**Table S 1.** Consumption of main food groups (bold) and selected food sub-groups among 3- to 6-year-old children in the DAGIS study according to parental educational level (PEL).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **All children (n=811)** | **Low PEL (n=175)** | **Middle PEL (n=342)** | **High PEL (n=294)** |
| **Food group (g/d)** | **Mean**  | **SD** | **Mean** | **SD** | **Mean** | **SD** | **Mean** | **SD** |
| **Vegetables and vegetable dishes** | **99** | **63** | **84** | **54** | **96** | **58** | **113** | **72** |
| Fresh vegetables and vegetable salads  | 65 | 46 | 58 | 39 | 64 | 45 | 70 | 49 |
| Vegetarian dishes | 24 | 39 | 18 | 34 | 22 | 33 | 32 | 47 |
| **Potatoes and potato dishes** | **59** | **45** | **60** | **47** | **59** | **43** | **58** | **45** |
| Boiled and mashed potatoes | 52 | 44 | 50 | 47 | 53 | 43 | 53 | 44 |
| Fried potatoes | 7 | 13 | 10 | 15 | 6 | 12 | 6 | 13 |
| **Fruit, berries, fruit and berry products** | **180** | **109** | **162** | **105** | **185** | **110** | **186** | **110** |
| Fresh fruit | 97 | 76 | 88 | 77 | 98 | 76 | 102 | 74 |
| Berries | 10 | 20 | 7 | 18 | 10  | 18 | 12 | 23 |
| 100 % juice | 22 | 44 | 21 | 43 | 19 | 41 | 26 | 47 |
| **Cereals and bakery products** | **242** | **99** | **236** | **106** | **233** | **92** | **257** | **102** |
| Rye bread | 15 | 16 | 13 | 16 | 15 | 15 | 16 | 16 |
| Rye crispbread | 7 | 7 | 8 | 8 | 7 | 6 | 7 | 6 |
| Multi-grain bread | 25 | 24 | 24 | 20 | 27 | 21 | 25 | 21 |
| White bread | 7 | 11 | 6 | 11 | 7 | 11 | 8 | 12 |
| Breakfast cereals, sugar-sweetened | 6 | 9 | 5 | 9 | 6 | 10 | 6 | 10 |
| Porridge | 108 | 92 | 106 | 104 | 102 | 83 | 117 | 93 |
| Pasta, rice and other grain side dish | 29 | 32 | 32 | 38 | 27 | 28 | 31 | 33 |
| Pizza, hamburgers and savoury pastries | 18 | 26 | 20 | 30 | 16 | 23 | 20 | 28 |
| Buns, doughnuts, cakes and sweet pastries | 11 | 17 | 11 | 19 | 11 | 17 | 11 | 16 |
| Biscuits and muesli bars | 6 | 9 | 5 | 8 | 7 | 10 | 6 | 9 |
| **Fat spreads, oils and dressings** | **20** | **13** | **20** | **14** | **21** | **14** | **20** | **12** |
| Margarine and fat spread | 11 | 8 | 11 | 9 | 11 | 8 | 11 | 9 |
| Blended spread | 4 | **6** | **3** | 5 | 4 | 5 | 5 | 6 |
| **Fish and fish dishes** | **33** | **41** | **26** | **38** | **35** | **42** | **36** | **40** |
| **Eggs and egg dishes** | **7** | **13** | **6** | **14** | **7** | **13** | **7** | **14** |
| **Meat and meat dishes** | **147** | **74** | **153** | **72** | **148** | **76** | **141** | **73** |
| Cold cuts | 5 | 6 | 5 | 7 | 5 | 6 | 5 | 6 |
| Poultry dishes | 31 | 38 | 31 | 39 | 30 | 36 | 31 | 39 |
| Red meat dishes | 93 | 65 | 99 | 68 | 94 | 64 | 90 | 65 |
| Sausage dishes | 17 | 28 | 17 | 25 | 19 | 31 | 15 | 35 |
| **Milk and dairy products** | **531** | **229** | **514** | **237** | **527** | **214** | **548** | **240** |
| Milk, skimmed | 237 | 211 | 175  | 174 | 230 | 204 | 285 | 227 |
| Milk (1–1.5 % fat) | 148 | 176 | 198 | 205 | 146 | 168 | 123 | 227 |
| Yoghurt and Finnish cultured milk, sugar-sweetened | 50 | 64 | 53 | 70 | 51 | 64 | 48 | 59 |
| Yoghurt and Finnish cultured milk, unsweetened | 12 | 31 | 7 | 20 | 13 | 30 | 14 | 35 |
| Cheese | 11 | 12 | 11 | 12 | 12 | 12 | 11 | 12 |
| Ice cream | 9 | 15 | 8 | 15 | 9 | 14 | 11 | 16 |
| Dairy-based desserts | 24 | 39 | 28 | 44 | 23 | 38 | 21 | 37 |
| **Sugar and sweets** | **13** | **16** | **13** | **18** | **14** | **16** | **12** | **13** |
| Sweets and chocolate | 11 | 16 | 11 | 18 | 12 | 16 | 10 | 13 |
| **Beverages** | **196** | **184** | **222** | **200** | **196** | **189** | **182** | **167** |
| Sugar-sweetened juice | 55 | 72 | 60  | 75 | 52 | 74 | 57 | 67 |
| Sugar-sweetened soft drinks | 12  | 34 | 19  | 41 | 12  | 34 | 8 | 27 |

*Categories for PEL: low PEL: high school, vocational school or lower education; middle PEL: bachelor’s degree or equivalent; high PEL: master’s degree or higher education.*

**Table S 2.** Food consumption (in ingredient level) of 3- to 6-year-old children in the DAGIS study according to parental educational level (PEL).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **All children (n=811)** | **Low PEL (n=175)** | **Middle PEL (n=342)** | **High PEL (n=294)** |
| **Food group (g/d)** | **Mean** | **SD** | **Mean** | **SD** | **Mean** | **SD** | **Mean** | **SD** |
| **Root vegetables and other vegetables** | 98 | 73 | 87 | 66 | 96 | 69 | 107 | 81 |
| **Legumes and plant-based proteins** | 4 | 16 | 3 | 15 | 4 | 17 | 4 | 14 |
| **Nuts and seeds** | 2 | 6 | 1 | 4 | 1 | 6 | 2 | 7 |
| **Fruits** | 114 | 117 | 106 | 107 | 113 | 118 | 118 | 119 |
| **Berries** | 22 | 39 | 16 | 33 | 22 | 37 | 23 | 44 |
| **Fish and seafood** | 19 | 38 | 14 | 33 | 19 | 38 | 21 | 39 |
| **Red meat** | 33 | 42 | 38 | 43 | 31 | 42 | 32 | 40 |
| **Poultry** | 18 | 32 | 17 | 33 | 18 | 32 | 17 | 32 |
| **Cold cuts and sausages** | 23 | 39 | 22 | 39 | 24 | 40 | 21 | 37 |

*Categories for PEL: low PEL: high school, vocational school or lower education; middle PEL: bachelor’s degree or equivalent; high PEL: master’s degree or higher education.*

**Table S 3.** Intake of energy and nutrients among 3- to 6-year-old children in the DAGIS study according to parental educational level (PEL).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **All children (n=811)** | **Low PEL (n=175)** | **Middle PEL (n=342)** | **High PEL (n=294)** |
| **Nutrient** | **Mean** | **SD** | **Mean** | **SD** | **Mean** | **SD** | **Mean** | **SD** |
| **Energy, MJ/d** | 5.76 | 1.07 | 5.72 | 1.13 | 5.70 | 1.06 | 5.87 | 1.03 |
| **Protein, g/d** | 55 | 13 | 54 | 13 | 55 | 12 | 57 | 13 |
| **Carbohydrates, g/d** | 166 | 34 | 163 | 36 | 164 | 34 | 169 | 33 |
| **Sucrose, g/d** | 37 | 15 | 37 | 16 | 37 | 16 | 36 | 14 |
| **Added sugar, g/d** | 32 | 16 | 32 | 17 | 32 | 17 | 31 | 15 |
| **Fibre, g/d** | 13.8 | 4.0 | 12.9 | 3.7 | 13.6 | 3.9 | 14.6 | 4.1 |
| **Fat, g/d** | 50 | 12 | 51 | 14 | 49 | 12 | 50 | 12 |
| **SAFA, g/d** | 19.1 | 5.5 | 19.8 | 6.2 | 19.0 | 5.2 | 18.9 | 5.3 |
| **Trans fatty acids, g/d** | 0.68 | 0.36 | 0.75 | 0.50 | 0.66 | 0.31 | 0.67 | 0.31 |
| **Cholesterol, mg/d** | 143 | 65 | 142 | 72 | 143 | 59 | 144 | 67 |
| **MUFA, g/d** | 16.9 | 4.5 | 17.4 | 5.2 | 16.7 | 4.3 | 16.9 | 4.5 |
| **PUFA, g/d** | 7.7 | 2.5 | 7.7 | 2.7 | 7.5 | 2.4 | 7.9 | 2.5 |
| **Linoleic acid, mg/d** | 5.1 | 1.8 | 5.2 | 2.1 | 5.0 | 1.7 | 5.2 | 1.6 |
| **Alfa linolenic acid, mg/d** | 1.46 | 0.53 | 1.45 | 0.58 | 1.42 | 0.47 | 1.51 | 0.57 |
| **EPA, mg/d** | 76 | 113 | 53 | 87 | 76 | 111 | 91 | 126 |
| **DHA, mg/d** | 222 | 325 | 150 | 245 | 223 | 320 | 266 | 364 |
| **Vitamin A, µg RAE/d** | 548 | 349 | 531 | 288 | 529  | 312 | 584 | 416 |
| **Vitamin D, µg/d** | 9.1 | 3.4 | 8.8 | 3.5 | 9.0 | 3.2 | 9.6 | 3.6 |
| **Vitamin E, mg/d** | 6.2 | 1.9 | 6.1 | 2.1 | 6.0 | 1.8 | 6.5 | 1.9. |
| **Thiamine, mg/d** | 0.82 | 0.21 | 0.79 | 0.21 | 0.82 | 0.21 | 0.84 | 0.21 |
| **Riboflavin, mg/d** | 1.63 | 0.47 | 1.56 | 0.46 | 1.62 | 0.43 | 1.70 | 0.50 |
| **Niacin eq., mg/d** | 19.3 | 4.7 | 18.9 | 4.9 | 19.1 | 4.4 | 20.0 | 4.8 |
| **Vitamin B6, mg/d** | 1.18 | 0.32 | 1.14 | 0.31 | 1.16 | 0.30 | 1.23 | 0.33 |
| **Folate, µg/d** | 147 | 46 | 138 | 40 | 145 | 42 | 154 | 53 |
| **Vitamin B12, µg/d** | 4.3 | 1.9 | 4.0 | 1.5 | 4.2 | 1.8 | 4.6 | 2.2 |
| **Vitamin C, mg/d** | 68 | 33 | 63 | 28 | 67 | 33 | 72 | 34 |
| **Sodium, mg/d** | 1946 | 456 | 1912 | 498 | 1934 | 443 | 1984 | 444 |
| **Potassium, mg/d** | 2523 | 586 | 2408 | 564 | 2500 | 557 | 2627 | 615 |
| **Phosphorous, mg/d** | 1123 | 269 | 1078 | 262 | 1113 | 262 | 1165 | 275 |
| **Calcium, mg/d** | 947 | 288 | 910 | 281 | 941 | 278 | 981 | 297 |
| **Magnesium, mg/d** | 233 | 52 | 221 | 49 | 230 | 49 | 244 | 54 |
| **Iron, mg/d** | 7.1 | 1.9 | 6.9 | 2.2 | 7.0 | 1.7 | 7.3 | 1.9 |
| **Zinc, mg/d** | 7.8 | 1.8 | 7.6 | 1.9 | 7.7 | 1.8 | 8.1 | 1.8 |
| **Iodine, µg/d** | 185 | 51 | 179 | 51 | 184 | 48 | 192 | 53 |

*Categories for PEL: low PEL: high school, vocational school or lower education; middle PEL: bachelor’s degree or equivalent; high PEL: master’s degree or higher education. SAFA: saturated fatty acids; eq.: equivalents; MUFA: monounsaturated fatty acids; PUFA: polyunsaturated fatty acids; EPA: eicosapentaenoic acid; DHA: docosahexaenoic acid; RAE: retinol activity equivalents.*

**Table S 4.** Food groups and examples of included food items in the DAGIS study.

|  |  |
| --- | --- |
| **Food group** | **Examples of food items included in the food group** |
| **Vegetables and vegetable dishes** |  |
| Fresh vegetables, vegetable-based salads | Tomatoes, broccoli, lettuce, carrot |
| Vegetable dishes | Spinach soup, vegetable sauce, soya casserole |
| **Potatoes and potato dishes** |  |
| Boiled and mashed potatoes |  |
| Fried potatoes and potato dishes | French fries, baked potatoes, potato casserole |
| **Fruit, berries, fruit and berry products** |  |
| Fresh fruit | Apples, grapes, bananas |
| Berries | Blueberries, strawberries, frozen berries |
| Fruit and berry juice (100 %) | Orange juice, apple juice, blackcurrant juice |
| **Cereals and bakery products** |  |
| Rye bread |  |
| Rye crispbread |  |
| Multigrain bread | Mixed-grain bread, oat bread, barley bread |
| White bread | Wheat baguette, wheat toast |
| Breakfast cereals, sugar-sweetened | Breakfast cereals, Weetabix, muesli |
| Porridge | Porridge, gruel |
| Pasta, rice and other grain side dishes | Macaroni, noodles, couscous |
| Pizza, hamburgers and savoury pastries | Karelian pastries, meat pastries |
| Buns, doughnuts, cakes and sweet pastries | Muffins, cinnamon rolls |
| Biscuits and muesli bars | Cookies, gingerbread, cream crackers |
| **Fat spreads, oils and dressings** |  |
| Margarine and vegetable fat spread | Margarine ≥60 %, vegetable fat spreads  |
| Blended spread | Fat blend spreads 60–80 % |
| **Fish and seafood dishes** | Fish fillets, fish fingers, canned fish, shrimps |
| **Eggs and egg dishes** | Boiled eggs, fried eggs |
| **Meat and meat dishes** |  |
| Cold cuts | Ham, turkey, salami |
| Red meat dishes | Minced meat sauce, steak |
| Sausage dishes | Barbecue sausage, oven-baked sausage |
| Poultry dishes | Chicken fillets, chicken meatballs, grilled turkey |
| **Milk and dairy products** |  |
| Milk, skimmed |  |
| Milk (1–1.5 % fat) |  |
| Yoghurt and cultured milk, sugar-sweetened | Fruit and berry yoghurts |
| Yoghurt and cultured milk, unsweetened | Plain yoghurt |
| Cheese | Creamy cheese, Edam-type cheese, feta, mozzarella |
| Ice cream |  |
| Dairy-based desserts | Pudding, milkshake |
| **Sugar and sweets** |  |
| Sweets and chocolate | Sweets, chocolate bar, chewing gum |
| **Beverages** |  |
| Juice drinks (sugar-sweetened) | Juice drinks from concentrate diluted with water |
| Soft drinks (sugar-sweetened) | Cola beverages, flavoured water |