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EFFECT OF A MEDITERRANEAN DIET (MEDDIET) WITH FRESH LEAN AUSTRALIAN PORK ON BLOOD PRESSURE, CARDIOVASCULAR RISK FACTORS AND COGNITION, MOOD AND PSYCHOLOGICAL WELLBEING IN HIGH RISK INDIVIDUALS

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**Aims and Objectives:** The study sought to examine the cardiovascular and cognitive effects of a Mediterranean diet modified to include 2-3 weekly serves of fresh, lean pork. A 24-week crossover design trial compared a Mediterranean diet with pork (MedPork) with a low-fat control diet (LF) in 33 men and women at risk of developing cardiovascular disease.

**Key Findings**

There were no significant differences between diets for blood pressure, lipids, CRP, glucose and insulin.

A small but significant effect of the LF intervention was found for weight, waist circumference, BMI and fat mass.

Sensitivity analyses showed a significant reduction in systolic blood pressure and pulse pressure in participants who were overweight after the MedPork phase.

Processing speed, a cognitive domain of attention improved following the MedPork intervention, but worsened following the LF intervention.

While the study did not detect a significance effect of diet on psychological wellbeing, positive trends were observed across all subscales of the profile of mood state questionnaire following the MedPork intervention, with improvements in Depression and Total Mood Disturbance approaching statistical significance.

**Application to Industry**

Adding pork to the Mediterranean diet may have beneficial health effects in overweight individuals on vascular function, particularly blood pressure, a key risk factor for cardiovascular disease.

To our knowledge, this research is the first to investigate whether an alternate source of protein can be included in the Mediterranean diet to increase sustainability and feasibility for a non-Mediterranean population. Findings are significant for the prevention of cardiovascular disease and age-related decline, and may inform individuals, clinicians and public health policy. The use of the Mediterranean dietary pattern continues to gain momentum. The American Dietary Guidelines 2015-2020 have adopted the pattern as one of three healthy diets for good health for Americans. Our findings offer a new angle in revitalizing the healthy image of pork offering opportunity for it to be part of a healthy dietary pattern such as the Mediterranean dietary pattern and its use in dietary practice and dietary guideline revision.