**SUPPLEMENTAL TABLE 1**

Group sizes (n) and age and BMI means for the analysis of EPA, DPA and DHA absolute (µg/ml) concentrations in the four lipid fractions

|  |  |  |  |
| --- | --- | --- | --- |
|  | All | Male | Female |
|  | PC | NEFAs | CEs | TGs | PC | NEFAs | CEs | TGs | PC | NEFAs | CEs | TGs |
|   | (n, 265) | (n, 272) | (n, 293) | (n, 294) | (n, 126) | (n, 128) | (n, 139) | (n, 139) | (n, 139) | (n, 144)  | (n, 154)  | (n, 155) |
| Oily fish intake |  |  |  |  |  |  |  |  |  |  |  |  |
| 0/wk | 52 | 55 | 58 | 61 | 25 | 26 | 29 | 30 | 27 | 29 | 29 | 31 |
| 0.1-0.99/wk | 127 | 127 | 138 | 136 | 63 | 65 | 66 | 66 | 64 | 62 | 72 | 70 |
| 1-1.99/wk | 52 | 57 | 60 | 60 | 24 | 23 | 27 | 26 | 28 | 34 | 33 | 34 |
| 2+/wk | 34 | 33 | 37 | 37 | 14 | 14 | 17 | 17 | 20 | 19 | 20 | 20 |
| mean / wk | 1.03 | 1.01 | 1.03 | 1.03 | 0.92 | 0.87 | 0.96 | 0.95 | 1.13 | 1.13 | 1.10 | 1.10 |
| + | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| Age group |  |  |  |  |  |  |  |  |  |  |  |  |
| 20-29y | 36 | 38 | 41 | 43 | 13 | 15 | 15 | 16 | 23 | 23 | 26 | 27 |
| 30-39y | 59 | 57 | 62 | 61 | 32 | 29 | 33 | 33 | 27 | 28 | 29 | 28 |
| 40-49y | 57 | 60 | 66 | 65 | 30 | 29 | 32 | 31 | 27 | 31 | 34 | 34 |
| 50-59y | 73 | 74 | 77 | 78 | 34 | 36 | 38 | 38 | 39 | 38 | 39 | 40 |
| 60+y | 40 | 43 | 47 | 47 | 17 | 19 | 21 | 21 | 23 | 24 | 26 | 26 |
| mean age (y) | 45.10 | 45.40 | 45.20 | 45.20 | 44.80 | 45.30 | 45.30 | 45.10 | 45.40 | 45.40 | 45.30 | 45.20 |
| + | 0.80 | 0.80 | 0.80 | 0.80 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| BMI group (n)1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Normal weight | 128 | 131 | 142 | 142 | 37 | 38 | 43 | 42 | 91 | 93 | 99 | 100 |
| Overweight | 110 | 117 | 123 | 124 | 73 | 75 | 78 | 79 | 37 | 42 | 45 | 45 |
| Obese | 27 | 24 | 28 | 28 | 16 | 15 | 18 | 18 | 11 | 9 | 10 | 10 |
| mean BMI (kg/m2) | 25.20 | 25.20 | 25.20 | 25.20 | 26.20 | 26.20 | 26.20 | 26.20 | 24.20 | 24.30 | 24.30 | 24.30 |
| + | 0.20 | 0.20 | 0.20 | 0.20 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 |
| *APOE* genotype (n)2 |  |  |  |  |  |  |  |  |  |  |  |  |
| *E2* | 75 | 76 | 81 | 81 | 33 | 31 | 34 | 33 | 42 | 45 | 47 | 47 |
| *E3* | 84 | 90 | 98 | 99 | 40 | 45 | 50 | 50 | 44 | 45 | 48 | 50 |
| *E4* | 106 | 106 | 114 | 114 | 53 | 52 | 55 | 56 | 53 | 54 | 59 | 58 |

PC, Phosphatidylcholine; NEFAs, non-esterified fatty acids; CEs, cholesteryl esters; TGs, triacyglycerol; E2, E2/E2 + E2/E3; E3, E3/E3; E4, E3/E4 + E4/E4.

There was no significant difference between the age of male and female participants, however, males had a significantly higher average BMI than females (*P* <0.001 in all lipid fraction cohorts; obtained using a Mann- Whitney U test in SPSS statistics version 21 software (SPSS Inc.).

1 Normal weight, 18-25kg/m2; Overweight, 25.1-30.0kg/m2; Obese, 30.1-46.0kg/m2.

2 PC: E2/E2 n = 4, E2/E3 n = 71, E3/E3 n = 84, E3/E4 n = 94, and E4/E4 n = 12. NEFA: E2/E2 n = 5, E2/E3 n = 71, E3/E3 n = 89, E3/E4 n = 95, and E4/E4 n = 12. CE: E2/E2 n = 5, E2/E3 n = 77, E3/E3 n = 98, E3/E4 n = 101, E4/E4 n = 12. TG: E2/E2 n = 5, E2/E3 n = 77, E3/E3 n = 99, E3/E4 n = 101, and E4/E4 n = 12.