

**Table 2.5. Comparison chart of occupational exposure to arsenic and cancer incidence**

Cause	Montana, USA, copper smelter, Lubin <i>et al.</i> (2000)		Tacoma, WA, USA, copper smelter, Enterline <i>et al.</i> (1995)		Japan, copper smelter, Tokudome and Kuratsune (1976)		Sweden, copper smelter, Wall (1980)		France, gold mines, Simonato <i>et al.</i> (1994)	
	No. of cases	SMR	No. of cases	SMR	No. of cases	SMR	No. of cases	SMR	No. of cases	SMR
All causes	5,011	1.1	1,234	<b>1.2</b>	157	1.0	953	<b>1.2</b>	201	<b>0.8</b>
All cancers	1,010	1.1	395	<b>1.4</b>	55	<b>1.9</b>	245	<b>1.4</b>	70	0.9
Stomach cancer	63	1.2	18	1.1	10	0.7	88	<b>1.2</b>	4	0.8
Liver cancer	16	0.8	1	0.2	1	1.4	48	<b>1.7</b>		
Pancreatic cancer	48	1.0	14	0.9	2	2.7				
Respiratory cancer	446	<b>1.6</b>	188	<b>2.1</b>	29	<b>9.1</b>	79	<b>2.8</b>		
Lung cancer	428	<b>1.6</b>	182	<b>2.1</b>	29	<b>11.9</b>	76	<b>2.9</b>	35	<b>2.1</b>
Prostate cancer	92	1.2	28	1.1					1	0.2
Bladder cancer	37	1.3	8	0.8					2	0.8
Kidney cancer	12	0.6	11	1.6						

  

Cause	Yunnan, China, tin mines, Xuan <i>et al.</i> (1993)*		Denmark, stokers, Hansen (1992)		Michigan, USA, insecticide manufacturer, Sobel <i>et al.</i> (1988)		Wenatchee, WA, USA, orchard pesticide, Tollestrup <i>et al.</i> (1995)		Pesticide manufacturer, Mabuchi <i>et al.</i> (1980)	
	No. of cases	SMR	No. of cases	SMR	No. of cases	SMR	No. of cases	SMR	No. of cases	SMR
All causes	2,591	1.1	366	0.9	214	0.9	336	<b>1.4</b>	197	1.0
All cancers	1,178	<b>2.4</b>	136	1.2	64	<b>1.4</b>	--	1.2	47	1.2
Stomach cancer	32	1.1							3	1.7
Liver cancer	45	1.8								
Pancreatic cancer							--	<b>1.4</b>		
Respiratory cancer			59	<b>1.4</b>	35	<b>2.3</b>	--	0.7		
Lung cancer	983	<b>3.1</b>					--	0.6	23	1.7
Prostate cancer					2	0.7			1	0.7
Bladder cancer	11	0.2			1	0.7				
Kidney cancer										

**Table 2.5. Comparison chart of occupational exposure to arsenic and cancer incidence**

Cause	Colorado, USA, Cadmium recovery plant, Thun <i>et al.</i> (1985)		UK, zinc-lead-cadmium smelter, Ades and Kazantzis (1988)		Ontario, Canada, uranium mines, Kusiak <i>et al.</i> (1993)		Russia, inorganic acids and fertilizer plant, male production workers only, Bulbulyan <i>et al.</i> (1996)		North Humberside, UK, tin smelter, Binks <i>et al.</i> (2005)	
	No. of cases	SMR	No. of cases	SMR	No. of cases	SMR	No. of cases	SMR	No. of cases	SMR
All causes	179	1.0					223	1.0	380	0.9
All cancers	41	1.1					59	1.1	123	1.0
Stomach cancer							19	1.2	9	1.1
Liver cancer									1	0.6
Pancreatic cancer									2	0.4
Respiratory cancer	20	<b>1.7</b>								
Lung cancer			182	<b>1.2</b>	152	<b>2.3</b>	19	1.2	62	<b>1.5</b>
Prostate cancer									11	1.3
Bladder cancer									2	0.4
Kidney cancer									2	0.8

Table modified from Lubin *et al.* (2000), with deletion of study by Chen *et al.* (1990) and addition of studies by Thun *et al.* (1985), Ades and Kazantzis (1988), Kusiak *et al.* (1993), Bulbulyan *et al.* (1996), and Binks *et al.* (2005).

Boldface indicates statistically significant standardized mortality ratios (SMR).

\*Using internal analysis, relative risks for high relative to low exposure to airborne arsenic, adjusted for radon progeny exposure.