

**Associations of Coffee, Diet Drinks, and Non-Nutritive Sweetener Use with
Depression among Populations in Eastern Canada**

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Supplemental Table 1. Characteristics of participants according to total coffee consumption*

Characteristics	Total coffee consumption, cups/day			P value
	Never (n = 7081)	> 0-< 4 (n = 10052)	≥ 4 (n = 1705)	
Age, yr	52.8 (9.1)	52.9 (9.0)	52.8 (8.7)	0.75
Sex, n (%)				
Men	1838 (26.0)	3196 (31.8)	820 (48.1)	<0.001
Women	5243 (74.0)	6856 (68.2)	885 (51.9)	
NNS in coffee or tea, n (%)				
Never	6594 (93.1)	8441 (84.0)	1466 (86.0)	<0.001
Some-times	150 (2.1)	538 (5.4)	69 (4.1)	
Always	337 (4.8)	1073 (10.7)	170 (10.0)	
Diet drinks, n (%)				
Never	4677 (66.1)	5827 (58.0)	993 (58.2)	<0.001
< 1 time/week	1341 (18.9)	2647 (26.3)	438 (25.7)	
1-6 times/week	594 (8.4)	1150 (11.4)	184 (10.8)	
≥ 1 times/day	469 (6.6)	428 (4.3)	90 (5.3)	
NNS in coffee, tea, or drinks, n (%)				
Never	4468 (63.1)	5146 (51.2)	879 (51.6)	<0.001
Either	2335 (33.0)	3976 (39.6)	701 (41.1)	
Both	278 (3.9)	930 (9.3)	125 (7.3)	
Major depression[†], n (%)	1248 (17.6)	1619 (16.1)	350 (20.5)	<0.001
Province of residence, n (%)				
Nova Scotia	4706 (66.5)	6030 (60.0)	1009 (59.2)	<0.001
New Brunswick	1368 (19.3)	2642 (26.3)	433 (25.4)	
Newfoundland and Labrador	894 (12.6)	1176 (11.7)	226 (13.3)	
Prince Edward Island	113 (1.6)	204 (2.0)	37 (2.2)	
Ethnicity, n (%)				
White	5518 (77.9)	8836 (87.9)	1504 (88.2)	<0.001
Non-white	354 (5.0)	585 (5.8)	103 (6.0)	
DNK/PNA	1209 (17.1)	631 (6.3)	98 (5.8)	
Education, n (%)				
Less than high school	1227 (17.3)	1813 (18.0)	352 (20.7)	<0.001
College level	2594 (36.6)	4006 (39.9)	686 (40.2)	
University level or higher	2430 (34.3)	4199 (41.8)	657 (38.5)	
DNK/PNA	830 (11.7)	34 (0.3)	10 (0.6)	
Smoking status, n (%)				
Never smoker	3816 (53.9)	4718 (46.9)	592 (34.7)	

Former smoker	1999	(28.2)	4296	(42.7)	750	(44.0)	<0.001
Current smoker	403	(5.7)	967	(9.6)	353	(20.7)	
DNK/PNA	863	(12.2)	71	(0.7)	10	(0.6)	
Alcohol use, n (%)							
Abstainer	1039	(14.7)	727	(7.2)	175	(10.3)	
Occasional drinker	3068	(43.3)	3695	(36.8)	658	(38.6)	
Regular drinker	1546	(21.8)	3589	(35.7)	525	(30.8)	<0.001
Habitual drinker	584	(8.3)	1989	(19.8)	335	(19.7)	
DNK/PNA	844	(11.9)	52	(0.5)	12	(0.7)	
Cardiovascular disease[‡], n (%)	235	(3.3)	286	(2.9)	65	(3.8)	0.046
Diabetes mellitus[§], n (%)	600	(8.5)	697	(6.9)	132	(7.7)	<0.001
Body mass index, kg/m²	28.5	(6.0)	28.2	(5.3)	29.0	(5.5)	<0.001
Total physical activity, MET-min/week	2079	(792, 4638)	2220	(904, 4843)	2656	(960, 5838)	<0.001
Healthy eating index	34.3	(14.9)	40.0	(7.9)	38.9	(8.2)	<0.001

DNK/PNA = do not know/prefer not to answer; NNS = non-nutritive sweetener.

*Data are means (standard deviation), number of participants (percentage), or median (interquartile range). Percentages may not total 100 due to rounding. The numbers of participants vary slightly among different variables.

†Defined as a PHQ-9 score ≥ 10 and/or current use of antidepressant.

‡Self-reported coronary heart disease and/or stroke.

§Self-reported diabetes mellitus.

Supplemental Table 2. Characteristics of participants according to non-nutritive sweeteners use*

Characteristics	NNS use			P value
	Never (n = 10493)	Either (n = 7012)	Both (n = 1333)	
Age, yr	53.0 (9.1)	52.9 (8.9)	52.1 (9.2)	0.002
Sex, n (%)				
Men	3416 (32.6)	2072 (29.6)	366 (27.5)	<0.001
Women	7077 (67.4)	4940 (70.5)	967 (72.5)	
Regular coffee, n (%)				
Never	4963 (47.3)	2797 (39.9)	400 (30.0)	<0.001
> 0- < 4 cups/day	4776 (45.5)	3629 (51.8)	835 (62.6)	
≥ 4 cups/day	754 (7.2)	586 (8.4)	98 (7.4)	
Decaffeinated coffee, n (%)				
Never	9639 (91.9)	6213 (88.6)	1152 (86.4)	<0.001
> 0- < 2 cups/day	524 (5.0)	473 (6.8)	100 (7.5)	
≥ 2 cups/day	330 (3.1)	326 (4.7)	81 (6.1)	
Total coffee, n (%)				
Never	4468 (42.6)	2335 (33.3)	278 (20.9)	<0.001
> 0- < 4 cups/day	5146 (49.0)	3976 (56.7)	930 (69.8)	
≥ 4 cups/day	879 (8.4)	701 (10.0)	125 (9.4)	
Major depression[†], n (%)	1633 (15.6)	1271 (18.1)	313 (23.5)	<0.001
Province of residence, n (%)				
Nova Scotia	6546 (62.4)	4400 (62.8)	799 (59.9)	<0.001
New Brunswick	2586 (24.7)	1578 (22.5)	279 (20.9)	
Newfoundland and Labrador	1150 (11.0)	904 (12.9)	242 (18.2)	
Prince Edward Island	211 (2.0)	130 (1.9)	13 (1.0)	
Ethnicity, n (%)				
White	8513 (81.1)	6199 (88.4)	1146 (86.0)	<0.001
Non-white	554 (5.3)	392 (5.6)	96 (7.2)	
DNK/PNA	1426 (13.6)	421 (6.0)	91 (6.8)	
Education, n (%)				
Less than high school	1830 (17.4)	1287 (18.4)	275 (20.6)	<0.001
College level	3847 (36.7)	2849 (40.6)	590 (44.3)	
University level or higher	3973 (37.9)	2851 (40.7)	462 (34.7)	
DNK/PNA	843 (8.0)	25 (0.4)	6 (0.5)	
Smoking status, n (%)				
Never smoker	5041 (48.0)	3516 (50.1)	569 (42.7)	<0.001
Former smoker	3632 (34.6)	2815 (40.2)	598 (44.9)	

Current smoker	940	(9.0)	630	(9.0)	153	(11.5)	
DNK/PNA	880	(8.4)	51	(0.7)	13	(1.0)	
Alcohol use, n (%)							
Abstainer	1073	(10.2)	726	(10.4)	142	(10.7)	
Occasional drinker	3806	(36.3)	2966	(42.3)	649	(48.7)	
Regular drinker	2975	(28.4)	2296	(32.7)	389	(29.2)	<0.001
Habitual drinker	1780	(17.0)	984	(14.0)	144	(10.8)	
DNK/PNA	859	(8.2)	40	(0.6)	9	(0.7)	
Cardiovascular disease[‡], n (%)	299	(2.9)	233	(3.3)	54	(4.1)	0.026
Diabetes mellitus[§], n (%)	569	(5.4)	640	(9.1)	220	(16.5)	<0.001
Body mass index, kg/m²	27.6	(5.3)	29.2	(5.7)	30.3	(6.1)	<0.001
Total physical activity, MET-min/week	2239	(891, 4989)	2151	(843, 4579)	2306	(815, 5357)	0.002
Healthy eating index	36.2	(13.4)	39.6	(7.9)	39.8	(7.9)	<0.001

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[†]Defined as a PHQ-9 score ≥ 10 and/or current use of antidepressant.

[‡]Self-reported coronary heart disease and/or stroke.

[§]Self-reported diabetes mellitus.

^{||}Either added non-nutritive sweetener in coffee or tea or drank diet drinks.

[¶]Both added non-nutritive sweetener in coffee or tea and drank diet drinks.