Environ Health Perspect
DOI: 10.1289/EHP89

Supplemental Material

Bladder Cancer and Water Disinfection Byproduct Exposures through Multiple Routes: A Population-Based Case–Control Study (New England, USA)

Laura E. Beane Freeman, Kenneth P. Cantor, Dalsu Baris, John R. Nuckols, Alison Johnson, Joanne S. Colt, Molly Schwenn, Mary H. Ward, Jay H. Lubin, Richard Waddell, G. Monawar Hosain, Chris Paulu, Richard McCoy, Lee E. Moore, An-Tsun Huang, Nat Rothman, Margaret R. Karagas, and Debra T. Silverman

Table of Contents

Table S1. Association between cumulative intake of total trihalomethanes and bladder cancer, New England Bladder Cancer Study, 2001-2004

	Cases	Controls	OR	95% CI
		10 year lag		
Cumulative Intake (mg)[a]				
0-115.81	221	296	1.00	
>115.81-333.98	229	296	1.03	0.79-1.34
>333.98-679.24	258	296	1.10	0.84-1.42
>679.24-1217.53	142	178	0.94	0.69-1.27
>1217.53-1594.93	53	59	1.23	0.79-1.91
>1594.93	71	59	1.48	0.98-2.25
			p-trend=0.11	
		20 year lag		
Cumulative Intake (mg)[a]				
0-87.05	224	294	1.00	
>87.05-248.52	206	294	0.88	0.67-1.15
>248.52-525.47	267	294	1.12	0.86-1.45
>525.4-945.36	159	177	1.07	0.79-1.45
>945.36-1244.31	38	59	0.88	0.55-1.41
>1244.31	77	58	1.60	1.05-2.42
			p-trend=0.04	
		30 year lag		
Cumulative Intake (mg)[a]				
0-53.41	205	282	1.00	
>53.41-173.21	235	281	1.07	0.81-1.40
>173.21-379.84	247	281	1.14	0.86-1.50
>379.84-696.39	137	169	1.05	0.75-1.45
>696.39-888.95	49	56	1.12	0.70-1.78
>888.95	66	56	1.46	0.94-2.27
			p-trend=0.18	
		40 year lag		
Cumulative Intake (mg)[a]				
0-27.83	186	243	1.00	
>27.83-108.10	209	242	1.15	0.86-1.54
>108.10-252.19	196	243	1.09	0.81-1.47
>252.19-465.27	127	145	1.21	0.86-1.72
>465.27-607.99	48	49	1.25	0.76-2.04
>607.99	49	48	1.28	0.79-2.09
			p-trend=0.27	

50 year lag				
Cumulative Intake (mg)[a]				
0-9.42	124	175	1.00	
>9.42-51.83	134	174	1.02	0.72-1.45
>51.83-135.60	137	174	1.06	0.75-1.51
>135.60-255.97	98	105	1.32	0.89-1.97
>255.97-332.54	33	35	1.37	0.77-2.43
>332.54	39	34	1.33	0.76-2.35
			p-trend=0.11	

[a]Adjusted for age, gender, state, smoking status, employment in high risk occupation, race, and Hispanic ethnicity

Table S2. Association between total trihalomethanes and bladder cancer, New England Bladder Cancer Study, 2001-2004 excluding time using private wells treated with bleach

	Cases	Controls	OR	95% CI
Average Concentration (µg/L)[a,c]				
0-8.70	211	241	1.0	
>8.70-18.21	181	241	0.83	0.62-1.10
>18.21-29.31	212	241	1.03	0.77-1.37
>29.31-40.28	129	144	1.04	0.76-1.44
>40.28-48.61	41	48	1.06	0.65-1.74
>48.61	41	48	1.11	0.67-1.81
			p-trend=0.37	
Cumulative Intake (mg)[b,c]				
0-170.58	174	241	1.0	
>170.58-455.00	201	241	1.12	0.84-1.50
>455.00-891.22	216	241	1.18	0.89-1.58
>891.22-1462.33	122	144	1.07	0.76-1.50
>1462.33-1918.95	41	48	1.20	0.73-1.97
>1918.95	61	48	1.60	1.01-2.53
			p-trend=0.10	
Average daily intake (µg/day)[b,c]				
0-10.79	177	241	1.0	
>10.79-26.44	188	241	1.07	0.80-1.43
>26.44-51.73	226	241	1.31	0.99-1.75
>51.73-81.96	120	144	1.07	0.77-1.50
>81.96-108.41	38	48	0.94	0.57-1.55
>108.41	66	48	1.82	1.16-2.88
			p-trend=0.04	

[a]Adjusted for age (<55, 55–64, 65–74 and 75-79 years), sex, ethnicity (Hispanic yes or no), race (White only, mixed race, other race), smoking status (never, occasional, former, current, state of residence (Maine, New Hampshire, Vermont), and ever employment in a high risk occupation and water intake (≤1.09 L/day, >1.09-1.53 L/day, >1.53-2.24 L/day, >2.24-3.79 L/day, >3.79 L/day)

[b] Adjusted for age, state, ethnicity, race, smoking status, employment in high risk occupation

Note: the p-trend was derived by using the midpoint of the category as a continuous variable.