DASH diet can substitute lean pork for chicken or fish to reduce blood pressure

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Research led by Wayne Campbell, a Purdue University professor of nutrition science, found that adults who are following the DASH-style eating pattern to lower their blood pressure can expand their protein options to include lean, unprocessed pork. The research is published in the American Journal of Clinical Nutrition. Credit: Purdue University photo/John Underwood
Adults who are following the DASH-style eating pattern to lower their blood pressure can expand their protein options to include lean, unprocessed pork, according to research from Purdue University.

"This study supports that the DASH diet can include lean, unprocessed red meats in the appropriate serving sizes," said Wayne Campbell, a professor of nutrition science.

The study, which compared lean, unprocessed pork with chicken and fish as the predominant protein source in a DASH-style diet, is published online in the American Journal of Clinical Nutrition. The research is funded by the National Pork Board, the National Institutes of Health's Indiana Clinical and Translational Sciences Institute and Clinical Research Center, and the U.S. Department of Agriculture.

This study applies only to cuts of unprocessed lean pork, such as tenderloin and fresh, uncured ham trimmed of visible fat. Each serving size was three ounces. These findings should not be extrapolated to other pork products with higher fat and salt content, Campbell said.

The effectiveness of the DASH diet, which stands for Dietary Approaches to Stop Hypertension, limits red meat to reduce total and saturated fat as well as sodium. The DASH diet is often recommended to reduce blood pressure and is focused on the increased consumption of fruits and vegetables, whole-grains, low-fat dairy, nuts, poultry and fish, while reducing fats, red meats, including pork, and added sugars.

Many cuts of red meat, including beef or pork tenderloin and fresh ham, meet the USDA guidelines for lean, which is less than 10 grams total fat and less than 4.5 grams of saturated fat per 100 grams. Extra lean is less than 5 grams total fat and less than two grams saturated fat per 100 grams.
"If people have to rely only on fish and chicken their diet choices can be limited, and our findings support that lean pork may be a viable option for people who are consuming a DASH diet without compromising the effectiveness of the diet plan," said Drew Sayer, a doctoral student in nutrition science and a co-author on the study.

Hypertension, which is high blood pressure, is a risk factor for cardiovascular and kidney disease. About 30 percent of American adults live with hypertension and 65 percent of those 60 years and older have high blood pressure.

The 19 participants in the study had elevated high blood pressure and their average age was 61.

"The people in the study were at risk for hypertension, and they represent the 60 percent of Americans with prehypertension who are on the road to clinically high blood pressure," said Sayer.

The study's participants consumed a DASH-style diet for two, six-week periods, and they either ate lean pork or chicken and fish as the main protein source. They had a four-week break then consumed the alternate meat. Blood pressures were taken throughout the study, including at the beginning of each six-week period and at the end of the study.

Pre- and post-intervention manual and 24-hour blood pressures were not different between either DASH option of pork or chicken and fish. Consumption of these DASH-style diets for six weeks reduced all measures of blood pressure with no differences in responses between DASH with chicken and fish and DASH with pork.

**More information:** The Dietary Approaches to Stop Hypertension (DASH) diet retains effectiveness to reduce blood pressure when lean pork is substituted for chicken and fish as the predominant source of

Provided by Purdue University


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