**Article title**: A single day of mixed-macronutrient overfeeding does not elicit compensatory appetite or energy intake responses but exaggerates postprandial lipemia during the next day in healthy young men.

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**Supplementary Table 1.** Composite palatability scores for the meals provided during the day of dietary manipulation on the energy balance and overfeed trials.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Energy Balance** | **Overfeed** | ***p*** | ***d*** |
| **Breakfast** |  |  |  |  |
| Porridge | 33 (10) | 36 (7) | 0.148 | 0.45 |
| Milkshake | 56 (18) | 60 (12) | 0.329 | 0.25 |
|  |  |  |  |  |
| **Lunch** |  |  |  |  |
| Pasta dish | 52 (15) | 51 (14) | 0.571 | 0.09 |
| Soup | 53 (13) | 48 (12) | 0.105 | 0.41 |
| Milkshake | 59 (15) | 58 (18) | 0.863 | 0.02 |
|  |  |  |  |  |
| **Dinner** |  |  |  |  |
| Rice dish | 46 (20) | 47 (19) | 0.830 | 0.03 |
| Milkshake | 56 (16) | 64 (14) | 0.020 | 0.57 |

Values are mean (SD), *n* = 12.



**Supplementary Figure 1.** Composite appetite score during the day of dietary manipulation on the Energy Balance (●; solid line) and Overfeed (○; dashed line) trials. Values are mean (SEM), *n* = 12.



**Supplementary Figure 2.** Time-averaged area under the curve for composite appetite score during a mixed-meal tolerance test after a day of supervised feeding in accordance with estimated energy requirements (Energy Balance) or 50% overfeeding (Overfeed). Bars are mean (SEM). Lines represent individual participants. *n* = 12.



**Supplementary Figure 3.** Time-averaged area under the curve for plasma acylated ghrelin (a), total GLP-1 (b) and total PYY concentrations (c) during a mixed-meal tolerance test after a day of supervised feeding in accordance with estimated energy requirements (Energy Balance) or 50% overfeeding (Overfeed). Bars are mean (SEM). Lines represent individual participants. *n* = 12.



**Supplementary Figure 4.** Time-averaged area under the curve for plasma glucose (a), insulin (b), triglycerides (c) and non-esterified fatty acids (d) during a mixed-meal tolerance test after a day of supervised feeding in accordance with estimated energy requirements (Energy Balance) or 50% overfeeding (Overfeed). Bars are mean (SEM). Lines represent individual participants. *n* = 12.