

S4 Table. Unadjusted Daily Nutrient Intakes for Canadian Children and Adults Stratified by Whole Grain Food Intake.

| | No Whole Grain Food Intake (No-WG) ^a | | Low Whole Grain Food Intake (Low-WG) ^a | | Mid-Whole Grain Food Intake (Mid-WG) ^a | | High-Whole Grain Food Intake (High-WG) ^a | | p value for linear trend ^b | |
|------------------------------|---|-------------------|---|-------------------|---|-------------------|---|-------------------|---------------------------------------|---------|
| | Children n=3,305 | Adults n=7,578 | Children n=1,077 | Adults n=2,044 | Children n=1,085 | Adults n=2,156 | Children n=1,101 | Adults n=2,141 | Children | Adults |
| Energy, kcal | 1809 ± 23 | 1878 ± 30 | 1604 ± 39 | 1749 ± 35 | 1772 ± 46 | 1896 ± 37 | 2006 ± 49 | 1978 ± 38 | 0.0004 | 0.2 |
| Carbohydrates, g | 239.0 ± 3.3 | 217.8 ± 2.4 | 212.9 ± 5.2 | 209.1 ± 3.6 | 241.7 ± 6.7 | 224.6 ± 5.7 | 273.7 ± 5.9 | 252.7 ± 6.2 | <0.0001 | 0.0002 |
| Carbohydrates, % of energy | 52.7 ± 0.4 | 46.8 ± 0.6 | 53.1 ± 0.5 | 47.6 ± 1.0 | 54.2 ± 0.5 | 47.7 ± 0.7 | 54.8 ± 0.4 | 51.4 ± 0.8 | <0.0001 | <0.0001 |
| Total sugar, g | 106.8 ± 2.3 | 87.1 ± 1.3 | 99.4 ± 2.7 | 85.4 ± 2.1 | 108.9 ± 3.7 | 85.8 ± 3.3 | 112.6 ± 3.2 | 89.3 ± 2.9 | 0.1 | 0.7 |
| Fiber, g | 13.3 ± 0.2 | 14.7 ± 0.2 | 12.9 ± 0.3 | 17.4 ± 0.7 | 16.2 ± 0.4 | 19.2 ± 0.3 | 21.2 ± 0.4 | 24.8 ± 1.2 | <0.0001 | <0.0001 |
| Total fat, g | 65.5 ± 1.0 | 70.9 ± 1.7 | 56.9 ± 1.8 | 64.6 ± 1.8 | 62.0 ± 1.9 | 71.8 ± 1.8 | 68.6 ± 2.2 | 69.2 ± 1.7 | 0.6 | 0.6 |
| Total fat, % of energy | 31.6 ± 0.3 | 32.6 ± 0.4 | 31.0 ± 0.4 | 32.1 ± 0.7 | 30.5 ± 0.5 | 32.4 ± 0.5 | 29.3 ± 0.4 | 29.9 ± 0.6 | <0.0001 | <0.0001 |
| Saturated fat, g | 23.5 ± 0.5 | 23.3 ± 0.8 | 21.1 ± 0.7 | 21.0 ± 0.5 | 22.0 ± 0.8 | 23.1 ± 0.6 | 24.3 ± 0.8 | 21.9 ± 0.6 | 0.9 | 0.3 |
| Protein, g | 70.5 ± 1.2 | 79.2 ± 1.0 | 64.6 ± 2.3 | 75.3 ± 2.2 | 67.6 ± 2.3 | 80.5 ± 1.9 | 79.7 ± 2.6 | 83.2 ± 1.8 | 0.007 | 0.07 |
| Protein, % of energy | 15.6 ± 0.2 | 17.0 ± 0.2 | 15.9 ± 0.4 | 17.3 ± 0.2 | 15.3 ± 0.3 | 17.0 ± 0.2 | 15.8 ± 0.2 | 16.8 ± 0.2 | 1.0 | 0.6 |
| Vitamin B ₁₂ , µg | 4.0 ± 0.2 | 4.1 ± 0.2 | 3.7 ± 0.1 | 4.3 ± 0.5 | 3.6 ± 0.2 | 4.0 ± 0.2 | 4.0 ± 0.2 | 3.8 ± 0.4 | 0.5 | 0.6 |
| Vitamin B ₆ , µg | 1.4 ± 0.0 | 1.6 ± 0.0 | 1.3 ± 0.1 | 1.6 ± 0.0 | 1.4 ± 0.1 | 1.7 ± 0.0 | 1.7 ± 0.1 | 1.9 ± 0.1 | <0.0001 | 0.003 |
| Vitamin C, mg | 114.5 ± 3.8 | 94.6 ± 2.6 | 108.1 ± 5.9 | 95.6 ± 3.4 | 114.8 ± 10.7 | 104.3 ± 4.2 | 116.4 ± 4.8 | 106.8 ± 4.4 | 0.8 | 0.02 |
| Folate, µg | 443.3 ± 9.5 | 454.6 ± 7.5 | 391.9 ± 18.4 | 416.3 ± 10.3 | 386.8 ± 13.2 | 421.3 ± 10.1 | 431.4 ± 14.4 | 434.0 ± 14.1 | 0.06 | 0.01 |
| Folic acid, µg | 140.6 ± 3.8 | 124.6 ± 2.4 | 126.0 ± 8.4 | 103.8 ± 3.4 | 111.6 ± 4.9 | 96.4 ± 4.2 | 120.8 ± 6.3 | 86.4 ± 3.7 | 0.0001 | <0.0001 |

| | | | | | | | | | | |
|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|---------|---------|
| Vitamin D, μg | 5.3 \pm 0.2 | 4.5 \pm 0.2 | 6.0 \pm 0.3 | 4.8 \pm 0.3 | 5.6 \pm 0.2 | 5.1 \pm 0.2 | 6.1 \pm 0.3 | 5.1 \pm 0.3 | 0.02 | 0.02 |
| Niacin, mg | 33.5 \pm 0.6 | 39.3 \pm 0.5 | 29.6 \pm 1.2 | 37.0 \pm 1.1 | 31.3 \pm 1.2 | 39.6 \pm 1.3 | 37.8 \pm 1.4 | 40.6 \pm 1.1 | 0.02 | 0.4 |
| Vitamin A, μg RAE | 600.9 \pm 21.6 | 620.0 \pm 35.7 | 613.7 \pm 29.9 | 697.0 \pm 48.4 | 592.5 \pm 21.1 | 694.4 \pm 24.8 | 627.3 \pm 37.2 | 690.1 \pm 26.3 | 0.6 | 0.2 |
| Riboflavin, mg | 1.8 \pm 0.0 | 1.9 \pm 0.0 | 1.8 \pm 0.0 | 1.9 \pm 0.1 | 1.8 \pm 0.1 | 1.9 \pm 0.0 | 1.9 \pm 0.1 | 2.0 \pm 0.0 | 0.6 | 0.6 |
| Thiamin, mg | 1.6 \pm 0.0 | 1.5 \pm 0.0 | 1.4 \pm 0.0 | 1.5 \pm 0.0 | 1.5 \pm 0.1 | 1.6 \pm 0.0 | 1.9 \pm 0.1 | 1.8 \pm 0.0 | 0.009 | <0.0001 |
| Sodium, mg | 2561 \pm 43 | 2760 \pm 51 | 2216 \pm 54 | 2509 \pm 55 | 2408 \pm 73 | 2703 \pm 88 | 2760 \pm 68 | 2866 \pm 106 | 0.2 | 0.5 |
| Potassium, mg | 2332 \pm 32 | 2593 \pm 28 | 2212 \pm 52 | 2662 \pm 49 | 2396 \pm 81 | 2784 \pm 45 | 2670 \pm 66 | 2960 \pm 58 | <0.0001 | <0.0001 |
| Zinc, mg | 9.1 \pm 0.2 | 10.2 \pm 0.2 | 8.4 \pm 0.3 | 10.2 \pm 0.6 | 8.9 \pm 0.4 | 10.8 \pm 0.4 | 10.8 \pm 0.4 | 11.7 \pm 0.3 | 0.0004 | <0.0001 |
| Calcium, mg | 902.6 \pm 23.0 | 754.1 \pm 16.6 | 965.9 \pm 24.8 | 799.4 \pm 27.6 | 963.9 \pm 31.6 | 818.3 \pm 19.8 | 1071.1 \pm 49.6 | 852.4 \pm 22.5 | <0.0001 | <0.0001 |
| Iron, mg | 11.5 \pm 0.2 | 11.8 \pm 0.1 | 11.0 \pm 0.3 | 12.2 \pm 0.4 | 11.8 \pm 0.5 | 12.8 \pm 0.4 | 14.4 \pm 0.5 | 14.1 \pm 0.3 | <0.0001 | <0.0001 |
| Magnesium, mg | 236.1 \pm 3.4 | 280.9 \pm 3.9 | 231.0 \pm 7.3 | 302.3 \pm 9.7 | 262.4 \pm 7.1 | 335.0 \pm 6.8 | 330.8 \pm 8.2 | 388.7 \pm 7.8 | <0.0001 | <0.0001 |

RAE, retinol activity equivalents. Data are based on the Canadian Community Health Survey (CCHS) 2015 and are presented as mean \pm standard error. Results are unadjusted.

^aCCHS 2015 respondents were stratified according to whole grain intake: those in the “no whole grain intake” (No-WG) group reported consuming no whole grain foods on a single 24-hour dietary recall. The remaining participants that consumed whole grains were divided according to age-specific tertiles into low- middle- and high-whole grain foods intake (low-WG, mid-WG, high-WG).

^bStatistical significance was determined based on linear trends across whole grain intake groups for children and adults (separately) and a $p < 0.002$, after applying a Bonferroni correction for multiple comparisons ($0.05/22$ nutrients = 0.00227), was considered statistically significant.