|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Measurements | | Details | 16 °C | 24 °C | 32 °C | p (F) | 16 vs 24  p (d) | 32 vs 24  p (d) | 16 vs 32  p (d) |
| Core Temperature (°C) | | Day | 36.88 ± 0.21 | 37.01 ± 0.15 | 37.11 ± 0.20 | **0.001** (10.492) | **0.036** (0.665) | 0.082 (0.488) | **0.001** (1.153) |
| Night | 36.55 ± 0.34 | 37.03 ± 0.18 | 37.10 ± 0.36 | 0.462 (0.770) | 1.000 (0.255) | 1.000 (0.109) | 0.701 (0.365) |
| 24-h | 36.72 ± 0.15 | 36.86 ± 0.16 | 36.94 ± 0.11 | **0.001** (15.71) | **0.005** (1.014) | 0.122 ( 0.630) | **0.001** (1.644) |
| Skin Temperature (°C) | | Day | 31.06 ± 1.04 | 33.42 ± 0.60 | 34.92 ± 0.47 | **0.001** (304.7) | **0.001** (3.162) | **0.001** (2.008) | **0.001** (5.170) |
| Night | 34.39 ± 0.83 | 34.48 ± 0.51 | 34.82 ± 0.33 | **0.031** (4.387) | 1.000 (0.147) | **0.094** (0.561) | **0.022** (0.708) |
| 24-h | 32.48 ± 0.80 | 33.87 ± 0.47 | 34.92 ± 0.36 | **0.001** (174.5) | **0.001** (2.214) | **0.001** (1.824) | **0.001** (4.238) |
| Heart Rate (bpm) | | Day | 70 ± 8 | 73 ± 8 | 77 ± 7 | **0.001** (17.318) | **0.010** (0.470) | **0.024** (0.420) | **0.001** (0.889) |
| Night | 59 ± 8 | 57 ± 6 | 58 ± 6 | 0.267 (1.336) | 0.427 (0.246) | 0.121 (0.207) | 1.000 (0.039) |
| 24-h | 66 ± 8 | 68 ± 7 | 71 ± 7 | **0.001** (9.823) | 0.148 (0.313) | **0.061** (0.371) | **0.001** (0.684) |
| EE (kJ/min) | | 24-h | 6.257 ± 0.552 | 5.909 ± 0.579 | 6.195 ± 0.709 | **0.014** (5.256) | **0.012** (0.489) | **0.049** (0.401) | 1.000 (0.088) |
| RQ | | 24-h | 0.904 ± 0.071 | 0.901 ± 0.057 | 0.883 ± 0.072 | 0.343 (1.034) | 1.000 (0.035) | 0.841 (0.275) | 0.889 (0.310) |
| Intake (g) | Water | 24-h | 1587 ± 816 | 2193 ± 920 | 3369 ± 1233 | **0.001** (45.78) | **0.008** (0.060) | **0.001** (1.172) | **0.001** (1.771) |
| Food | 24-h | 2283 ± 463 | 2173 ± 430 | 2365 ± 435 | **0.046** (3.65) | 0.391 (0.250) | **0.030** (0.432) | 0.769 (0.192) |
| Total | 24-h | 3869 ± 1012 | 4365 ± 1013 | 5734 ± 1354 | **0.001** (43.75) | **0.062** (0.442) | **0.001** (1.202) | **0.001** (1.642) |
| Loss (g) | Urine and feces | 24-h | 2698 ± 897 | 2590 ± 1066 | 2211 ± 965 | **0.019** (4.47) | 1.000 (0.112) | 0.096 (0.392) | **0.020** (0.500) |
| Sweat | 24-h | 1268 ± 354 | 1524 ± 384 | 2986 ± 520 | **0.001** (167.83) | **0.046** (0.602) | **0.001** (3.442) | **0.001** (4.042) |
| Total | 24-h | 3967 ± 928 | 4114 ± 996 | 5198 ± 1080 | **0.001**(28.09) | 1.000 (0.152) | **0.001** (1.082) | **0.001** (1.232) |
| Body mass modifications (g) | | 24-h | -97 ± 656 | 240 ± 530 | 536 ± 725 | **0.001** (10.17) | 0.056 (0.542) | 0.136 (0.462) | **0.001** (0.992) |
| Urine specific gravity | | Before sleep | 1.027 ± 0.004 | 1.023 ± 0.006 | 1.021 ± 0.007 | **0.028\*\*** | 0.055 (0.475) | 0.380 (0.008) | 0.055 (0.475) |
| Before lunch | 1.021 ± 0.006 | 1.019 ± 0.007 | 1.020 ± 0.008 |
| Urine color (/7) | | Before sleep | 3.1 ± 1.2 | 2.6 ± 1.4 | 2.2 ± 1.3 | 0.065\*\* | 0.649 (0.136) | **0.038** (0.450) | 0.154 (0.346) |
| Before lunch | 2.9 ± 0.9 | 2.7 ± 1.2 | 3.2 ± 1.2 |
| Thermal sensation (/100) | | 24-h | 28 ± 11 | 53 ± 5 | 76 ± 11 | **0.001** (157.62) | **0.001** (2.181) | **0.001** (2.048) | **0.001** (4.229) |
| Thermal discomfort (/100) | | 24-h | 61 ± 15 | 35 ± 12 | 58 ± 19 | **0.001** (20.527) | **0.001** (1.524) | **0.001** (1.343) | 1.000 (0.181) |
| Spontaneous physical activity (min) | | 24-h | 111 ± 52 | 93 ± 61 | 80 ± 68 | **0.001** | **0.033** (0.292) | 1.000 (0.219) | **0.003** (0.511) |
| Total sleep time (min) | | Night | 478 ± 35 | 470 ± 33 | 467 ± 30 | 0.360 (1.051) | 0.360 (0.229) | 0.884 (0.100) | 0.250 (0.314) |
| Sleep onset latency (min) | | Night | 42.3 ± 37.0 | 41.4 ± 15.2 | 36.6 ± 20.7 | 0.501 (0.702) | 0.920 (0.024) | 0.280 (0.232) | 0.352 (0.154) |
| Wake after sleep onset (min) | | Night | 18.6 ± 10.9 | 24.3 ± 16.5 | 27.5 ± 13.2 | 0.066 (2.932) | 0.090 (0.523) | 0.752 (0.242) | 0.065 (0.817) |
| Total wake time (min) | | Night | 63.6 ± 35.9 | 71.7 ± 34.3 | 68.3 ± 28.1 | 0.667 (0.412) | 0.650 (0.226) | 0.720 (0.120) | 0.340 (0.131) |
| Sleep efficiency (%)\* | | Night | 88.4 ± 6.6 | 86.9 ± 6.3 | 87.2 ± 5.3 | 0.600 (0.523) | 0.650 (0.227) | 0.890 (0.057) | 0.750 (0.182) |
| Fatigue score before sleep | | Night | 47.9 ± 18.2 | 54.0 ± 15.3 | 48.7 ± 21.4 | 0.540 (0.625) | 0.214 (0.331) | 0.227 (0.291) | 0.893 (0.040) |
| Fatigue score before breakfast | | Night | 33.2 ± 22.0 | 34.0 ± 16.0 | 37.4 ± 22.7 | 0.662 (0.430) | 0.858 (0.040) | 0.405 (0.167) | 0.392 (0.208) |
| Fatigue score before lunch | | Night | 30.8 ± 19.2 | 28.5 ± 14.9 | 36.1 ± 19.9 | 0.273 (1.212) | 0.565 (0.125) | 0.111 (0.416) | 0.090 (0.292) |
| Meal duration (min) | | Dinner | 15.6 ± 3.7 | 15.7 ± 4.2 | 15.4 ± 2.8 | 0.905 (0.096) | 1.000 (0.024) | 1.000 (0.084) | 1.000 (0.060) |
| Breakfast | 8.9 ± 3.1 | 8.8 ± 2.5 | 9.6 ± 2.5 | 0.117 | 0.518 (0.048) | **0.048** (0.307) | 0.173 (0.258) |
| Lunch | 12.6 ± 3.4 | 13.5 ± 3.8 | 12.6 ± 4 | 0.216 (1.602) | 0.385 (0.258) | 0.385 (0.258) | 1.000 (0.000) |
| 24-h | 37 ± 8 | 38 ± 9 | 38 ± 8 | 0.719 | 1.000 (0.542) | 1.000 (0.446) | 1.000 (0.879) |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Measurements | | Details | 16 °C | 24 °C | 32 °C | p (F) | 16 vs 24  p (d) | 32 vs 24  p (d) | 16 vs 32  p (d) |
| Palatability (/100) | | Dinner cold dish | 39 ± 31 | 47 ± 31 | 46 ± 31 | 0.161 (1.951) | 0.333 (0.216) | 1.000 (0.021) | 0.245 (0.236) |
| Dinner warm dish | 70 ± 16 | 67 ± 16 | 67 ± 17 | 0.575 (0.56) | 1.000 (0.197) | 1.000 (0.190) | 1.000 (0.178) |
| Dinner dessert | 44 ± 33 | 43 ± 32 | 47 ± 34 | 0.423 (0.807) | 1.000 (0.047) | 0.640 (0.117) | 1.000 (0.070) |
| Dinner bread | 58 ± 26 | 56 ± 29 | 62 ± 27 | 0.457 (0.74) | 1.000 (0.004) | 0.912 (0.157) | 0.880 (0.158) |
| BF cottage cheese | 62 ± 21 | 71 ± 17 | 73 ± 19 | **0.058** (3.26) | 0.160 (0.472) | 1.000 (0.098) | **0.065** (0.567) |
| BF Madeleines | 78 ± 21 | 76 ± 22 | 72 ± 21 | **0.066** | 0.498 (0.099) | 0.118 (0.221) | **0.028** (0.320) |
| BF Juice | 68 ± 23 | 67 ± 23 | 71 ± 24 | 0.58 (0.532) | 1.000 (0.043) | 0.992 (0.189) | 1.000 (0.146) |
| Lunch cold dish | 35 ± 31 | 36 ± 30 | 37 ± 31 | 0.26 | 0.142 (0.015) | 0.876 (0.057) | 0.188 (0.072) |
| Lunch warm dish | 60 ± 27 | 56 ± 31 | 60 ± 22 | 0.989 | 0.941 (0.141) | 0.882 (0.124) | 0.941 (0.016) |
| Lunch dessert dish | 55 ± 31 | 50 ± 30 | 52 ± 31 | 0.525 (0.639) | 0.800 (0.146) | 1.000 (0.060) | 1.000 (0.086) |
| Lunch bread | 51 ± 35 | 55 ± 32 | 54 ± 30 | 0.57 (0.445) | 1.000 (0.139) | 1.000 (0.057) | 1.000 (0.082) |
| Dinner | 53 ± 18 | 54 ± 20 | 56 ± 16 | 0.751 | 1.000 (0.109) | 1.000 (0.052) | 1.000 (0.057) |
| Breakfast | 69 ± 16 | 71 ± 15 | 72 ± 16 | 0.401 (0.921) | 1.000 (0.041) | 1.000 (0.107) | 0.587 (0.147) |
| Lunch | 50 ± 22 | 48 ± 21 | 50 ± 17 | 0.501 (0.664) | 1.000 (0.129) | 1.000 (0.034) | 0.843 (0.163) |
| 24-h | 56 ± 15 | 57 ± 15 | 58 ± 13 | 0.505 (0.651) | 1.000 (0.034) | 0.970 (0.083) | 0.985 (0.118) |
| Appetite subjective ratings | Hunger (/100) | Before dinner | 67 ± 17 | 63 ± 16 | 68 ± 18 | 0.362 (1.041)\*\* | 0.629 (0.128) | 1.000 (0.005) | 0.682 (0.123) |
| Before breakfast | 61 ± 19 | 55 ± 20 | 57 ± 21 |
| Before lunch | 45 ± 19 | 45 ± 21 | 40 ± 21 |
| Mean 24-h | 30 ± 10 | 26 ± 10 | 27 ± 10 |
| Gastric fullness (/100) | Before dinner | 27 ± 14 | 29 ± 16 | 26 ± 13 | 0.624 (0.477)\*\* | 1.000 (0.061) | 1.000 (0.077) | 1.000 (0.017) |
| Before breakfast | 33 ± 22 | 25 ± 16 | 29 ± 19 |
| Before lunch | 43 ± 16 | 41 ± 20 | 46 ± 19 |
| Mean 24-h | 60 ± 12 | 59 ± 12 | 60 ± 12 |
| Desire to eat (/100) | Before dinner | 75 ± 14 | 70 ± 19 | 76 ± 18 | 0.596 (0.524)\*\* | 0.976 (0.114) | 1.000 (0.081) | 1.000 (0.033) |
| Before breakfast | 61 ± 19 | 61 ± 21 | 67 ± 21 |
| Before lunch | 49 ± 23 | 47 ± 23 | 42 ± 26 |
| Mean 24-h | 33 ± 13 | 31 ± 12 | 32 ± 10 |
| Prospective consumption (/100) | Before dinner | 67 ± 15 | 63 ± 17 | 67 ± 16 | 0.081 (2.667)\*\* | 0.079 (0.243) | 1.000 (0.103) | 0.574 (0.140) |
| Before breakfast | 58 ± 20 | 59 ± 17 | 58 ± 17 |
| Before lunch | 48 ± 18 | 49 ± 17 | 49 ± 21 |
| Mean 24-h | 35 ± 12 | 31 ± 10 | 32 ± 12 |
| Composite Appetite Score (/100) | Before dinner | 66 ± 19 | 66 ± 13 | 71 ± 14 |  |  |  |  |
| Before breakfast | 62 ± 17 | 62 ± 14 | 63 ± 15 | 0.554 (0.593)\*\* | 0.868 (0.197) | 1.000 (0.071) | 1.000 (0.126) |
| Before lunch | 50 ± 15 | 50 ± 18 | 46 ± 19 |  |  |  |  |
| Mean 24-h | 34 ± 10 | 32 ± 9 | 33 ± 9 |  |  |  |  |
| Thirst (/100) | 24-h | 20 ± 11 | 21 ± 12 | 26 ± 16 | **0.001** (8.579) | 1.000 (0.042) | **0.005** (0.323) | **0.001** (0.365) |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Measurements | | Details | 16 °C | 24 °C | 32 °C | p (F) | 16 vs 24  p (d) | 32 vs 24  p (d) | 16 vs 32  p (d) |
| Nutritional analysis of the dinner | Food Intake (g) | Cold dish | 150 ± 144.1 | 173 ± 109.3 | 209 ± 147,6 | **0.078** (2.708) | 0.913 (0.171) | 0.622 (0.271) | 0.114 (0.442) |
| Warm dish | 533 ± 188.4 | 453 ± 161.1 | 485 ± 197.5 | **0.023** (4.101) | **0.023** (0.436) | 0.929 (0.177) | 0.228 (0.259) |
| Dessert | 114 ± 81.5 | 136 ± 89 | 143 ± 83 | 0.107 (2.35) | 0.409 (0.259) | 1.000 (0.077) | 0.287 (0.336) |
| Bread | 64 ± 38.1 | 66 ± 38.2 | 64 ± 43.4 | 0.918 (0.085) | 1.000 (0.054) | 1.000 (0.042) | 1.000 (0.012) |
| Macronutrient repartition | Carbohydrate (g) | 153 ± 33.3 | 145 ± 28.1 | 154 ± 27.9 | 0.222 (1.576) | 0.711 (0.246) | 0.270 (0.355) | 1.000 (0.110) |
| Carbohydrate (%) | 48 ± 7.6 | 48 ± 6.1 | 47 ± 6.9 | 0.529 (0.614) | 1.000 (0.084) | 1.000 (0.078) | 0.725 (0.162) |
| Fat (g) | 50 ± 12.7 | 49 ± 14.1 | 53 ± 14.5 | **0.065** (3.117) | 0.579 (0.078) | **0.066** (0.340) | 0.661 (0.262) |
| Fat (%) | 35 ± 3.6 | 35 ± 3.1 | 36 ± 3.7 | 0.599 (0.493) | 1.000 (0.055) | 1.000 (0.080) | 1.000 (0.135) |
| Protein (g) | 53 ± 19.1 | 52 ± 19.4 | 58 ± 20.6 | **0.080** (2.757) | 1.000 (0.011) | 0.158 (0.272) | 0.133 (0.283) |
| Protein (%) | 16 ± 4.1 | 17 ± 3.2 | 17 ± 3.4 | 0.508 (0.689) | 1.000 (0.208) | 1.000 (0.072) | 0.750 (0.179) |
| Energy Intake (kJ) | | 5352 ± 1045.1 | 5118 ± 1182.5 | 5550 ± 1128.9 | **0.076** (2.785) | 0.627 (0.209) | **0.069** (0.386) | 0.857 (0.177) |
| Nutritional analysis of the breakfast | Food Intake (g) | BF cottage cheese | 261 ± 114.2 | 269 ± 119.9 | 298 ± 123.1 | 0.155 (1.943) | 1.000 (0.069) | 0.580 (0.242) | **0.028** (0.311) |
| BF Madeleines | 124 ± 46.2 | 119 ± 48.8 | 132 ± 60.2 | 0.326 (1.151) | 0.906 (0.093) | 0.475 (0.245) | 1.000 (0.152) |
| BF Juice | 299 ± 161.9 | 297 ± 138 | 358 ± 184.3 | **0.059** (3.013) | 1.000 (0.009) | **0.082** (0.374) | 0.256 (0.365) |
| Macronutrient repartition | Carbohydrate (g) | 110 ± 32.4 | 108 ± 30.7 | 122 ± 38.6 | **0.054** (3.487) | 1.000 (0.056) | **0.058** (0.430) | 0.121 (0.374) |
| Carbohydrate (%) | 45 ± 4.7 | 44 ± 5.4 | 45 ± 6.4 | 0.837 (0.169) | 1.000 (0.089) | 1.000 (0.048) | 1.000 (0.042) |
| Fat (g) | 49 ± 14.4 | 48 ± 15.4 | 53 ± 16.3 | **0.066** (3.015) | 1.000 (0.007) | 0.123 (0.352) | 0.112 (0.360) |
| Fat (%) | 44 ± 3 | 44 ± 3.8 | 44 ± 4.5 | 0.805 (0.208) | 1.000 (0.014) | 1.000 (0.071) | 1.000 (0.085) |
| Protein (g) | 28 ± 8.9 | 28 ± 9.2 | 31 ± 9.2 | **0.041** (3.544) | 1.000 (0.009) | 0.153 (0.360) | **0.046** (0.452) |
| Protein (%) | 11 ± 2.1 | 12 ± 2.2 | 11 ± 2.5 | 0.430 (0.841) | 1.000 (0.195) | 1.000 (0.010) | 0.121 (0.374) |
| Energy Intake (kJ) | | 4130 ± 1166.4 | 4078 ± 1170.1 | 4573 ± 1310 | **0.049** (3.465) | 1.000 (0.042) | **0.063** (0.406) | 0.113 (0.364) |
| Nutritional analysis of the lunch | Food Intake (g) | Lunch cold dish | 109 ± 137.6 | 139 ± 130.7 | 159 ± 153.3 | **0.074** | **0.084** (0.208) | 0.660 (0.143) | 0.191 (0.351) |
| Lunch warm dish | 404 ± 165.1 | 339 ± 151.8 | 333 ± 147.9 | **0.011** (5.022) | **0.025** (0.420) | 1.000 (0.034) | 0.103 (0.454) |
| Lunch dessert dish | 131 ± 89.7 | 146 ± 85.8 | 139 ± 101.2 | 0.589 (0.535) | 0.449 (0.157) | 1.000 (0.072) | 1.000 (0.085) |
| Lunch bread | 58 ± 42.8 | 58 ± 36.7 | 44 ± 45.5 | 0.206 | 0.865 (0.002) | 0.110 (0.317) | 0.152 (0.319) |
| Macronutrient repartition | Carbohydrate (g) | 117 ± 39.7 | 117 ± 39.6 | 114 ± 39.8 | 0.803 (0.214) | 1.000 (0.085) | 1.000 (0.116) | 1.000 (0.030) |
| Carbohydrate (%) | 39 ± 6.6 | 40 ± 6.8 | 40 ± 5.9 | 0.265 (1.367) | 0.319 (0.197) | 1.000 (0.111) | 1.000 (0.086) |
| Fat (g) | 53 ± 17.9 | 50 ± 15.7 | 51 ± 17.9 | 0.767 (0.266) | 1.000 (0.012) | 1.000 (0.099) | 1.000 (0.111) |
| Fat (%) | 39 ± 5 | 39 ± 4.8 | 40 ± 4.2 | 0.480 (0.747) | 1.000 (0.091) | 0.695 (0.150) | 1.000 (0.059) |
| Protein (g) | 64 ± 20.8 | 60 ± 17.9 | 60 ± 18.7 | 0.195 (1.708) | 1.000 (0.148) | 0.996 (0.167) | 0.214 (0.315) |
| Protein (%) | 21 ± 2.9 | 21 ± 22.9 | 21 ± 2.9 | **0.025** (4.232) | **0.045** (0.292) | 1.000 (0.003) | **0.048** (0.289) |
| Energy Intake (kJ) | | 5015 ± 1562 | 4864 ± 1433 | 4836 ± 1555 | 0.707 (0.320) | 1.000 (0.099) | 1.000 (0.018) | 1.000 (0.118) |
| Carbohydrate (g) | | 24-h | 381 ± 66.4 | 370 ± 72.3 | 391 ± 73.3 | 0.197 (1.723) | 1.000 (0.088) | 0.234 (0.301) | 0.625 (0.213) |
| Carbohydrate (%) | | 24-h | 44 ± 4.1 | 44 ± 4.1 | 44 ± 4.7 | 0.646 (0.419) | 1.000 (0.056) | 1.000 (0.096) | 1.000 (0.040) |
| Fat (g) | | 24-h | 152 ± 31 | 147 ± 32.6 | 158 ± 36.5 | 0.189 (1.770) | 1.000 (0.034) | 0.268 (0.245) | 0.468 (0.211) |
| Fat (%) | | 24-h | 39 ± 2.4 | 39 ± 2.6 | 39 ± 2.9 | 0.581 (0.512) | 1.000 (0.054) | 0.952 (0.105) | 1.000 (0.051) |
| Protein (g) | | 24-h | 145 ± 37.5 | 140 ± 37.2 | 148 ± 37.9 | 0.586 (0.498) | 1.000 (0.050) | 0.986 (0.133) | 1.000 (0.082) |
| Protein (%) | | 24-h | 17 ± 2.2 | 17 ± 2 | 16 ± 2.2 | 0.822 (0.165) | 1.000 (0.046) | 1.000 (0.650) | 1.000 (0.019) |
| Energy intake (kJ) | | 24-h | 14496 ± 2644 | 14060 ± 2849 | 14959 ± 2992 | 0.120 (2.377) | 0.887 (0.154) | 0.104 (0.317) | 0.804 (0.163) |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Measurements | | Details | 16 °C | 24 °C | 32 °C | p (F) | 16 vs 24  p (d) | 32 vs 24  p (d) | 16 vs 32  p (d) |
| Food preferences | Dinner\* | Fat explicit liking | 8.8 ± 14.4 | 6.1 ± 13.5 | 3.1 ± 11.7 | **0.009** (5.436) | 0.271 (0.266) | 0.375 (0.24) | **0.006** (0.505) |
| Fat implicit wanting | 19.6 ± 25.5 | 21.7 ± 38.2 | 4.4 ± 29.5 | **0.002** (7.898) | 0.989 (0.163) | **0.020** (0.470) | **0.001** (0.632) |
| Taste explicit liking | -5.3 ± 22.1 | -0.1 ± 25.2 | 2.5 ± 24.0 | **0.001** (7.888) | 0.238 (0.193) | 0.106 (0.233) | **0.001** (0.427) |
| Taste implicit wanting | -18.1 ± 38.4 | -7.7 ± 40.4 | -9.3 ± 42.0 | 0.123 (2.252) | 1.000 (0.097) | 0.463 (0.227) | 0.134 (0.324) |
| Texture explicit liking | -9.3 ± 11.9 | -13.6 ± 14.6 | -12.6 ± 13.2 | 0.175 (1.824) | 0.227 (0.289) | 0.495 (0.225) | 1.000 (0.065) |
| Texture implicit wanting | -29.8 ± 13.6 | -37.6 ± 18.6 | -33.0 ± 20.0 | 0.113 (2.448) | 0.421 (0.263) | 0.109 (0.378) | 1.000 (0.115) |
| Temp explicit liking | -20.2 ± 15.8 | -12.3 ± 10.6 | 1.7 ± 13.1 | **0.001** (35.745) | **0.001** (0.947) | **0.001** (1.033) | **0.001** (1.980) |
| Temp implicit wanting | -40.1 ± 20.9 | -26.5 ± 19.6 | -1.1 ± 21.6 | **0.001** (37.776) | **0.001** (0.908) | **0.001** (1.091) | **0.001** (1.999) |
| Breakfast | Fat explicit liking | 14.0 ± 14.0 | 11.1 ± 14.1 | 5.9 ± 13.3 | **0.003** (6.859) | 0.590 (0.211) | **0.071** (0.378) | **0.002** (0.589) |
| Fat implicit wanting | 27.1 ± 23.2 | 22.3 ± 20.9 | 10.8 ± 28.0 | **0.001** (10.628) | 0.565 (0.200) | **0.009** (0.473) | **0.001** (0.673) |
| Taste explicit liking | 35.0 ± 24.9 | 35.3 ± 22.1 | 36.1 ± 25.6 | 0.935 (0.062) | 1.000 (0.012) | 1.000 (0.031) | 1.000 (0.043) |
| Taste implicit wanting | 45.2 ± 24.8 | 47.5 ± 26.8 | 45.5 ± 29.3 | 0.697 (0.359) | 1.000 (0.085) | 1.000 (0.075) | 1.000 (0.010) |
| Lunch\* | Fat explicit liking | 6.8 ± 14.3 | 2.3 ± 14.8 | -1.2 ± 11.8 | **0.009** (5.436) | 0.271 (0.266) | 0.375 (0.240) | **0.006** (0.505) |
| Fat implicit wanting | 19.4 ± 27.1 | 7.6 ± 27.9 | -3 ± 28.4 | **0.002** (7.898) | 0.989 (0.163) | **0.020** (0.470) | **0.001** (0.632) |
| Taste explicit liking | -4.7 ± 20.1 | -0.6 ± 27.7 | 8.0 ± 24.0 | **0.001** (7.888) | 0.238 (0.193) | 0.106 (0.233) | **0.001** (0.427) |
| Taste implicit wanting | -13.9 ± 29.6 | -16.6 ± 43.3 | 3.0 ± 42.5 | 0.123 (2.252) | 1.000 (0.097) | 0.463 (0.227) | 0.134 (0.324) |
| Texture explicit liking | -11.0 ± 10.4 | -14.2 ± 16.2 | -9.3 ± 11.2 | 0.175 (1.824) | 0.227 (0.289) | 0.495 (0.225) | 1.000 (0.065) |
| Texture implicit wanting | -30.5 ± 17.6 | -32.2 ± 15.6 | -23.1 ± 22.5 | 0.113 (2.448) | 0.421 (0.263) | 0.109 (0.378) | 1.000 (0.115) |
| Temp explicit liking | -24.4 ± 16.6 | -8.0 ± 7.9 | 4.6 ± 11.1 | **0.001** (35.745) | **0.001** (0.947) | **0.001** (1.033) | **0.001** (1.98) |
| Temp implicit wanting | -41.3 ± 20.4 | -16.7 ± 16.7 | 3.8 ± 26.0 | **0.001** (37.776) | **0.001** (0.908) | **0.001** (1.091) | **0.001** (1.999) |
| Olfaction - Threshold (/16) | | Before lunch | 6.0 ± 2.4 | 6.8 ± 3.1 | 5.6 ± 2.0 | 0.151 (2.004) | 0.190 (0.289) | 0.103 (0.078) | 0.450 (0.333) |
| Olfaction - Discrimination (/16) | | Before lunch | 13.0 ± 2.1 | 12.6 ± 2.1 | 12.7 ± 2.3 | 0.349 (1.120) | 0.295 (0.186) | 0.748 (0.156) | 0.704 (0.287) |
| Olfaction - Identification (/16) | | Before lunch | 12.7 ± 1.5 | 12.3 ± 1.8 | 12.0 ± 2.1 | 0.357 (1.150) | 0.484 (0.184) | 0.347 (0.280) | 0.248 (0.032) |
| Olfaction - Total score (/48) | | Before lunch | 31.6 ± 3.8 | 31.7 ± 4.7 | 30.4 ± 4.6 | 0.317 (1.522) | 0.906 (0.023) | 0.218 (0.017) | 0.211 (0.188) |
| Taste (/16) | | Before lunch | 12.0 ± 2.5 | 11.9 ± 2.1 | 11.9 ± 2.9 | 0.939 (0.060) | 0.718 (0.056) | 0.935 (0.122) | 0.854 (0.043) |
| Plasma hormones levels | Acylated ghrelin | Before lunch | 176 ± 130 | 149 ± 118 | 137 ± 90 | **0.038\*\*** | **0.032** (0.230) | 1.000 (0.110) | **0.032** (0.342) |
| After lunch | 74 ± 47 | 82 ± 70 | 70 ± 51 |
| GLP-1 | Before lunch | 20.9 ± 14.1 | 18.3 ± 15.9 | 14.8 ± 11.7 | 0.054\*\* | 0.112 (0.182) | 0.465 (0.252) | **0.023** (0.437) |
| After lunch | 40.1 ± 17.7 | 35.6 ± 16.8 | 36.4 ± 26.9 |
| PYY | Before lunch | 123 ± 58 | 109 ± 48 | 120 ± 88 | 0.196 (1.712)\*\* | 0.408 (0.250) | 0.628 (0.150) | 0.887 (0.041) |
| After lunch | 187 ± 69 | 153 ± 42 | 168 ± 57 |
| Leptine | Before lunch | 1191 ± 1313 | 1280 ± 1306 | 1371 ± 1261 | **0.019\*\*** | 0.883 (0.112) | **0.016** (0.172) | **0**.**023** (0.062) |
| After lunch | 1364 ± 1502 | 1226 ± 1085 | 1442 ± 1250 |

*\* p value and post hoc p and d are the same for the food preference questionnaires score during dinner and lunch, because no interaction between time and meals effect was observed. \*\* Only the temperature effect of the two way ANOVA with repeated measurements (time and temperature) are presented.*