

Supporting Information

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Table S1. Demographics of the UCLA PEG Study

Parameter	Cases (<i>n</i> = 360)	Controls (<i>n</i> = 754)	<i>P</i> value*
Sex, <i>n</i> (%)			
Female	154 (42.8)	402 (53.3)	
Male	206 (57.2)	352 (46.7)	0.001
Age [†]			
Mean (SD)	68.3 (10.2)	66.9 (11.2)	0.036
Range	34–88	35–99	
Race, <i>n</i> (%) [‡]			
Caucasian, non-Hispanic	290 (80.6)	526 (69.8)	
Caucasian, Hispanic	47 (13.1)	144 (19.1)	
Native American	16 (4.4)	35 (4.6)	
African American	3 (0.8)	25 (3.3)	
Asian American	4 (1.1)	22 (2.9)	0.002
County, <i>n</i> (%)			
Fresno, CA	163 (45.3)	310 (41.1)	
Kern, CA	129 (35.8)	322 (42.7)	
Tulare, CA	68 (18.9)	122 (16.2)	0.087
Smoking, <i>n</i> (%)			
Never	188 (52.2)	364 (48.3)	
Former	152 (42.2)	304 (40.3)	
Current	20 (5.6)	86 (11.4)	0.008
Education, <i>n</i> (%)			
<12 y	67 (18.6)	111 (14.7)	
12 y	96 (26.7)	156 (20.7)	
>12 y	197 (54.7)	487 (64.6)	0.007
Family history of PD, <i>n</i> (%) [§]			
No	307 (85.3)	691 (91.6)	
Yes	53 (14.7)	63 (8.4)	0.001

Eligibility criteria for cases included (*i*) first PD diagnosis by a physician within 3 y of recruitment, (*ii*) adequate health to be examined, (*iii*) residence in one of the counties of interest, and (*iv*) residence in California for at least 5 y before recruitment. All eligible cases were examined by a UCLA movement disorder specialist who confirmed the diagnosis of PD. Of 1,167 PD patients initially invited, 604 did not meet eligibility criteria. Of the remaining 563 eligible patients, 473 were examined, of which 360 met criteria for PD and were included in these analyses. Population-based controls were recruited from Medicare lists and predominantly from residential tax assessor records from the same three counties. Eligibility criteria for controls included (*ii–iv*) above and being at least 35 y of age. Of 1,996 eligible population controls, 1,043 declined participation, were too ill to participate, or moved away before enrollment. The 754 population controls had complete data for inclusion in these analyses. PD, Parkinson disease; PEG, Parkinson's Environment and Genes; UCLA, University of California Los Angeles.

**P* value for χ^2 test or *t* test.

[†]Age at diagnosis for cases; age at interview for controls.

[‡]Race information unavailable for two controls.

[§]Defined as first-degree relative with PD; data unavailable and assumed negative for 27 controls.

Table S2. Associations between estimated ambient occupational or residential benomyl exposures and PD risk in the UCLA PEG Study, stratified by median

Exposure, n (%) [*]	Cases (n = 360)	Controls (n = 754)	OR (95%CI) [†]	P value [‡]
Occupational				
No	217 (60.3)	531 (70.4)	1.00	
Low	49 (13.6)	106 (14.1)	0.98 (0.66–1.46)	0.93
High	94 (26.1)	117 (15.5)	1.67 (1.19–2.34)	0.0027
Residential				
No	209 (58.1)	467 (61.9)	1.00	
Low	72 (20.0)	143 (19.0)	1.00 (0.70–1.43)	1.00
High	79 (21.9)	144 (19.1)	0.99 (0.70–1.41)	0.98

^{*}“Low” exposure is defined as below the median value in exposed controls; “high” exposure is defined as equal to or above the median value in exposed controls. Two cases and one control with incomplete occupational data and one case with incomplete residential data were assumed to be unexposed. CI, confidence interval; OR, unconditional logistic odds ratio; PD, Parkinson disease; PEG, Parkinson’s Environment and Genes; UCLA, University of California Los Angeles.

[†]Adjusted for age (continuous), sex (male/female), smoking status (current/former/never), county (Fresno/Kern/Tulare, CA), and education (<12 y/=12 y/>12 y).

[‡]For multiple testing considerations, eight tests were performed and a P value of 0.006 was considered statistically significant.