

HEART FAILURE PROCESSED MEAT AND HEART FAILURE

Eating too much red meat is associated with an increased risk of heart failure, but the link is not universal. According to a new study by investigators in Sweden, the risk only comes from consuming processed red meat.

The team used data from the Cohort of Swedish Men, in which 48,850 men were enrolled. Participants completed a questionnaire in 1997 that detailed their lifestyle and food intake, including consumption of red meat. Unprocessed red meat was defined as pork, beef or veal, and minced meat, which in Sweden does not contain any food additives. Processed red meat included sausages, ham, salami, blood pudding, and liver paté. The investigators excluded incomplete questionnaires or individuals who had a history of heart failure, ischaemic heart disease, or cancer. Of the remaining 37,035 men, 2,891 cases of, and 266 deaths owing to, heart failure were recorded during the 12-year follow-up period. These results were then stratified according to the amount of meat an individual consumed per day.

Using a Cox proportional hazards model, which included adjustments for age, lifestyle, and consumption of alcohol, fruit, vegetables, and fish, the team calculated that a man who ate ≥ 75 g per day of processed meat was more likely to develop (HR 1.28, 95% CI 1.10–1.48, $P=0.01$), or die from (HR 2.43, 95% CI 1.52–3.88, $P<0.001$) heart failure than man who consumed <25 g per day. Surprisingly, men who ate unprocessed meat had no increase in the risk of heart failure, regardless of the amount consumed.

The investigators suggest that the increased risk of heart failure might be attributed to excess sodium, nitrites, and phosphate-containing food additives, or polycyclic aromatic hydrocarbons in smoked and grilled meat. However, they also highlight that in some studies a low-sodium diet has been associated with heart failure, and that nitrites used as a food preservative might actually have cardioprotective properties. The group, therefore, acknowledge that further investigations are needed, but their data supports the recommendations of health societies to limit consumption of processed red meat.

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Original article Kaluza, J., Åkesson, A. & Wolk, A. Processed and unprocessed red meat consumption and risk of heart failure: a prospective study of men. *Circ. Heart Fail.* doi:10.1161/CIRCHEARTFAILURE.113.000921