

### The Effects of a Hypocaloric Diet Containing Peanuts on Weight Loss, Glycemic Control and Blood Pressure: A 6-Month Randomized Controlled Trial

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**Objectives:** The objective was to examine the effect of consuming peanuts prior to two main meals per day as part of a hypocaloric weight loss diet, compared to a hypocaloric diet devoid of peanuts, on body weight, hemoglobin A1c (HbA1c), and blood pressure.

**Methods:** A two-arm, randomized, controlled trial was conducted. Adults (age >18 years) with a BMI of >26 kg/m<sup>2</sup> at increased risk of type 2 diabetes (AUSDRISK score >12) were randomized to the peanut group or the traditional low fat diet group (control). The peanut group was advised to consume 35 g of lightly salted, roasted peanuts prior to two main meals per day. Participants in the control group were asked to avoid peanuts/peanut butter for the duration of the

trial. Both diet groups were advised to restrict energy intake (women: 5500 kJ/1300 kcal/d; men: 7000 kJ/1700 kcal/d). Outcome assessment occurred at baseline, 3 and 6 months.

**Results:** In total, 107 participants were randomized (65% female; mean age 58 ± 14 years, BMI 33 ± 5.4 kg/m<sup>2</sup>, waist circumference 109 ± 13 cm, AUSDRISK score of 15 ± 5) and 76 participants completed the study. No between-group difference in body weight (primary outcome) was observed ( $p = 0.90$ ). Mean weight loss at 6 months was 6.7 ± 5.1 kg in the cohort ( $p$  value for time < 0.001). HbA1c was lowered over time (0.1 ± 0.2%;  $p < 0.001$ ) with no between group difference ( $p = 0.80$ ). Systolic blood pressure was reduced to a greater extent in the peanut group vs. the control group (mean difference -5.0 mmHg; 95% CI -9.6 to -1.1  $p = 0.014$ ).

**Conclusions:** Intake of 35 g of peanuts prior to two main meals per day, in the context of a hypocaloric diet, resulted in weight loss comparable to a traditional weight loss diet. Greater systolic blood pressure reductions were observed with peanut intake suggesting this weight loss approach may confer greater cardiovascular risk reduction.

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