

**Title:** Effects of pork vs. chicken/fish in a DASH diet on blood pressure regulation in older adults with hypertension – **NPB #11-154** Final

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### **Scientific Abstract**

Hypertension is a major, modifiable risk factor for cardiovascular and kidney disease and mortality that is improved by the Dietary Approaches to Stop Hypertension (DASH) diet. The DASH diet emphasizes increased consumption of fruits/vegetables, whole-grains, lowfat dairy, and poultry/fish and reduced intakes of sodium and red meats (including pork). In a randomized crossover study, 13 women and 6 men, aged  $61 \pm 2$  y (mean $\pm$ SEM), BMI  $31.2 \pm 1.4$  kg/m<sup>2</sup>, with high blood pressure (BP) consumed the DASH diet for 2, 6-wk periods (with a 4-wk diet washout) with either chicken/fish (DASH-CF, control diet) or lean pork (DASH-P) as the major protein source (55% of protein intake). Systolic (S) and diastolic (D) BP were assessed manually (seated and supine) and with a 24h BP monitoring system on 3 days prior to and at the end of each diet period. After DASH-CF, manual SBP and DBP decreased  $6 \pm 2$  and  $6 \pm 1$  mm Hg, respectively, and 24h SBP and DBP decreased  $8 \pm 2$  and  $5 \pm 1$  mm Hg. After DASH-P, manual SBP and DBP decreased  $8 \pm 2$  and  $5 \pm 1$  mm Hg, and 24h SBP and DBP decreased  $7 \pm 2$  and  $3 \pm 1$  mm Hg. All changes in BP were statistically confirmed at  $p < 0.05$  and were not different for DASH-P vs. DASH-CF ( $p > 0.05$ ). These results indicate that substitution of lean pork for chicken and fish as the predominant source of protein does not influence the effectiveness of a DASH diet to improve blood pressure control in older adults with hypertension.

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