40]	PMR ref US

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Itoh, et al. (1996) Japan	1193 platers from 415 small-scale chrome plating plants employed 1970–76, followed 1976– 92			All workers	9	0.79	0.36–1.50	SMR ref Japan
Sorahan and Harrington (2000) Yorkshire, United Kingdom	920 male chrome platers from 54 plants in Yorkshire. Employed before 1972, followed 1972–97	Not used here ²		All workers	12	1.68	0.87–2.94	SMR ref England and Wales
<i>Cohorts in other industries</i>								
Axelsson, et al. (1980) Sweden	1876 workers in ferro- chromium plant employed > 1 year 1930–75, followed 1951–75			All workers	6	0.57	[0.21–1.24]	SIR ref county
Langård, et al. (1990) Norway	1235 ferro-chromium and ferro-silicon male workers employed 1928–65, followed 1953–85			All ferro- chromium workers	7	1.4	[0.56–2.88]	SMR ref Norway
Rafnsson, et al. (1997) Iceland	1172 licensed stone masons, born after 1 880 and alive in 1955; followed 1955–93		It was shown that Icelandic cement dust contains Cr VI and that masons have measurable Cr VI in urine	All workers	21	1.08	0.67–1.65	SIR ref Iceland

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Boice et al. (1999) California	3634 workers who were potentially exposed to chromates at an aircraft manufacturing plant employed > 1 year since 1960, followed 1960–96	Not used here ²		All workers	11	1.03	0.51–1.84	SMR ref California for white workers and U.S. general population for non-white workers.

1 n: Number of exposed cases

2 Not used here: This signifies that the study did involve an exposure assessment protocol of some sort, but that the result presented in this table does not depend on that exposure assessment