**Supplemental Table 1.** Fatty acid profile of the Brazil nuts and Cashew nuts (% of total fatty acids)

|  |  |  |
| --- | --- | --- |
| **Fatty Acids** | **Brazil nut** | **Cashew nut** |
| Palmitic acid (C16:0) | 14.0 | 8.19 |
| Estearic acid (C18:0) | 10.0 | 7.23 |
| Oleic acid (C18:1n9) | 36.3 | 67.0 |
| Linoleic acid (C18:2n6) | 39.5 | 17.5 |
| Alpha-linolenic acid (C18:3n3) | 0.1 | 0.07 |
| Total SFA | 24.0 | 15.4 |
| Total MUFA | 36.3 | 67.0 |
| Total PUFA | 39.6 | 17.6 |

Values are mean of triplicate

**Supplemental Table 2.** Intra and inter-assay coefficient variation of biochemical measures.

|  |  |  |
| --- | --- | --- |
| **Biochemical measures** | **Intra-assay CV (%)** | **Inter-assay CV (%)** |
| LDL-c | 1.40 | 1.43 |
| HDL-c | 1.50 | 0.11 |
| Total cholesterol | 1.08 | 2.75 |
| TG | 0.61 | 0.46 |
| Glucose | 3.61 | 0.52 |
| hs-CRP | 2.81 | 5.9 |
| ApoA | 5.0 | 7.5 |
| ApoB | 5.0 | 7.5 |
| ICAM-1 | <10% | <10% |
| VCAM-1 | 5.20 | 4.34 |

CV, coefficient variation.

**Supplemental Table 3** Effect of 8-week intervention on body composition according to diet groups.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Control (n= 15)** | | **BN-group (n= 14)** | |  |
|  | Baseline | ∆ | Baseline | ∆ | ∆ *p*-value |
| ***Body composition (DEXA) §*** |  |  |  |  |  |
| Gynoid lean mass (kg) | 6.3 ± 0.3 | -0.17 ± 0.06\* | 6.6 ± 0.2 | -0.2 ± 0.1 | 0.561 |
| Gynoid lean mass (%) | 44.2 ± 1.4 | -0.3 ± 0.4 | 45.03 ± 1.2 | 0.6 ± 0.6 | 0.203 |
| Gynoid fat mass (kg) | 7.9 ± 0.5 | -0.2 ± 0.1 | 8.03 ± 0.5 | -0.3 ± 0.1\* | 0.543 |
| Gynoid fat mass percentage (%) | 55.8 ± 1.2 | -0.8 ± 1.4 | 56.3 ± 1.1 | -5.4 ± 1.7\* | 0.057 |
| Gynoid fat free mass (kg) | 6.6 ± 0.3 | -0.1 ± 0.06\* | 6.9 ± 0.2 | -0.2 ± 0.1 | 0.508 |
| Gynoid fat free mass (%) | 46.1 ± 1.4 | -0.2 ± 0.4 | 47.0 ± 1.2 | 0.7 ± 0.6 | 0.216 |
| Android lean mass (kg) | 3.01 ± 0.1 | -0.2 ± 0.04\* | 3.01±0.1 | -0.1 ± 0.05 | 0.206 |
| Android lean mass (%) | 43.2 ± 1.2 | 0.2 ± 0.6 | 42.6 ± 1.1 | 1.2 ± 0.5\* | 0.263 |
| Android fat mass (kg) | 3.9 ± 0.2 | -0.2 ± 0.06\* | 4.07 ± 0.3 | -0.3 ± 0.1\* | 0.794 |
| Android fat mass (%) | 49.5 ± 1.7 | 4.1 ± 1.4\* | 48.3 ± 1.6 | 8.5± 1.5\* | **0.045** |
| Android fat free mass (kg) | 3.0 ± 0.1 | -0.2 ± 0.04\* | 3.08 ± 1.5 | -0.1± 0.05 | 0.262 |
| Android fat free mass (%) | 44.1 ± 1.2 | 0.4 ± 0.6 | 43.6 ± 1.1 | 1.2 ± 0.5 | 0.382 |
| Truncal lean mass (kg) | 20.0 ± 0.9 | -1.2 ± 0.3\* | 19.8± 0.7 | 0.08 ± 0.2 | **0.004** |
| Truncal lean mass (%) | 47.2± 1.4 | -1.0 ± 0.7 | 45.2 ± 1.1 | 1.9 ± 0.7\* | **0.010** |
| Truncal fat mass (kg) | 21.6 ± 1.2 | -0.7 ± 0.4 | 23.2 ± 1.4 | -1.5 ± 0.4\* | 0.218 |
| Truncal fat mass e (%) | 42.6 ± 1.8 | 9.8 ± 2.0\* | 44.1 ± 2.0 | 6.5 ± 2.0\* | 0.272 |
| Truncal fat free mass (kg) | 20.9 ± 0.9 | -1.2 ± 0.3\*\* | 20.8 ± 0.7 | 0.03 ± 0.2\*\* | **0.003** |
| Truncal fat free mass (%) | 49.4 ± 1.4 | -0.7 ± 0.6 | 47.6 ± 1.1 | 1.8 ± 0.6\* | **0.013** |

Values are mean ± SEM. ∆ = final – baseline assessment. Significant differences within-group are expressed by \* *p* ≤ 0.05 or \*\**p* ≤ 0.001 (paired t-test or Wilcoxon test). ∆ *p-*values refer to the comparison between groups (independent-samples t-test or Mann-Whitney U test). BMI, body mass index; WHtR, Waist-to-height ratio; WHR, Waist-to-hip ratio. § Subsample analyze (control *n*= 10; mixed nut *n*= 11).