**Supplementary Material**

**Table S1. Concentration of serum fatty acids of the phospholipid fraction before and after 3 months of either placebo or n-3 PUFA treatment.**

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| --- | --- | --- | --- |
| **Variables** | **Placebo****N=38** | **n-3 PUFAs****N=36** | **p-value** |
| C12 (µmol/l)Before After | 2.08 (1.31; 3.14)1.83 (1.43; 2.68)  | 1.76 (1.30; 3.32)1.85 (1.29; 3.60) | 0.890.795 |
| C14 (µmol/l)Before After | 16.40 (14.04; 19.89)17.06 (14.29; 20.14) | 17.33 (14.83; 19.23)15.11 (13.67; 20.27) | 0.710.45 |
| C16 (µmol/l)Before After | 946.31(828.34; 1079.57)975.42 (861.97; 1110.27) | 955.95 (881.07; 1072.16986.27 (827.33; 1204.30) | 0.500.91 |
| C18 (µmol/l)Before After | 450.32 (336.30; 513.79)484.23 (393.22; 530.75) | 402.38 (365.36; 463.72)396.15 (342.41; 531.54) | 0.6650.115 |
| C24 (µmol/l)Before After | 24.70 (21.81; 27.35)23.05 (19.99; 29.70) | 23.48 (17.96; 30.69)22.68 (18.32; 28.20) | 0.680.47 |
| C16:1 (µmol/l)Before After | 14.76 (10.34; 21.86)16.65 (10.75; 22.52) | 15.09 (13.80; 18.86)15.55 (11.27; 20.35) | 0.340.83 |
| C18:1 (µmol/l)Before After | 288.13 (±69.47)304.42 (±72.14)  | 299.30 (±76.66)279.51 (±71.65) | 0.520.14 |
| C18:3 (µmol/l)Before After | 6.30 (4.85; 9.72)6.84 (5.43; 9.04) | 6.45 (4.78; 8.69) 5.64 (4.09; 6.99) | 0.730.07 |
| C20:5; EPA (µmol/l)Before After | 60.73 (42.67; 80.92)54.04 (36.73; 73.82) | 62.94 (45.17; 82.51)164.42 (132.51; 203.77)\*\* | 0.72<0.0001 |
| C22:6; DHA (µmol/l)Before After | 289.57 (242.59; 327.43)270.97 (217.79;362.07) | 283.51 (230.39; 343.82)437.91 (360.32; 512.80)\*\* | 0.66<0.0001 |
| C18:2(µmol/l)Before After | 439.23 (378.39; 538.20)465.48 (370.30; 525.92) | 438.84 (358.21; 529.38)378.29 (320.11; 485.52)\* | 0.9650.03 |
| C20:4; AA (µmol/l)Before After | 543.66 (±100.48) 573.14 (±113.03)  | 560.06 (±151.06)437.32 (±108.30)\*\* | 0.59<0.0001 |
| C20:2 (µmol/l)Before After | 17.10 (13.38;21.30)18.39 (15.43;23.09) | 16.29 (14.78;20.77) 14.24 (12.05;20.49) | 0.850.01 |
| n-6 : n-3 1ratioBefore After | 2.8(2.37; 3.44)3.09(2,63; 634) | 3.11(2,25; 3.78)1.32(1.13; 1.68)\*\* | 0.42< 0.0001 |

Data shown as number (percentage) for categorical variables and mean (±standard deviation) or median (IQR) for continuous variables.

 1 **The n-6: n-3** **ratio** was calculated by measuring: linoleic, C18:2n-6; eicosadienoic, C20:2n-6; and arachidonic -AA, C20n:4-6 acids to estimate total n-6 fatty acids and C18:3n-3, alfa-linolenic; C20:5n-3; C22:6n-3 to estimate total n-3 fatty acids; \* p=0.003 within the n-3 PUFA group, \*\* p < 0.0001 within the n-3 PUFAs group. Abbreviations as in the text of manuscript.