

Case-Control Study of Arsenic in Drinking Water and Lung Cancer in California and Nevada

Table 1. Smoking and drinking water characteristics for 30 subjects with ≥ 85 $\mu\text{g/L}$ arsenic in drinking water at least 40 years before enrollment, western Nevada and central California, 2002–2005.

| Lung cancer | Smoked | Packs/ week* | CA | Public water ≥ 85 $\mu\text{g/L}$ | Arsenic in drinking water | | | | | |
|-------------|--------|--------------|----|--|---|--------------------|--------------------------|--|--|---|
| | | | | | Highest 5-year mean ($\mu\text{g/L}$) | | | Cumulative | | |
| | | | | | ≥ 40 years before | > 5 years before | $< 40^{**}$ years before | ($\mu\text{g/L}$ -years) > 5 years before | Years since ≥ 85 $\mu\text{g/L}^{**}$ | Years since > 10 $\mu\text{g/L}^{**}$ |
| 1 | 1 | 21 | 1 | 1 | 110 | 110 | 106 | 1,752 | 29 | 0 |
| 1 | 1 | 21 | 1 | 1 | 110 | 110 | 106 | 1,592 | 29 | 0 |
| 1 | 1 | 20 | 1 | 1 | 110 | 110 | 83 | 1,337 | 27 | 0 |
| 1 | 1 | 18 | 1 | 1 | 110 | 110 | 110 | 1,572 | 27 | 0 |
| 1 | 1 | 14 | 1 | 1 | 110 | 110 | 106 | 1,449 | 29 | 0 |
| 1 | 1 | 11 | 1 | 1 | 99 | 110 | 110 | 563 | 34 | 9 |
| 1 | 1 | 7 | 1 | 1 | 110 | 110 | 3 | 896 | 44 | 42 |
| 1 | 1 | 7 | 1 | 1 | 110 | 110 | 88 | 1,287 | 35 | 14 |
| 1 | 1 | 7 | 1 | 1 | 110 | 110 | 110 | 1,947 | 28 | 2 |
| 1 | 1 | 4 | 1 | 1 | 110 | 110 | 8 | 1,027 | 58 | 58 |
| 1 | 1 | 2 | 1 | 1 | 110 | 110 | 110 | 988 | 29 | 0 |
| 1 | 1 | 7 | 0 | 0 | 1,460 | 1,460 | 1,460 | 27,314 | 0 | 0 |
| 0 | 1 | 14 | 1 | 1 | 110 | 110 | 3 | 470 | 53 | 52 |
| 0 | 1 | 11 | 1 | 1 | 110 | 110 | 102 | 1,135 | 30 | 0 |
| 0 | 1 | 7 | 1 | 1 | 110 | 110 | 102 | 1,734 | 30 | 0 |
| 0 | 1 | 4 | 1 | 1 | 110 | 110 | 102 | 1,284 | 34 | 0 |
| 0 | 1 | 3 | 1 | 1 | 110 | 110 | 110 | 1,596 | 28 | 0 |
| 0 | 1 | 14 | 0 | 1 | 90 | 90 | 4 | 349 | 65 | 65 |
| 0 | 1 | 7 | 0 | 0 | 150 | 200 | 20 | 490 | 40 | 0 |
| 0 | 0 | 0 | 1 | 1 | 88 | 110 | 102 | 971 | 30 | 0 |
| 0 | 0 | 0 | 1 | 1 | 110 | 110 | 102 | 1,518 | 30 | 10 |

Table 1. Cont.

| Lung cancer | Smoked | Packs/ week* | CA | Public water \geq 85 $\mu\text{g/L}$ | Arsenic in drinking water | | | | | |
|-------------------------------|--------|--------------|------|--|---|--------------------|--------------------------|--|--|---|
| | | | | | Highest 5-year mean ($\mu\text{g/L}$) | | | Cumulative | | |
| | | | | | ≥ 40 years before | > 5 years before | $< 40^{**}$ years before | ($\mu\text{g/L}$ -years) > 5 years before | Years since \geq 85 $\mu\text{g/L}^{**}$ | Years since $>$ 10 $\mu\text{g/L}^{**}$ |
| 0 | 0 | 0 | 1 | 1 | 110 | 110 | 30 | 332 | 54 | 0 |
| 0 | 0 | 0 | 1 | 1 | 110 | 110 | 39 | 875 | 78 | 0 |
| 0 | 0 | 0 | 1 | 1 | 110 | 110 | 36 | 460 | 41 | 0 |
| 0 | 0 | 0 | 1 | 1 | 110 | 110 | 3 | 482 | 42 | 42 |
| 0 | 0 | 0 | 1 | 1 | 110 | 110 | 66 | 1,206 | 37 | 14 |
| 0 | 0 | 0 | 1 | 1 | 110 | 110 | 110 | 1,229 | 27 | 10 |
| 0 | 0 | 0 | 0 | 1 | 90 | 90 | 4 | 508 | 54 | 54 |
| 0 | 0 | 0 | 0 | 1 | 90 | 96 | 96 | 748 | 10 | 0 |
| 0 | 0 | 0 | 0 | 0 | 690 | 690 | 25 | 3,719 | 64 | 0 |
| <i>Percent or Average</i> | | | | | | | | | | |
| Cases | 100% | 11.5 | 92% | 92% | 222 | 223 | 200 | 3,477 | 31 | 10 |
| Controls | 39% | 3.3 | 72% | 89% | 140 | 144 | 59 | 1,061 | 42 | 14 |
| <i>p</i> -Value (2-tailed) | 0.0001 | 0.002 | 0.17 | 0.81 | 0.50 | 0.52 | 0.25 | 0.29 | 0.06 | 0.67 |

CA California, 1 yes, 0 no. *Average packs of 20 cigarettes (or equivalent for cigars and pipes) usually smoked during period of regular smoking, if ever smoked > 6 months. ** Exposures lasting < 5 years before enrollment were not counted.