



Research Summary

3A-106 Pork meat as a dietary strategy for the treatment of iron deficiency in young women

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Limited information is available on the role of pork meat in influencing iron status. The aim of the present study is to determine if an increase in the intake of pork meat over a period of 3 months will impact the nutritional status of iron, zinc, vitamin B6, vitamin B12, and the feeling of wellbeing in young women.

Healthy young women were randomly assigned to a control diet (CG), a pork containing diet (PG) or a control diet with iron supplementation (SG) for 12 weeks.

Sixty-five women aged 24.6 ± 4.4 y (mean \pm SD) completed the trial. Serum ferritin concentrations were increased significantly ($P=0.001$) in subjects assigned to SG as compared to the other groups, as assessed by repeated-measures ANOVA. At week 12, haemoglobin concentrations were significantly higher in PG and SG as compared to individuals in CG. Plasma zinc concentrations at the end of the intervention were similar to baseline concentrations for individuals in the CG and PG but were decreased significantly ($P<0.05$) in SG. Plasma-, erythrocyte-folate, serum vitamin B6 and serum vitamin B12 concentrations were not significantly affected by the intervention, although the concentrations of vitamins B6 and B12 tended to increase in PG. Responses to the Health Survey Short Form (SF36) showed a significant improvement in the scores for "vitality" in SG as compared to subjects assigned to CG or PG. In those consuming pork, the score for "bodily pain" was more favourable than scores in CG and SG. No significant relationships were observed between health concept scores and biomarkers of nutritional status.

Consumption of pork meat by young women maintains haemoglobin levels to the same extent as low-dose iron supplementation, and enhances the feeling of wellbeing.