

## Supplementary Tables

### Supplementary Table S1. Survey questions

ALS participants were asked to answer questions as things were before the diagnosis of ALS.

Category	Question	Response
Check any of the automobile repairs <u>you personally</u> did on your (or others) cars or motorcycles.		
	Work on the engine, e.g. mechanical repair, oil change,	Check if applies
	Detailing the body, e.g. repair, painting, waxing etc.	Check if applies
	Work on the exhaust	Check if applies
	Repair and maintenance, e.g., check fluids, coolant flush	Check if applies
	Work with the brake /transmission/power steering fluids	Check if applies
	Worked with car brakes	Check if applies
Does or did a member of your household work on your car? If yes, briefly describe what kind of work they do or did?		
	Work on the engine, e.g. mechanical repair, oil change,	Check if applies
	Detailing the body, e.g. repair, painting, waxing etc.	Check if applies
	Work on the exhaust	Check if applies
	Repair and maintenance, e.g., check fluids, coolant flush	Check if applies
	Work with the brake /transmission/power steering fluids	Check if applies
	Worked with car brakes	Check if applies
Do or did <u>you</u> have any of the following hobbies or crafts?		
	Wood working	Check if applies
	Car/motorcycle/boat restoration	Check if applies
	Metal working, e.g., welding or soldering metals, jewelry-making	Check if applies
	Fishing and or swimming in the Great Lakes	Check if applies
	Fishing/swimming in inland lakes	Check if applies
	Hunting, guns, shooting skeet, trap or targets.	Check if applies

	Home remodeling, furniture refinishing	Check if applies
	Making stained glass, pottery or ceramics	Check if applies
	Photograph development (in the dark room)	Check if applies
	Painting (oil and spray) pictures or other fine arts	Check if applies
For other members of your household, do they or did they have any of the following hobbies or crafts?		
	Wood working	Check if applies
	Car/motorcycle/boat restoration	Check if applies
	Metal working, e.g., welding or soldering metals, jewelry-making	Check if applies
	Fishing and or swimming in the Great Lakes	Check if applies
	Fishing/swimming in inland lakes	Check if applies
	Hunting, guns, shooting skeet, trap or targets.	Check if applies
	Home remodeling, furniture refinishing	Check if applies
	Making stained glass, pottery or ceramics	Check if applies
	Photograph development (in the dark room)	Check if applies
	Painting (oil and spray) pictures or other fine arts	Check if applies
While <u>not</u> at work, are you currently exposed or have you been previously exposed to any of the following?		
	Welding Fumes	Check if applies
	Aluminum	Check if applies
	Arsenic	Check if applies
	Beryllium	Check if applies
	Cadmium	Check if applies
	Iron	Check if applies
	Lead	Check if applies
	Mercury	Check if applies
	Nickel	Check if applies
We are interested in the following exercises, sports, or physically active hobbies that you might have done. Again, this applies to a period of 5 years ago. Did you...		

	Jog or run?	Yes/No
	Ride a bicycle or an exercise bicycle?	Yes/No
	Swim?	Yes/No
	Do aerobics or aerobic dancing?	Yes/No
	Do recreational dancing?	Yes/No
	Do calisthenics or exercises?	Yes/No
	Do gardening or yard work?	Yes/No
	Lift weights?	Yes/No
	Play soccer?	Yes/No
	Play football?	Yes/No
	Play baseball?	Yes/No
	Play field hockey?	Yes/No
	Play golf?	Yes/No
	Play ice hockey?	Yes/No
	Play tennis?	Yes/No
	Box?	Yes/No
	Wrestle?	Yes/No

**Supplementary Table S2. Individual participation in avocational activities by case/control status**

N, number.

Factor	Cases						Controls					
	N (Yes)	N (No)	N (Missing)	Mean Age (Yes)	Mean Age (No)	P-Value	N (Yes)	N (No)	N (Missing)	Mean Age (Yes)	Mean Age (No)	P-Value
Jog	90	297	13	60.4	63.2	0.023	65	220	2	58.5	61.3	0.139
Bike	188	201	11	62.5	62.7	0.859	138	148	1	61.2	60.1	0.588
Swim	134	255	11	60.0	64.0	0.000	86	199	2	62.1	60.0	0.062
Aerobics	45	343	12	64.6	62.3	0.225	42	242	3	64.8	59.9	0.003
Recreational Dancing	75	314	11	62.9	62.4	0.512	31	253	3	60.7	60.6	0.797
Calisthenics	141	249	10	61.2	63.3	0.094	100	184	3	62.7	59.5	0.041
Gardening	314	77	9	62.8	61.6	0.645	202	84	1	60.9	60.0	0.631
Weightlifting	117	272	11	59.4	63.9	0.000	79	206	2	60.8	60.7	0.930
Golf	66	261	73	63.6	63.0	0.562	13	239	35	66.9	60.4	0.035
Iron	41	355	4	61.7	62.7	0.625	18	264	5	57.4	60.8	0.467
Lead	30	366	4	64.3	62.5	0.517	15	267	5	63.9	60.4	0.111
Mercury	25	371	4	65.2	62.5	0.307	12	270	5	63.8	60.4	0.260
Aluminum	30	366	4	61.8	62.7	0.697	14	268	5	59.0	60.6	0.615
Welding Fumes	39	354	7	62.8	62.7	0.970	19	261	7	58.9	60.9	0.445

**Supplementary Table S3. Individual or household member participation in hobbies by case/control status**

The p-values here correspond to a significance test comparing those individuals with a personal hobby and those with no hobby in the family. N, number.

Description	Cases								Controls							
	N				Mean Age				N				Mean Age			
	(No Hobby)	(Family)	(Personal)	(Missing)	(No Hobby)	(Family Only)	(Personal)	P-Value	(No Hobby)	(Family)	(Personal)	(Missing)	(No Hobby)	(Family Only)	(Personal)	P-Value
Hobby - wood working	207	41	117	35	63.1	61.4	62.3	0.484	196	24	56	11	60.7	58.8	61.0	0.787
Hobby - Car/motorcycle/boat restoration	267	37	61	35	62.9	63.2	61.0	0.219	213	25	38	11	60.5	63.0	59.6	0.340
Hobby - metal working	308	16	41	35	62.7	62.2	62.0	0.700	236	19	21	11	61.0	59.9	56.9	0.384
Hobby - hunting, guns, shooting skeet, trap, or targets	190	68	107	35	63.7	60.5	62.0	0.469	199	34	43	11	61.4	56.7	59.8	0.416
Hobby - home remodeling, furniture refinishing	156	42	167	35	63.3	60.6	62.5	0.564	146	26	104	11	60.3	57.6	61.7	0.227
Hobby - making stained glass, pottery, or ceramics	310	17	38	35	62.5	64.7	63.0	1.000	238	7	31	11	60.7	66.2	58.3	0.591
Hobby - photograph development	330	12	23	35	62.7	63.1	61.0	0.520	246	11	19	11	60.7	58.2	60.8	0.677
Hobby - painting pictures or other fine arts	286	31	48	35	63.0	62.0	61.1	0.104	218	16	42	11	61.2	57.0	59.0	0.606
Auto - repair and maintenance	127	69	171	33	64.1	62.8	61.0	0.024	118	37	118	14	61.3	62.1	59.3	0.055

**Supplementary Table S4. Male only avocational exposures risk model All Hobby Variables**

Models adjusted for military service, age at symptom onset / survey consent, and education. Total, N = 350 men (cases, N = 216; controls, N = 134). BH, Benjamini-Hochberg; CI, confidence interval; N, number; OR, odds ratio.

Description	N (Exposed)	% Exposed	OR	95% CI	P-Value	Q-Value (BH)
Exercise - swim	111.95	32.0	2.40	(1.42, 4.05)	0.001	0.013
Exercise - golf	85.05	24.3	3.51	(1.65, 7.47)	0.001	0.013
Hobby - wood working - Personal	155.00	44.3	2.33	(1.40, 3.88)	0.001	0.013
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	144.35	41.2	2.18	(1.30, 3.65)	0.003	0.024
Exercise - gardening or yard work	267.45	76.4	2.10	(1.23, 3.58)	0.007	0.044
Hobby - metal working - Personal	60.50	17.3	2.60	(1.26, 5.39)	0.010	0.053
Hobby - home remodeling, furniture refinishing - Personal	172.10	49.2	1.78	(1.08, 2.93)	0.023	0.104
Exercise - recreational dancing	39.20	11.2	2.19	(0.97, 4.95)	0.059	0.236
Exercise - weightlifting	122.60	35.0	1.56	(0.95, 2.56)	0.081	0.288
Hobby - making stained glass, pottery, or ceramics - Family Only	20.75	5.9	2.60	(0.77, 8.78)	0.124	0.359
Hobby - photograph development - Personal	28.35	8.1	2.07	(0.81, 5.32)	0.130	0.359
Hobby - home remodeling, furniture refinishing - Family Only	28.20	8.1	2.15	(0.79, 5.84)	0.134	0.359
Exercise - calisthenics	122.40	35.0	1.42	(0.87, 2.31)	0.156	0.385

Exercise - jog or run	100.45	28.7	1.39	(0.83, 2.34)	0.212	0.485
Hobby - wood working - Family Only	18.80	5.4	1.98	(0.64, 6.19)	0.238	0.508
Non-work iron exposure	51.85	14.8	1.51	(0.74, 3.09)	0.257	0.514
Non-work mercury exposure	27.20	7.8	1.67	(0.63, 4.45)	0.305	0.543
Hobby - photograph development - Family Only	12.80	3.7	0.51	(0.13, 1.95)	0.325	0.543
Auto - repair and maintenance - Personal	256.25	73.2	0.76	(0.44, 1.32)	0.327	0.543
Hobby - painting pictures or other fine arts - Personal	39.30	11.2	0.70	(0.34, 1.48)	0.355	0.543
Hobby - Car/motorcycle/boat restoration - Personal	103.90	29.7	1.29	(0.75, 2.20)	0.356	0.543
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	24.00	6.9	1.44	(0.57, 3.64)	0.445	0.618
Non-work lead exposure	34.20	9.8	1.39	(0.59, 3.29)	0.453	0.618
Hobby - painting pictures or other fine arts - Family Only	37.25	10.6	1.36	(0.60, 3.08)	0.463	0.618
Exercise - bike	182.55	52.2	1.16	(0.73, 1.83)	0.533	0.664
Non-work exposure to welding fumes	53.25	15.2	1.25	(0.61, 2.53)	0.539	0.664
Hobby - Car/motorcycle/boat restoration - Family Only	13.90	4.0	1.52	(0.36, 6.40)	0.570	0.676
Hobby - making stained glass, pottery, or ceramics - Personal	19.75	5.6	0.78	(0.25, 2.40)	0.666	0.757
Exercise - aerobics	16.70	4.8	0.80	(0.26, 2.41)	0.686	0.757

Non-work aluminum exposure	40.45	11.6	1.10	(0.52, 2.36)	0.799	0.852
Hobby - metal working - Family Only	13.85	4.0	0.92	(0.26, 3.26)	0.899	0.928
Auto - repair and maintenance - Family Only	6.90	2.0	2064.39	(0.00, Inf)	0.988	0.988

**Supplementary Table S5. Female only avocational exposures risk model**

Models are adjusted for military service, age at symptom onset / survey consent, and education. Total, N = 337 women (cases, N = 184; controls, N = 153). BH, Benjamini-Hochberg; CI, confidence interval; N, number; OR, odds ratio.

Description	N (Exposed)	% Exposed	OR	95% CI	P-Value	Q-Value (BH)
Hobby - wood working - Family Only	57.85	17.2	2.18	(1.11, 4.29)	0.024	0.382
Exercise - golf	26.60	7.9	4.18	(1.14, 15.34)	0.031	0.382
Exercise - recreational dancing	71.30	21.2	1.84	(1.01, 3.33)	0.046	0.382
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	87.40	25.9	1.84	(1.01, 3.37)	0.048	0.382
Auto - repair and maintenance - Family Only	114.30	33.9	1.66	(0.97, 2.86)	0.066	0.421
Hobby - Car/motorcycle/boat restoration - Personal	9.15	2.7	0.27	(0.04, 1.65)	0.155	0.655
Exercise - gardening or yard work	256.40	76.1	1.44	(0.83, 2.49)	0.199	0.655
Hobby - metal working - Family Only	29.95	8.9	0.56	(0.23, 1.39)	0.211	0.655
Hobby - home remodeling, furniture refinishing - Family Only	52.85	15.7	1.52	(0.75, 3.08)	0.248	0.655
Exercise - calisthenics	123.90	36.8	1.34	(0.81, 2.21)	0.250	0.655
Exercise - weightlifting	78.10	23.2	1.39	(0.79, 2.42)	0.250	0.655
Exercise - jog or run	60.10	17.8	1.42	(0.77, 2.63)	0.266	0.655
Hobby - photograph development - Personal	18.90	5.6	0.54	(0.18, 1.59)	0.266	0.655
Non-work exposure to welding fumes	11.00	3.3	0.49	(0.13, 1.85)	0.295	0.673
Exercise - swim	113.05	33.5	0.78	(0.47, 1.28)	0.321	0.685
Hobby - making stained glass, pottery, or ceramics - Family Only	11.05	3.3	2.00	(0.46, 8.61)	0.353	0.707
Auto - repair and maintenance - Personal	48.95	14.5	0.72	(0.35, 1.50)	0.382	0.720
Hobby - photograph development - Family Only	14.70	4.4	1.65	(0.47, 5.81)	0.438	0.765
Exercise - bike	151.05	44.8	1.20	(0.75, 1.92)	0.454	0.765
Hobby - painting pictures or other fine arts - Family Only	19.10	5.7	1.39	(0.44, 4.43)	0.578	0.925

Non-work aluminum exposure	8.00	2.4	1.38	(0.29, 6.68)	0.685	0.971
Hobby - painting pictures or other fine arts - Personal	59.05	17.5	1.13	(0.61, 2.12)	0.693	0.971
Hobby - Car/motorcycle/boat restoration - Family Only	57.00	16.9	1.14	(0.59, 2.18)	0.698	0.971
Hobby - home remodeling, furniture refinishing - Personal	119.70	35.5	0.92	(0.54, 1.54)	0.742	0.979
Hobby - wood working - Personal	34.50	10.2	0.91	(0.40, 2.06)	0.820	0.979
Non-work lead exposure	15.00	4.5	1.13	(0.37, 3.43)	0.829	0.979
Exercise - aerobics	74.60	22.1	1.05	(0.60, 1.85)	0.860	0.979
Hobby - making stained glass, pottery, or ceramics - Personal	56.15	16.7	0.95	(0.50, 1.82)	0.879	0.979
Non-work mercury exposure	13.00	3.9	1.05	(0.33, 3.33)	0.936	0.979
Non-work iron exposure	12.00	3.6	1.04	(0.28, 3.81)	0.958	0.979
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	21.20	6.3	1.01	(0.37, 2.81)	0.977	0.979
Hobby - metal working - Personal	10.70	3.2	0.00	(0.00, Inf)	0.979	0.979

**Supplementary Table S6. Onset segment associations with avocational risk factors.**

Reference Category is Lumbar. Models are adjusted for age, sex, education, and military service. BH, Benjamini-Hochberg; CI, confidence interval; N, number; OR, odds ratio.

*A. Bulbar vs Lumbar*

<b>Description</b>	<b>N (Exposed)</b>	<b>% Exposed</b>	<b>OR</b>	<b>95% CI</b>	<b>P-Value</b>	<b>Q-Value (BH)</b>
Non-work mercury exposure	10.70	2.7	3.43	(1.02, 11.52)	0.046	0.683
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	32.45	8.1	1.90	(0.91, 3.97)	0.086	0.683
Hobby - wood working - Personal	35.75	8.9	1.61	(0.82, 3.18)	0.167	0.683
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	25.65	6.4	1.64	(0.79, 3.39)	0.182	0.683
Exercise - recreational dancing	31.80	8.0	1.55	(0.81, 2.97)	0.190	0.683
Hobby - home remodeling, furniture refinishing - Personal	57.95	14.5	1.44	(0.82, 2.53)	0.204	0.683
Hobby - painting pictures or other fine arts - Family Only	9.25	2.3	0.54	(0.21, 1.40)	0.206	0.683
Hobby - photograph development - Personal	9.05	2.3	2.10	(0.64, 6.89)	0.220	0.683
Exercise - aerobics	20.90	5.2	1.63	(0.73, 3.61)	0.233	0.683
Hobby - painting pictures or other fine arts - Personal	19.00	4.8	1.58	(0.73, 3.43)	0.247	0.683
Hobby - photograph development - Family Only	3.05	0.8	0.40	(0.08, 1.98)	0.259	0.683
Hobby - making stained glass, pottery, or ceramics - Family Only	4.70	1.2	0.47	(0.12, 1.87)	0.280	0.683

Hobby - making stained glass, pottery, or ceramics - Personal	12.80	3.2	0.64	(0.28, 1.46)	0.290	0.683
Hobby - wood working - Family Only	19.95	5.0	1.50	(0.70, 3.22)	0.299	0.683
Exercise - calisthenics	34.35	8.6	0.79	(0.45, 1.37)	0.396	0.845
Exercise - jog or run	21.00	5.2	0.79	(0.41, 1.52)	0.477	0.897
Exercise - bike	62.45	15.6	1.17	(0.70, 1.97)	0.546	0.897
Exercise - golf	21.75	5.4	0.81	(0.38, 1.75)	0.590	0.897
Hobby - Car/motorcycle/boat restoration - Family Only	16.70	4.2	1.24	(0.54, 2.85)	0.605	0.897
Non-work iron exposure	11.85	3.0	1.24	(0.51, 3.04)	0.640	0.897
Hobby - Car/motorcycle/boat restoration - Personal	15.90	4.0	0.82	(0.35, 1.93)	0.642	0.897
Hobby - home remodeling, furniture refinishing - Family Only	16.40	4.1	1.19	(0.51, 2.75)	0.686	0.897
Hobby - metal working - Personal	10.80	2.7	1.22	(0.45, 3.32)	0.699	0.897
Non-work aluminum exposure	7.85	2.0	0.82	(0.30, 2.26)	0.703	0.897
Non-work exposure to welding fumes	8.90	2.2	0.84	(0.32, 2.19)	0.714	0.897
Hobby - metal working - Family Only	7.20	1.8	0.81	(0.24, 2.69)	0.729	0.897
Auto - repair and maintenance - Personal	44.15	11.0	1.11	(0.52, 2.37)	0.780	0.910
Non-work lead exposure	7.70	1.9	1.15	(0.40, 3.32)	0.797	0.910

Auto - repair and maintenance - Family Only	32.80	8.2	1.06	(0.53, 2.13)	0.864	0.920
Exercise - swim	35.85	9.0	0.96	(0.56, 1.67)	0.897	0.920
Exercise - weightlifting	27.65	6.9	0.96	(0.52, 1.77)	0.902	0.920
Exercise - gardening or yard work	93.90	23.5	1.03	(0.54, 1.96)	0.920	0.920

*B. Cervical vs Lumbar*

<b>Description</b>	<b>N (Exposed)</b>	<b>% Exposed</b>	<b>OR</b>	<b>95% CI</b>	<b>P-Value</b>	<b>Q-Value (BH)</b>
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	23.90	6.0	2.60	(1.24, 5.45)	0.011	0.299
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	57.40	14.3	2.16	(1.14, 4.12)	0.019	0.299
Hobby - painting pictures or other fine arts - Family Only	8.70	2.2	0.35	(0.14, 0.89)	0.028	0.299
Exercise - bike	57.50	14.4	0.62	(0.38, 1.03)	0.063	0.502
Non-work mercury exposure	11.25	2.8	2.59	(0.78, 8.56)	0.120	0.765
Hobby - making stained glass, pottery, or ceramics - Family Only	7.15	1.8	0.50	(0.16, 1.56)	0.235	0.904
Non-work lead exposure	15.20	3.8	1.69	(0.66, 4.32)	0.270	0.904
Hobby - making stained glass, pottery, or ceramics - Personal	9.60	2.4	0.61	(0.25, 1.53)	0.293	0.904
Auto - repair and maintenance - Family Only	13.35	3.3	0.65	(0.29, 1.49)	0.314	0.904
Hobby - Car/motorcycle/boat restoration - Personal	30.15	7.5	0.70	(0.35, 1.42)	0.330	0.904

Exercise - gardening or yard work	112.20	28.0	1.36	(0.72, 2.56)	0.346	0.904
Hobby - photograph development - Family Only	3.45	0.9	0.46	(0.09, 2.34)	0.348	0.904
Exercise - calisthenics	55.95	14.0	1.26	(0.76, 2.10)	0.375	0.904
Hobby - wood working - Family Only	9.45	2.4	0.67	(0.27, 1.69)	0.396	0.904
Hobby - painting pictures or other fine arts - Personal	18.55	4.6	1.36	(0.63, 2.95)	0.433	0.904
Hobby - metal working - Personal	24.85	6.2	1.35	(0.59, 3.10)	0.475	0.904
Hobby - photograph development - Personal	10.80	2.7	1.42	(0.48, 4.22)	0.526	0.904
Non-work aluminum exposure	12.30	3.1	0.78	(0.32, 1.88)	0.579	0.904
Hobby - wood working - Personal	56.75	14.2	1.19	(0.65, 2.17)	0.582	0.904
Non-work exposure to welding fumes	20.65	5.2	1.24	(0.55, 2.77)	0.601	0.904
Exercise - aerobics	11.10	2.8	1.24	(0.52, 2.95)	0.629	0.904
Exercise - golf	35.25	8.8	0.84	(0.42, 1.70)	0.634	0.904
Hobby - home remodeling, furniture refinishing - Personal	61.85	15.5	0.88	(0.51, 1.53)	0.650	0.904
Exercise - weightlifting	48.75	12.2	1.10	(0.64, 1.90)	0.727	0.969
Auto - repair and maintenance - Personal	78.85	19.7	1.08	(0.56, 2.06)	0.820	0.998
Non-work iron exposure	18.55	4.6	1.09	(0.49, 2.44)	0.831	0.998

Hobby - Car/motorcycle/boat restoration - Family Only	10.55	2.6	1.09	(0.44, 2.71)	0.854	0.998
Hobby - metal working - Family Only	6.05	1.5	0.91	(0.25, 3.28)	0.884	0.998
Exercise - swim	49.75	12.4	0.98	(0.59, 1.65)	0.949	0.998
Exercise - recreational dancing	20.10	5.0	1.02	(0.52, 1.99)	0.961	0.998
Hobby - home remodeling, furniture refinishing - Family Only	16.25	4.1	1.01	(0.43, 2.40)	0.973	0.998
Exercise - jog or run	36.85	9.2	1.00	(0.56, 1.78)	0.998	0.998

**Supplementary Table S7. Survival associations with avocational risk factors**

Models adjusted for military service, sex, age at diagnosis, education, time between symptom onset and diagnosis, El Escorial criterion, onset segment, and family history of ALS. BH, Benjamini-Hochberg; CI, confidence interval; HR, hazard ratio; N, number.

Description	N (Exposed)	% Exposed	HR	95% CI	P-Value	Q-Value (BH)
Exercise - bike	194.95	48.7	1.27	(1.02, 1.57)	0.029	0.630
Auto - repair and maintenance - Family Only	81.80	20.4	1.38	(1.01, 1.89)	0.044	0.630
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	74.10	18.5	1.29	(0.94, 1.77)	0.109	0.630
Hobby - home remodeling, furniture refinishing - Family Only	53.40	13.3	1.30	(0.93, 1.83)	0.129	0.630
Hobby - Car/motorcycle/boat restoration - Personal	72.65	18.2	0.78	(0.57, 1.09)	0.145	0.630
Hobby - photograph development - Family Only	15.30	3.8	0.64	(0.34, 1.17)	0.147	0.630
Exercise - aerobics	49.00	12.2	0.78	(0.55, 1.09)	0.148	0.630
Non-work lead exposure	31.80	8.0	1.34	(0.89, 2.00)	0.158	0.630
Hobby - making stained glass, pottery, or ceramics - Family Only	23.70	5.9	0.74	(0.45, 1.21)	0.228	0.700
Hobby - painting pictures or other fine arts - Personal	54.55	13.6	1.21	(0.87, 1.68)	0.250	0.700
Non-work mercury exposure	26.60	6.7	1.29	(0.83, 1.99)	0.258	0.700
Hobby - metal working - Personal	48.50	12.1	1.23	(0.86, 1.75)	0.262	0.700
Non-work exposure to welding fumes	41.95	10.5	1.22	(0.84, 1.76)	0.294	0.723
Hobby - photograph development - Personal	27.20	6.8	0.81	(0.52, 1.26)	0.348	0.742
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	119.95	30.0	1.14	(0.86, 1.51)	0.375	0.742
Hobby - wood working - Personal	130.90	32.7	0.89	(0.68, 1.16)	0.386	0.742
Non-work iron exposure	43.35	10.8	0.86	(0.60, 1.23)	0.413	0.742

Hobby - painting pictures or other fine arts - Family Only	38.35	9.6	0.85	(0.58, 1.25)	0.418	0.742
Exercise - recreational dancing	78.70	19.7	1.11	(0.85, 1.46)	0.440	0.742
Hobby - making stained glass, pottery, or ceramics - Personal	42.70	10.7	1.10	(0.76, 1.61)	0.606	0.915
Exercise - calisthenics	144.45	36.1	1.06	(0.85, 1.33)	0.610	0.915
Non-work aluminum exposure	32.05	8.0	0.91	(0.60, 1.36)	0.629	0.915
Hobby - home remodeling, furniture refinishing - Personal	182.30	45.6	1.05	(0.83, 1.34)	0.678	0.915
Hobby - Car/motorcycle/boat restoration - Family Only	43.60	10.9	1.07	(0.75, 1.54)	0.697	0.915
Exercise - gardening or yard work	321.20	80.3	1.04	(0.80, 1.37)	0.752	0.915
Auto - repair and maintenance - Personal	180.05	45.0	1.05	(0.77, 1.43)	0.761	0.915
Hobby - metal working - Family Only	22.70	5.7	1.07	(0.66, 1.73)	0.789	0.915
Exercise - weightlifting	120.85	30.2	1.03	(0.81, 1.31)	0.800	0.915
Exercise - jog or run	94.95	23.7	0.98	(0.75, 1.27)	0.864	0.938
Exercise - swim	138.15	34.5	1.01	(0.81, 1.27)	0.911	0.938
Exercise - golf	90.25	22.6	0.99	(0.73, 1.33)	0.933	0.938
Hobby - wood working - Family Only	51.10	12.8	1.01	(0.72, 1.43)	0.938	0.938

**Supplementary Table S8. Age at onset (all participants)**

Models adjusted for military service, sex, education, and family history of ALS. BH, Benjamini-Hochberg; CI, confidence interval; N, number.

<b>Description</b>	<b>N (Exposed)</b>	<b>% Exposed</b>	<b>Beta</b>	<b>95% CI</b>	<b>P-Value</b>	<b>Q-Value (BH)</b>
Exercise - swim	138.15	34.5	-3.86	(-6.02, -1.69)	0.000	0.016
Exercise - weightlifting	120.85	30.2	-3.83	(-6.15, -1.50)	0.001	0.020
Exercise - jog or run	94.95	23.7	-2.99	(-5.49, -0.49)	0.019	0.156
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	74.10	18.5	-3.50	(-6.44, -0.56)	0.019	0.156
Exercise - calisthenics	144.45	36.1	-1.75	(-3.94, 0.45)	0.118	0.658
Exercise - golf	90.25	22.6	2.12	(-0.62, 4.87)	0.130	0.658
Hobby - home remodeling, furniture refinishing - Family Only	53.40	13.3	-2.44	(-5.81, 0.93)	0.156	0.658
Hobby - painting pictures or other fine arts - Personal	54.55	13.6	-2.19	(-5.28, 0.90)	0.165	0.658
Auto - repair and maintenance - Personal	180.05	45.0	-1.85	(-4.65, 0.96)	0.197	0.701
Hobby - wood working - Family Only	51.10	12.8	-2.01	(-5.39, 1.37)	0.244	0.770
Exercise - gardening or yard work	321.20	80.3	1.51	(-1.16, 4.17)	0.267	0.770
Hobby - photograph development - Personal	27.20	6.8	-2.23	(-6.51, 2.06)	0.308	0.770
Hobby - painting pictures or other fine arts - Family Only	38.35	9.6	-1.99	(-5.86, 1.88)	0.313	0.770
Auto - repair and maintenance - Family Only	81.80	20.4	-1.54	(-4.69, 1.61)	0.338	0.772
Hobby - making stained glass, pottery, or ceramics - Family Only	23.70	5.9	1.71	(-2.85, 6.27)	0.463	0.794

Non-work lead exposure	31.80	8.0	1.42	(-2.43, 5.27)	0.469	0.794
Hobby - Car/motorcycle/boat restoration - Personal	72.65	18.2	-1.13	(-4.20, 1.93)	0.469	0.794
Hobby - Car/motorcycle/boat restoration - Family Only	43.60	10.9	-1.27	(-4.85, 2.30)	0.485	0.794
Exercise - recreational dancing	78.70	19.7	-0.89	(-3.59, 1.81)	0.519	0.794
Hobby - metal working - Family Only	22.70	5.7	-1.56	(-6.40, 3.28)	0.528	0.794
Hobby - wood working - Personal	130.90	32.7	0.82	(-1.74, 3.38)	0.529	0.794
Non-work exposure to welding fumes	41.95	10.5	1.04	(-2.46, 4.54)	0.560	0.794
Non-work mercury exposure	26.60	6.7	1.22	(-3.00, 5.44)	0.571	0.794
Hobby - metal working - Personal	48.50	12.1	0.78	(-2.70, 4.25)	0.661	0.882
Non-work aluminum exposure	32.05	8.0	-0.74	(-4.61, 3.14)	0.710	0.908
Exercise - aerobics	49.00	12.2	0.48	(-2.96, 3.93)	0.783	0.931
Hobby - photograph development - Family Only	15.30	3.8	0.79	(-4.87, 6.44)	0.785	0.931
Hobby - making stained glass, pottery, or ceramics - Personal	42.70	10.7	0.43	(-3.22, 4.08)	0.817	0.934
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	119.95	30.0	-0.25	(-3.00, 2.50)	0.859	0.948
Exercise - bike	194.95	48.7	-0.12	(-2.22, 1.98)	0.912	0.972
Hobby - home remodeling, furniture refinishing - Personal	182.30	45.6	0.08	(-2.18, 2.34)	0.946	0.976
Non-work iron exposure	43.35	10.8	-0.04	(-3.46, 3.38)	0.981	0.981

**Supplementary Table S9. Age at onset stratified for males**

Models adjusted for military service, education, onset segment, and family history of ALS. BH, Benjamini-Hochberg; CI, confidence interval; N, number.

<b>Description</b>	<b>N (Exposed)</b>	<b>% Exposed</b>	<b>Beta</b>	<b>95% CI</b>	<b>P- Value</b>	<b>Q-Value (BH)</b>
Exercise - weightlifting	78.75	36.5	-4.94	(-8.16, -1.71)	0.003	0.086
Hobby - home remodeling, furniture refinishing - Family Only	19.55	9.1	-7.58	(-13.70, -1.47)	0.015	0.192
Exercise - swim	82.10	38.0	-3.74	(-6.84, -0.64)	0.018	0.192
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	14.00	6.5	-7.41	(-13.92, -0.90)	0.026	0.205
Hobby - wood working - Family Only	12.15	5.6	-7.69	(-15.44, 0.07)	0.052	0.333
Exercise - golf	68.75	31.8	3.22	(-0.29, 6.73)	0.072	0.385
Exercise - calisthenics	78.00	36.1	-2.75	(-5.92, 0.41)	0.088	0.404
Auto - repair and maintenance - Family Only	6.10	2.8	-7.99	(-17.98, 2.00)	0.117	0.450
Exercise - jog or run	62.85	29.1	-2.61	(-6.00, 0.79)	0.133	0.450
Hobby - wood working - Personal	113.10	52.4	2.37	(-0.78, 5.52)	0.141	0.450
Non-work lead exposure	23.80	11.0	3.47	(-1.37, 8.32)	0.160	0.465
Exercise - gardening or yard work	175.80	81.4	2.78	(-1.23, 6.80)	0.174	0.465
Hobby - painting pictures or other fine arts - Family Only	26.00	12.0	-2.91	(-7.83, 2.01)	0.246	0.607

Exercise - recreational dancing	29.40	13.6	-2.38	(-7.05, 2.29)	0.318	0.726
Hobby - metal working - Family Only	7.75	3.6	-3.89	(-13.05, 5.27)	0.404	0.816
Hobby - making stained glass, pottery, or ceramics - Family Only	16.00	7.4	2.61	(-3.57, 8.78)	0.408	0.816
Non-work mercury exposure	19.60	9.1	2.04	(-3.30, 7.38)	0.454	0.844
Hobby - photograph development - Personal	20.70	9.6	-1.81	(-7.11, 3.49)	0.503	0.844
Hobby - photograph development - Family Only	6.00	2.8	-3.42	(-13.58, 6.74)	0.509	0.844
Exercise - bike	112.90	52.3	-0.97	(-4.04, 2.10)	0.535	0.844
Hobby - painting pictures or other fine arts - Personal	22.45	10.4	-1.32	(-6.38, 3.74)	0.609	0.844
Hobby - metal working - Personal	48.45	22.4	0.96	(-2.78, 4.70)	0.615	0.844
Non-work exposure to welding fumes	37.95	17.6	0.94	(-3.09, 4.98)	0.646	0.844
Auto - repair and maintenance - Personal	157.70	73.0	-0.84	(-4.54, 2.86)	0.656	0.844
Hobby - Car/motorcycle/boat restoration - Personal	69.85	32.3	-0.76	(-4.20, 2.68)	0.665	0.844
Hobby - Car/motorcycle/boat restoration - Family Only	10.00	4.6	-1.56	(-9.12, 6.00)	0.686	0.844
Hobby - home remodeling, furniture refinishing - Personal	118.05	54.7	0.50	(-2.76, 3.77)	0.762	0.903
Non-work iron exposure	37.35	17.3	0.45	(-3.57, 4.46)	0.828	0.946
Non-work aluminum exposure	27.05	12.5	-0.34	(-4.90, 4.22)	0.883	0.957

Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	108.05	50.0	-0.18	(-3.40, 3.04)	0.914	0.957
Exercise - aerobics	9.40	4.4	0.30	(-8.77, 9.37)	0.949	0.957
Hobby - making stained glass, pottery, or ceramics - Personal	11.80	5.5	-0.19	(-7.28, 6.89)	0.957	0.957

**Supplementary Table S10. Age at onset stratified for females**

Models adjusted for education, onset segment, and family history of ALS. BH, Benjamini-Hochberg; CI, confidence interval; N, number.

<b>Description</b>	<b>N (Exposed)</b>	<b>% Exposed</b>	<b>Beta</b>	<b>95% CI</b>	<b>P- Value</b>	<b>Q-Value (BH)</b>
Exercise - swim	56.05	30.5	- 3.84	(-6.91, - 0.77)	0.014	0.446
Exercise - jog or run	32.10	17.4	- 3.61	(-7.47, - 0.24)	0.066	0.527
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	60.10	32.7	- 2.66	(-5.93, - 0.61)	0.111	0.629
Exercise - weightlifting	42.10	22.9	- 1.99	(-5.40, - 1.41)	0.251	0.992
Non-work lead exposure	8.00	4.3	- 3.84	(-10.67, - 2.98)	0.270	0.992
Hobby - photograph development - Family Only	9.30	5.1	3.28	(-3.50, - 10.06)	0.342	0.992
Non-work aluminum exposure	5.00	2.7	- 3.48	(-12.20, - 5.24)	0.434	0.992
Auto - repair and maintenance - Family Only	75.70	41.1	- 1.19	(-4.32, - 1.94)	0.457	0.992
Exercise - bike	82.05	44.6	0.96	(-1.92, - 3.84)	0.514	0.992
Hobby - Car/motorcycle/boat restoration - Family Only	33.60	18.3	- 1.09	(-4.95, - 2.77)	0.580	0.992
Non-work iron exposure	6.00	3.3	- 2.00	(-9.88, - 5.88)	0.619	0.992
Exercise - aerobics	39.60	21.5	0.68	(-2.86, - 4.23)	0.705	0.992
Hobby - home remodeling, furniture refinishing - Family Only	33.85	18.4	0.58	(-3.40, - 4.55)	0.776	0.992

Exercise - calisthenics	66.45	36.1	- 0.41	(-3.45, 2.62)	0.790	0.992
Hobby - wood working - Family Only	38.95	21.2	- 0.44	(-4.02, 3.13)	0.808	0.992
Non-work mercury exposure	7.00	3.8	- 0.71	(-8.07, 6.66)	0.851	0.992
Exercise - recreational dancing	49.30	26.8	0.15	(-3.09, 3.39)	0.928	0.992
Hobby - painting pictures or other fine arts - Family Only	12.35	6.7	- 0.24	(-6.34, 5.86)	0.939	0.992
Non-work exposure to welding fumes	4.00	2.2	0.15	(-9.55, 9.84)	0.976	0.992
Exercise - gardening or yard work	145.40	79.0	- 0.03	(-3.59, 3.53)	0.986	0.992
Exercise - golf	21.50	11.7	0.03	(-4.84, 4.90)	0.990	0.992
Hobby - metal working - Family Only	14.95	8.1	- 0.03	(-5.59, 5.53)	0.991	0.992
Hobby - making stained glass, pottery, or ceramics - Family Only	7.70	4.2	0.04	(-7.64, 7.72)	0.992	0.992
Hobby - wood working - Personal	17.80	9.7	- 5.03	(-10.43, 0.37)	0.068	0.527
Hobby - Car/motorcycle/boat restoration - Personal	2.80	1.5	- 1.82	(-14.72, 11.08)	0.782	0.992
Hobby - metal working - Personal	0.05	0.0	NA	(NA, NA)	NA	NA
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	11.90	6.5	- 2.94	(-9.17, 3.29)	0.355	0.992
Hobby - home remodeling, furniture refinishing - Personal	64.25	34.9	- 0.40	(-3.64, 2.83)	0.807	0.992
Hobby - making stained glass, pottery, or ceramics - Personal	30.90	16.8	0.36	(-3.68, 4.39)	0.862	0.992
Hobby - photograph development - Personal	6.50	3.5	- 3.29	(-11.52, 4.95)	0.434	0.992

Hobby - painting pictures or other fine arts - Personal	32.10	17.4	- 3.06	(-6.93, 0.82)	0.122	0.629
Auto - repair and maintenance - Personal	22.35	12.1	- 5.24	(-10.00, - 0.49)	0.031	0.474

**Supplementary Table S11. Avocational exposures risk model, complete case analysis**

Models adjusted for military service, age at symptom onset / survey consent, sex, and education. BH, Benjamini-Hochberg; CI, confidence interval; N, number; OR, odds ratio.

Description	N (Exposed)	% Exposed	OR	95% CI	P- Value	Q- Value (BH)
Exercise - golf	79	13.6	4.62	(2.39, 8.92)	0.000	0.000
Exercise - recreational dancing	106	15.8	2.01	(1.24, 3.26)	0.005	0.072
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	89	14.0	1.85	(1.17, 2.94)	0.009	0.076
Exercise - gardening or yard work	516	76.2	1.64	(1.11, 2.40)	0.012	0.076
Hobby - wood working - Personal	96	15.1	1.72	(1.13, 2.64)	0.012	0.076
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	42	6.6	1.86	(1.13, 3.07)	0.015	0.080
Hobby - wood working - Family Only	167	26.3	1.88	(1.06, 3.33)	0.032	0.144
Auto - repair and maintenance - Family Only	89	14.0	1.69	(1.01, 2.84)	0.047	0.186
Exercise - weightlifting	196	29.1	1.44	(1.00, 2.09)	0.052	0.186
Hobby - making stained glass, pottery, or ceramics - Family Only	96	15.1	2.35	(0.89, 6.24)	0.086	0.270
Exercise - swim	220	32.6	1.35	(0.95, 1.92)	0.097	0.270
Exercise - calisthenics	241	35.8	1.34	(0.94, 1.89)	0.101	0.270
Hobby - metal working - Family Only	268	42.5	0.55	(0.26, 1.16)	0.118	0.291
Exercise - jog or run	155	23.1	1.35	(0.91, 2.01)	0.139	0.291
Hobby - home remodeling, furniture refinishing - Family Only	280	44.5	1.55	(0.87, 2.76)	0.140	0.291
Hobby - home remodeling, furniture refinishing - Personal	167	26.3	1.31	(0.91, 1.87)	0.146	0.291
Auto - repair and maintenance - Personal	280	44.5	0.75	(0.48, 1.16)	0.196	0.369
Non-work iron exposure	59	8.7	1.45	(0.78, 2.71)	0.240	0.426
Non-work mercury exposure	37	5.5	1.48	(0.70, 3.10)	0.304	0.513
Non-work lead exposure	45	6.6	1.37	(0.70, 2.71)	0.358	0.564
Exercise - bike	326	48.3	1.16	(0.84, 1.62)	0.370	0.564

Hobby - painting pictures or other fine arts - Family Only	67	10.6	1.32	(0.67, 2.61)	0.426	0.620
Hobby - metal working - Personal	67	10.6	1.20	(0.65, 2.20)	0.562	0.750
Hobby - painting pictures or other fine arts - Personal	42	6.6	0.87	(0.53, 1.41)	0.562	0.750
Hobby - photograph development - Personal	268	42.5	1.20	(0.61, 2.35)	0.599	0.754
Non-work aluminum exposure	44	6.5	1.20	(0.60, 2.41)	0.612	0.754
Hobby - Car/motorcycle/boat restoration - Family Only	59	9.3	1.15	(0.64, 2.06)	0.646	0.766
Hobby - making stained glass, pottery, or ceramics - Personal	59	9.3	0.89	(0.51, 1.55)	0.677	0.774
Non-work exposure to welding fumes	58	8.6	1.10	(0.59, 2.06)	0.755	0.833
Hobby - photograph development - Family Only	146	23.0	0.88	(0.36, 2.16)	0.783	0.835
Exercise - aerobics	87	12.9	0.96	(0.58, 1.58)	0.876	0.904
Hobby - Car/motorcycle/boat restoration - Personal	146	23.0	0.99	(0.60, 1.63)	0.954	0.954

**Supplementary Table S12. Avocational exposures risk model, stratified for males**

Models adjusted for military service, age at symptom onset / survey consent, and education. BH, Benjamini-Hochberg; CI, confidence interval; N, number; OR, odds ratio.

<b>Description</b>	<b>N (Exposed)</b>	<b>% Exposed</b>	<b>OR</b>	<b>95% CI</b>	<b>P- Value</b>	<b>Q- Value (BH)</b>
Exercise - golf	58	21.6	4.49	(2.06, 9.77)	0.000	0.005
Exercise - swim	108	31.7	2.59	(1.52, 4.41)	0.000	0.008
Hobby - wood working - Personal	88	28.0	2.29	(1.37, 3.84)	0.002	0.017
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	33	10.4	2.21	(1.31, 3.73)	0.003	0.024
Exercise - gardening or yard work	262	76.4	2.04	(1.18, 3.50)	0.010	0.064
Hobby - metal working - Personal	15	4.8	2.45	(1.17, 5.13)	0.017	0.090
Hobby - home remodeling, furniture refinishing - Personal	134	42.7	1.76	(1.06, 2.91)	0.028	0.128
Exercise - recreational dancing	37	10.9	2.23	(0.98, 5.08)	0.057	0.229
Exercise - weightlifting	119	34.8	1.50	(0.91, 2.49)	0.111	0.380
Hobby - making stained glass, pottery, or ceramics - Family Only	88	28.0	2.90	(0.76, 11.07)	0.119	0.380
Hobby - photograph development - Family Only	126	40.1	0.38	(0.10, 1.49)	0.164	0.406
Hobby - photograph development - Personal	153	49.4	1.96	(0.76, 5.06)	0.164	0.406
Hobby - painting pictures or other fine arts - Personal	24	7.6	0.58	(0.27, 1.26)	0.167	0.406

Non-work iron exposure	47	13.8	1.65	(0.80, 3.41)	0.178	0.406
Exercise - calisthenics	120	35.0	1.36	(0.84, 2.22)	0.213	0.455
Non-work mercury exposure	24	7.0	1.84	(0.68, 4.96)	0.230	0.461
Non-work exposure to welding fumes	47	14.0	1.56	(0.73, 3.30)	0.250	0.471
Exercise - jog or run	96	28.2	1.34	(0.79, 2.27)	0.270	0.480
Non-work lead exposure	30	8.8	1.60	(0.67, 3.85)	0.294	0.495
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	24	7.6	1.66	(0.62, 4.44)	0.311	0.498
Hobby - home remodeling, furniture refinishing - Family Only	235	73.4	1.63	(0.60, 4.44)	0.335	0.511
Hobby - making stained glass, pottery, or ceramics - Personal	49	15.6	0.65	(0.21, 2.00)	0.457	0.630
Auto - repair and maintenance - Personal	235	73.4	0.81	(0.46, 1.41)	0.457	0.630
Exercise - aerobics	14	4.1	0.67	(0.22, 2.05)	0.479	0.630
Exercise - bike	177	51.8	1.18	(0.74, 1.87)	0.492	0.630
Hobby - wood working - Family Only	134	42.7	1.43	(0.45, 4.59)	0.546	0.672
Hobby - metal working - Family Only	153	49.4	0.70	(0.18, 2.68)	0.601	0.693
Hobby - Car/motorcycle/boat restoration - Personal	126	40.1	1.15	(0.67, 1.98)	0.606	0.693
Hobby - Car/motorcycle/boat restoration - Family Only	49	15.6	1.42	(0.34, 5.83)	0.630	0.695

Non-work aluminum exposure	36	10.6	1.19	(0.55, 2.60)	0.661	0.705
Hobby - painting pictures or other fine arts - Family Only	15	4.8	1.18	(0.51, 2.73)	0.697	0.719
Auto - repair and maintenance - Family Only	33	10.4	2956157.26	(0.00, Inf)	0.979	0.979

**Supplementary Table S13. Complete case analysis of avocational exposures risk model, stratified for females**

Models adjusted for age at symptom onset / survey consent and education. BH, Benjamini-Hochberg; CI, confidence interval; N, number; OR, odds ratio.

Description	N (Exposed)	% Exposed	OR	95% CI	P-Value	Q-Value (BH)
Exercise - golf	21	6.8	5.52	(1.54, 19.76)	0.009	0.276
Hobby - hunting, guns, shooting skeet, trap, or targets - Family Only	18	5.7	1.90	(1.04, 3.45)	0.036	0.398
Hobby - wood working - Family Only	33	10.3	1.95	(1.00, 3.81)	0.051	0.398
Exercise - recreational dancing	69	20.8	1.76	(0.97, 3.20)	0.063	0.398
Hobby - Car/motorcycle/boat restoration - Personal	20	6.2	0.19	(0.03, 1.18)	0.075	0.398
Hobby - metal working - Family Only	115	35.9	0.43	(0.17, 1.09)	0.075	0.398
Auto - repair and maintenance - Family Only	56	17.6	1.54	(0.89, 2.66)	0.120	0.548
Exercise - gardening or yard work	254	76.0	1.38	(0.79, 2.39)	0.254	0.704
Exercise - calisthenics	121	36.6	1.34	(0.81, 2.20)	0.256	0.704
Exercise - weightlifting	77	23.2	1.38	(0.79, 2.40)	0.262	0.704
Hobby - photograph development - Personal	115	35.9	0.55	(0.19, 1.61)	0.278	0.704
Exercise - jog or run	59	17.8	1.40	(0.76, 2.60)	0.281	0.704
Non-work exposure to welding fumes	11	3.3	0.49	(0.13, 1.85)	0.295	0.704
Auto - repair and maintenance - Personal	45	14.6	0.69	(0.33, 1.45)	0.322	0.704
Exercise - swim	112	33.6	0.78	(0.48, 1.28)	0.330	0.704
Hobby - making stained glass, pottery, or ceramics - Family Only	8	2.5	1.83	(0.43, 7.75)	0.413	0.744
Hobby - home remodeling, furniture refinishing - Family Only	45	14.6	1.35	(0.65, 2.79)	0.417	0.744
Hobby - photograph development - Family Only	20	6.2	1.67	(0.48, 5.75)	0.418	0.744
Hobby - painting pictures or other fine arts - Family Only	52	16.5	1.52	(0.46, 5.01)	0.493	0.830
Exercise - bike	149	44.7	1.16	(0.72, 1.87)	0.536	0.858

Hobby - painting pictures or other fine arts - Personal	18	5.7	1.14	(0.61, 2.13)	0.684	0.996
Non-work aluminum exposure	8	2.4	1.38	(0.29, 6.65)	0.690	0.996
Non-work lead exposure	15	4.5	1.13	(0.37, 3.43)	0.828	0.996
Hobby - wood working - Personal	8	2.5	0.92	(0.41, 2.04)	0.829	0.996
Hobby - Car/motorcycle/boat restoration - Family Only	10	3.1	1.07	(0.56, 2.07)	0.831	0.996
Hobby - home remodeling, furniture refinishing - Personal	33	10.3	0.95	(0.56, 1.60)	0.848	0.996
Exercise - aerobics	73	21.9	1.05	(0.60, 1.85)	0.863	0.996
Non-work mercury exposure	13	3.9	1.05	(0.33, 3.34)	0.933	0.996
Hobby - making stained glass, pottery, or ceramics - Personal	10	3.1	0.98	(0.51, 1.88)	0.951	0.996
Non-work iron exposure	12	3.6	1.03	(0.28, 3.79)	0.963	0.996
Hobby - metal working - Personal	52	16.5	0.00	(0.00, Inf)	0.979	0.996
Hobby - hunting, guns, shooting skeet, trap, or targets - Personal	56	17.6	1.00	(0.36, 2.75)	0.996	0.996