

**Supplementary Table 3. Results of all association tests**

	<b>Morphometry</b>										<b>Question<sup>1</sup></b>
<b>Height</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint <sup>2</sup>	<b>1</b>
Zhigh	0.4624	0.5010	0.2844	0.8948	0.0455	0.0760	0.1697	0.4281	0.0089	0.0494	
Zlow	5.4E-5	0.3905	0.0516	0.4280	0.0208	0.0327	0.007	0.0265	0.3581	<b>3.5E-7</b>	
<b>Weight</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>2</b>
Zhigh	0.0821	0.8315	0.5763	0.5365	0.9433	0.6018	0.1688	0.2810	2.2E-5	0.0084	
Zlow	4.8E-5	0.9017	0.5175	0.4896	0.4642	0.9001	0.2107	0.3196	0.0003	<b>0.0005</b>	
<b>BMI</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>1,2</b>
Zhigh	0.0319	0.8861	0.1931	0.3441	0.7180	0.0846	0.4839	0.0817	7.7E-7	<b>0.0004</b>	
Zlow	6.3E-8	0.8791	0.0675	0.8270	0.3435	0.1227	0.8590	0.0751	4.0E-5	<b>2.7E-7</b>	
<b>Left/right handed</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>3</b>
Zhigh	0.5837	0.7314	0.1927	0.3452	0.2089	0.4132	0.3177	0.5197	0.7465	0.2692	
Zlow	0.0912	0.3095	0.9324	0.7992	0.0132 <sup>s</sup>	0.4792	0.0076 <sup>s</sup>	0.7058	0.8701	0.1304	
<b>Sunburn sensitivity</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>4</b>
Zhigh	0.9064	0.3769	0.0732	0.1793	0.0991	0.1611	0.4849	0.1716	0.0004	0.0077	
Zlow	0.7218	0.3694	0.3630	0.2101	0.1853	0.9163	0.8805	0.6511	0.0052	0.1038	
<b>Eye color</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>5</b>
Zhigh	0.4372	0.4223	0.4113	0.7420	0.5270	0.5093	0.5058	0.4827	0.1083	0.5565	
Zlow	0.3422	0.6258	0.7240	0.8692	0.5817	0.1373	0.5430	0.1055	0.4138	0.6149	
	<b>Medical risk factors</b>										
<b>Allergy</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>6</b>
Zhigh	0.3505	0.0597	0.4556	0.9352	0.9082	0.3112	0.2567	0.1522	0.7111	0.9438	
Zlow	0.0699	0.0753	0.4472	0.0606	0.9867	0.5372	0.4850	0.5058	0.0687	0.7349	

**Supplementary Table 3 (cont'd)**

	<b>Medical risk factors (cont'd)</b>										<b>Question<sup>1</sup></b>
<b>Coronary heart disease</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint <sup>2</sup>	<b>7.8</b>
Zhigh	-	0.0787	-	-	-	-	-	-	-	0.0264	
Zlow	-	0.6982	-	-	-	-	-	-	-	0.9727	
<b>Heart attack</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>9</b>
Zhigh	0.8933	0.3142	0.7128	-	-	0.1212	-	-	-	0.0524	
Zlow	0.9721	0.2293	0.0195	-	-	0.0271	-	-	-	0.0021	
<b>Heart catheterization</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>10</b>
Zhigh	0.5168	0.6454	0.2979	0.4639	-	0.6515	-	-	0.7818	0.5379	
Zlow	0.4052	0.5265	0.4437	0.4528	-	0.4430	-	-	0.7227	0.4482	
<b>Heart surgery</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>11</b>
Zhigh	0.3848	-	-	-	-	-	-	-	-	0.1952	
Zlow	0.4566	-	-	-	-	-	-	-	-	0.2060	
<b>Total CVD</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>7,8,12,13</b>
Zhigh	0.5259	0.8246	-	-	-	-	-	-	-	0.6239	
Zlow	0.6986	0.4441	-	-	-	-	-	-	-	0.0771	
<b>CVD event</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>7-9,12,13</b>
Zhigh	0.6262	0.4341	0.9193	-	0.0857	0.1327	-	-	-	0.0987	
Zlow	0.7298	0.7987	0.0214	-	0.0137	0.0483	-	-	-	<b>0.0003</b>	
<b>Diabetes</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>14</b>
Zhigh	0.9940	0.1046	0.9439	0.3465	-	0.4845	0.6365	-	0.3016	0.0636	
Zlow	0.0313	0.1105	0.6107	0.9863	-	0.7687	0.5548	-	0.1454	0.0010	



**Supplementary Table 3 (cont'd)**

	<b>Medicine (cont'd)</b>										<b>Question<sup>1</sup></b>
<b>Painkillers</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint <sup>2</sup>	<b>22</b>
Zhigh	0.2691	0.9776	0.1510	0.6005	0.2168	0.7575	0.5895	0.2502	0.1418	0.4230	
Zlow	0.0190	0.4634	0.4433	0.7703	0.3986	0.7040	0.5591	0.0752	0.0249	0.0683	
<b>Noise</b>											
<b>Gunfire noise</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>23-33</b>
Zhigh_prot	0.0156	0.1379	0.7716	0.5042	0.2392	0.0893	0.1604	0.2456	0.1865	0.6204	
Zhigh_unpr	0.4861	0.3421	0.1859	0.0032	0.0752	0.5307	0.6909	0.2780	0.6289	0.0094	
Zlow_prot	0.1472	0.2203	0.7597	0.3713	0.4566	0.7133	0.3632	0.7517	0.7781	0.5638	
Zlow_unpr	0.0817	0.1305	0.1127	0.0596	0.6350	0.8768	0.0512 <sup>s</sup>	0.0167 <sup>s</sup>	0.5700	0.7253	
<b>Occupational noise exposure</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>34</b>
Zhigh	0.1421	0.0120	0.0005	0.0157	3E-5	0.0002	0.0105	0.0023	0.0014	<b>1.0E-17</b>	
Zlow	0.3961	0.0072	0.0117	0.7178	0.0130	0.1249	0.1888	0.0190	0.0415	<b>1.0E-9</b>	
<b>Years noise exposure</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>35</b>
Zhigh	0.0933	0.0228	0.0068	0.1280	0.0003	0.0005	0.0024	0.0018	0.0054	<b>1.0E-17</b>	
Zlow	0.5693	0.0701	0.1416	0.4109	0.0573	0.1665	0.1536	0.0256	0.0640	<b>1.1E-7</b>	
<b>Total noise exposure</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>35-36</b>
Zhigh	0.0280	0.0542	0.0014	0.1512	4.8E-5	0.0003	0.0016	0.0054	0.0019	<b>1.0E-17</b>	
Zlow	0.9354	0.1264	0.0914	0.4656	0.0362	0.1648	0.0745	0.0704	0.0349	<b>1.8E-7</b>	
<b>Ear protection</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>38</b>
Zhigh	0.3151	0.6796	-	-	-	0.0205	-	-	-	0.0407	
Zlow	0.3585	0.9326	-	-	-	0.6145	-	-	-	0.061	

**Supplementary Table 3 (cont'd)**

	<b>Solvents</b>										<b>Question<sup>1</sup></b>
<b>Solvent exposure</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint <sup>2</sup>	<b>39-40</b>
Zhigh	0.5749	0.3121	0.3154	0.3108	0.9981	0.0697	0.4673	0.1491	0.0763	0.0013	
Zlow	0.0684	0.7310	0.5863	0.5646	0.7021	0.1129	0.7813	0.8647	0.8140	0.7663	
<b>Total solvent exposure</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>39-42</b>
Zhigh	0.2632	0.4164	0.7814	0.7209	0.4063	0.1683	0.9496	0.1869	0.2773	0.0947	
Zlow	0.2780	0.5177	0.7591	0.9524	0.5827	0.0346	0.3910	0.6191	0.5183	0.8752	
<b>Solvent*Noise interaction</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>34,39</b>
Zhigh	0.4742	0.4507	0.3812	0.3147	0.9344	0.3586	0.8783	0.6512	0.0560	0.4037	
Zlow	0.0997	0.9991	0.1361	0.5520	0.8267	0.2931	0.3711	0.6074	0.1732	0.2947	
	<b>Smoking</b>										
<b>Current or former smoking</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>43</b>
Zhigh	0.3259	0.0139	0.9225	0.0123	0.1434	0.0366	0.3641	0.7588	0.9730	0.0009	
Zlow	0.0249	0.0628	0.7194	0.7151	0.3982	0.6181	0.2493	0.2952	0.4497	0.0808	
<b>Smoking history (packyears)</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>43-46</b>
Zhigh	0.0536	0.0015	0.0193	0.0062	0.0200	0.0002	0.9880	0.7983	0.2672	<b>1.0E-9</b>	
Zlow	0.0954	0.0311	0.1144	0.3300	0.1732	0.2986	0.4111	0.8060	0.8990	<b>0.0004</b>	
<b>Smoking_by sex (high)</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>43-46</b>
male	0.1010	0.0263	0.0155	0.0829	0.0361	0.0004	0.7013	0.6971	0.1900	<b>1.9E-7</b>	
fem	0.3247	0.0177	0.2218	0.0189	0.2765	0.2174	0.1619	0.9297	0.9496	<b>0.0006</b>	
<b>Smoking_by sex (low)</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>43-46</b>
male	0.5641	0.077	0.2229	0.3604	0.033	0.1116	0.5577	0.6261	0.6407	0.0017	
fem	0.048	0.1263	0.1631	0.7079	0.7339	0.9708	0.1035	0.2943	0.4493	0.0698	

**Supplementary table 3 (cont'd)**

	<b>Smoking (cont'd)</b>										<b>Question<sup>1</sup></b>
<b>Smoking dosage effect in smokers</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint <sup>2</sup>	<b>43-46</b>
Zhigh	0.0913	0.0449	0.0017	0.1099	0.1437	0.0066	0.1714	0.4001	0.2441	<b>3.0E-7</b>	
Zlow	0.9702	0.2185	0.0807	0.0842	0.4103	0.2385	0.8312	0.4683	0.5390	0.005	
<b>Smoking*noise interaction</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>34,43</b>
Zhigh	0.5376	0.8083	0.2135	0.9108	0.2926	0.8756	0.1610	0.7295	0.9769	0.5666	
Zlow	0.2140	0.4545	0.3204	0.4415	0.7781	0.9497	0.0397	0.2539	0.4740	0.6461	
	<b>Alcohol consumption</b>										
<b>Regular alcohol consumption</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>47</b>
Zhigh	0.0559	0.7661	0.0128	0.1611	0.0024	0.0500	0.2572	0.7264	0.0999	<b>8.4E-6</b>	
Zlow	0.1314	0.2191	0.1085	0.0161	0.002	0.4782	0.2806	0.7907	0.0059	<b>5.2E-6</b>	
<b>Amount of alcohol</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>48</b>
Zhigh	0.1876	0.2310	0.8474	0.0949	0.0152	0.0988	0.3470	0.8367	0.1832	0.0016	
Zlow	0.1075	0.0458	0.8887	0.011	0.0597	0.6347	0.7217	0.5830	0.0347	0.0025	

Multivariable analysis <sup>3</sup>											Question <sup>1</sup>
<b>Smoking (packyears), BMI, CVDevent</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	Joint <sup>2</sup>	<b>1,2</b>
Zhigh CVDevent	0.8014	0.4922	0.6533	0.2945	0.2824	0.1706	0.5876	0.2914	0.0401	0.0929	<b>43-46</b>
Packyears	0.0334	0.0029	0.0145	0.0131	0.0589	0.0006	0.9964	0.9632	0.4950	<b>2.4E-8</b>	<b>7-9,12,13</b>
BMI	0.1012	0.2865	0.2882	0.2399	0.8523	0.1085	0.5381	0.0834	1.2e-6	<b>0.0004</b>	
Zlow CVDevent	0.5509	0.7203	0.0392	0.8200	0.1328	0.0515	0.3503	0.3431	0.0011	0.0015	
Packyears	0.1312	0.0745	0.2010	0.3131	0.6050	0.4881	0.5368	0.6882	0.4166	0.0084	
BMI	8.5e-7	0.4874	0.2138	0.8803	0.5731	0.0920	0.8083	0.1021	0.0001	<b>4.8E-7</b>	
<b>Occupational and gunfire noise</b>	AN	CA	CO	GE	NY	OU	PA	TA	TU	joint	<b>23-33</b>
Zhigh Occupational noise exposure	0.4683	0.0048	0.0002	0.0317	0.0002	0.0004	0.0038	0.0009	0.0046	<b>1.0E-17</b>	<b>34</b>
Gunfire protected	0.0177	0.1374	0.4943	0.5449	0.5246	0.1276	0.0986	0.3995	0.1030	0.6267	
Gunfire unprotected	0.5980	0.2025	0.1797	0.0043	0.1942	0.4295	0.5701	0.3182	0.4917	0.0354	
Zlow Occupational noise exposure	0.0663	0.0005	0.0892	0.7187	0.0167	0.0595	0.0230	0.0454	0.0019	<b>1.4E-7</b>	
Gunfire protected	0.1238	0.2265	0.8041	0.4461	0.5874	0.8429	0.2876	0.9888	0.8229	0.5736	
Gunfire unprotected	0.1178	0.0647	0.1243	0.0507	0.7289	0.9779	0.0168 <sup>§</sup>	0.0163 <sup>§</sup>	0.4884	0.8844	

<sup>1</sup> Exact questions are provided in Supplementary table 4.

<sup>2</sup> P-values in bold remain significant after Bonferroni correction for 74 tests (p<0.00067).

<sup>3</sup> Significance of the regression coefficient in multivariable model, type 3 sum-of-squares.

<sup>§</sup> Associations go in opposite directions.