Burden of diseases estimates associated to different red meat cooking practices - DTU Orbit (18/11/2019)

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The burden of disease estimate has been performed for diseases attributable to nutritional deficiency, foodborne pathogens, the environment, infection and other factors. However, the burden of disease estimate attributable to different food processing practices has not been investigated before. The aim of this study is to compare the burden of disease estimate attributable to red meat consumption processed using different cooking practices. The red meat cooking practices were categorized into three: (A) barbecuing/grilling; (B) frying/broiling and (C) roasting/baking. The associated endpoints, affected population, intake and dose–response data are obtained by literature survey. The selected endpoints are four types of cancer: colorectal, prostate, breast and pancreatic. The burden of disease per cooking practice, endpoint, sex and age is estimated in the Danish population, using disability adjusted life years (DALY) as a common health metric. The results reveal that the consumption of barbecued red meat is associated with the highest disease burden, followed by fried red meat and roasted red meat. The method used to quantify the difference in disease burden of different cooking practices can help to inform the consumer to make a choice on whether the benefit of a preferred cooking style is worth the associated health loss.

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