

## NPRC Project – Honours 2009

**Project title:** The effect of regular consumption of pork on body composition.

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**Funded by:** Pork CRC / APL

**Expected Start Date:** February 2009

**Project summary :**

Pork is the most widely eaten meat in the world and is a substantial source of dietary protein. Despite its frequency of consumption, there is little evidence demonstrating potential health benefits associated with eating pork. Indeed in Australia pork consumption is not as high as in other parts of the world, and this may be partly due to a misconception that pork is a “fatty meat” which may be detrimental to health. However, lean pork is an excellent source of nutrients including protein, vitamins and minerals and may help maintain or improve cardiovascular (CV) health including body composition when consumed as part of a healthy balanced diet.

Dietary protein is more satiating than carbohydrate or fat and contributes to weight loss by helping to reduce food intake ad libitum. Numerous studies have demonstrated an association between the consumption of lean red meat and increased satiety and weight loss. It is thought that high meat protein diets may enhance weight loss by increasing satiety, leading to a reduced energy intake, while at the same time increasing thermogenesis which then blunts the normal fall in energy expenditure generally seen in weight loss. The effect of regular consumption of lean pork on body composition has not been previously studied.

The aim of this project is to demonstrate that regular consumption of pork over a six month period can help improve body composition and improve CV health.

**Project:**

This is a 6 month dietary intervention trial where volunteers (n=70) will be recruited and randomly allocated to consume either a pork diet (5-7 serves per week) or maintain their habitual diet.

Volunteers will attend the Nutritional Physiology Research Centre at the beginning of the trial (0 months, baseline) then at 3 and 6 months to have their body composition assessed: body mass index (calculated from weight and height), bioelectrical impedance and dual x-ray absorptiometry. Volunteers on the pork diet will then attend the centre on a fortnightly basis to have their weight measured and collect their pork.

A student working on this project will learn how to conduct these measurements and be involved in running the clinical trial. This is a great project for a student interested in working with human volunteers and understanding more about nutritional physiology.