**Supplementary Material**

**A sample 1800 Kcal ST diet**

**Breakfast:** 2 servings of bread and cereal + 1 serving of meat + 1 serving of vegetables + 1 serving of fat

**Morning snack:** 1 serving of fruit + 1 serving of milk + 1 serving of fat

**Lunch:** 4 servings of bread and cereal + 2 servings of meat + 1 serving of vegetables + 2 servings of fat

**Afternoon snack:** 1 serving of bread and cereal + 1 serving of fruit

**Dinner:** 3 servings of bread and cereal + 1 serving of meat + 1 serving of vegetables + ½ serving of milk + 2 servings of fat

**Evening snack:** 1 serving of fruit + ½ serving of milk

**A sample 1800 Kcal HC diet**

**Breakfast:** 2 servings of bread and cereal + 1 serving of meat + 1 serving of vegetables + 1 serving of fat

**Morning snack:** 1 serving of fruit + ½ serving of milk + 2 servings of fat

**Lunch:** 3 servings of bread and cereal + 2 servings of meat + 1 serving of vegetables + 2 servings of fat

**Afternoon snack:** 1 serving of bread and cereal + 1 serving of milk

**Dinner:** 4 servings of bread and cereal + 1 serving of meat + 1 serving of vegetables + ½ serving of milk + 1 serving of fat

**Evening snack:** 2 servings of fruit

**A sample 1800 Kcal HP diet**

**Breakfast:** 2 servings of bread and cereal + 1 serving of meat + 1 serving of vegetables + 1 serving of fat + ½ serving of milk

**Morning snack:** 1 serving of fruit + 1 serving of bread and cereal + 1 serving of fat

**Lunch:** 4 servings of bread and cereal + 1 serving of meat + 1 serving of vegetables + 3 servings of fat

**Afternoon snack:** 1 serving of bread and cereal + 1 serving of fruit

**Dinner:** 2 servings of bread and cereal + 2 servings of meat + 1 serving of vegetables + 1 serving of milk + 1 serving of fat

**Evening snack:** 1 serving of fruit + ½ serving of milk

**Servings:**

**1 serving of bread and cereal:** 30 g bread or 1/3 cup cooked rice or 1/2 cup spaghetti or 6 crackers or 1/2 medium boiled potato or 1/2 cup bread and starchy vegetables like corn or green peas or …

**1 serving of meat:** 30 g meat (or fish or chicken or turkey) or 1 medium egg or 30 g feta cheese or …

**1 serving of milk:** 1 cup low-fat milk or 2/3 cup low-fat yogurt or 2 cups doogh drink or …

**1 serving of fruit:** 1 small apple or 1 medium orange or 1 medium peach or …

**1 serving of vegetables:** 1 cup raw vegetables or 1/2 cup cooked vegetables or …

**1 serving of fat:** 1 tsp vegetable oil or 2 walnuts or 6 almonds or 10 peanuts or 1 Tbsp pumpkin or sunflower or sesame seeds or 9 large olives or …

**Note:** ½ cup cooked beans or peas or lentils = 1 serving of lean meat + 1 serving of bread and cereal

**Dietary recommendations:**

* Limit intake of foods with high sugar content like cola, jam, sweets, candies, commercial fruit juices, etc.
* Limit intake of high glycemic index foods like watermelon, white bread, etc.
* Eat legumes and soya at least two times per week.
* Eat whole grains instead of white bread or white rice.
* Consume fruits as a whole instead of fruit juices.
* Eat a variety of foods in amounts permitted in your diet.
* Use vegetable oils such as olive oil or canola.
* Avoid hydrogenated oils.
* Limit intake of trans fatty acid sources like cookies, ice cream, etc.
* Limit intake of foods with high saturated fatty acid like butter, cream, mayonnaise, etc.
* Eat lean meat, fish or poultry.
* Avoid fast foods like pizza, sausage, hamburger, etc.
* Consume low-fat dairies.
* Limit intake of fried foods. Instead, use boiled or steamed foods.
* Limit intake of salt and foods with high sodium content like pickles and processed foods.

Supplemental Table 1. Energy intake (Kcal) of the participants at each meal

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ST (n = 36) | | | | | | |  | HC (n = 31) | | | | | | |  | HP (n = 29) | | | | | | | P value2 |
|  | Baseline | | End | | Change | | P value1 |  | Baseline | | End | | Change | | P value1 |  | Baseline | | End | | Change | | P value1 |
| Mean | SD | Mean | SD | Mean | SD |  | Mean | SD | Mean | SD | Mean | SD |  | Mean | SD | Mean | SD | Mean | SD |
| Breakfast & morning snack | 615 | 235 | 526 | 141 | -89 | 191 | 0.008 |  | 602 | 220 | 490 | 135 | -112 | 172 | 0.001 |  | 552 | 221 | 465 | 121 | -87 | 196 | 0.024 | 0.84 |
| Lunch & afternoon snack | 770 | 229 | 633 | 136 | -138 | 172 | <0.001 |  | 802 | 262 | 619 | 164 | -183 | 197 | <0.001 |  | 823 | 252 | 635 | 173 | -188 | 186 | <0.001 | 0.47 |
| Dinner & evening snack | 517 | 223 | 525 | 138 | 8 | 183 | 0.80 |  | 652 | 243 | 664 | 169 | 12 | 196 | 0.74 |  | 608 | 370 | 587 | 151 | -21 | 316 | 0.72 | 0.84 |
| Total daily | 1902 | 562 | 1683 | 369 | -219 | 337 | <0.001 |  | 2057 | 589 | 1774 | 419 | -283 | 383 | <0.001 |  | 1983 | 665 | 1687 | 406 | -297 | 463 | 0.002 | 0.70 |

Abbreviations:ST, standard evening meal; HC, high carbohydrate evening meal; HP, high protein evening meal.

1 Changes from week 0 to week 10 using paired t-test

2 Difference between groups using one-way ANOVA.