

# It's time to act on processed meat



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# Summary

It's no secret that our diets are a major contributor to climate change. Halving the amount of meat we eat is crucial to limiting global warming to 1.5°C.

Reducing meat consumption in the UK will get us closer to meeting both climate and health goals. Processed meat consumption increases the risk of numerous cancers, including bowel cancer, and a wide range of other diseases and poor health outcomes. And there is scope for change: processed meat currently makes up about 30% of the average meat intake per person in the UK. Reducing this to a 'very little, if any' approach goes a long way in lowering the risk of diet-related diseases.

There are also numerous opportunities to influence the food environment, including updating public procurement guidance, school food standards, local food strategies and policies affecting food advertising and marketing.

Health organisations have the opportunity to develop and promote sustainable food positions and policy to their members as well as the general public.

UK national dietary guidelines need to be updated to provide separate maximum recommended levels of processed meat consumption and red meat consumption.

We can't tackle the climate, nature and public health crises without addressing our diets. With the scale of the challenges we face, every change matters.



# What is processed meat?

Processed meat is meat that has been cured, fermented, smoked or salted in order to boost its flavour and shelf life. The word 'processed' can be open to misinterpretation, but the UK public is relatively good at identifying processed meat.

The World Health Organisation's International Agency for Research on Cancer defines processed meat as:

**“Any meat that has been transformed through one or several of the following processes: salting, curing, fermentation, smoking, or other processes to enhance flavour or improve preservation. Most processed meats are made from pork or beef, but may also include other red meat, poultry, offal, or meat by-products such as blood.”**

This definition is widely used within research, and by the NHS, the British Dietetic Association, and the World Cancer Research Fund.

## Is this the same as ultra-processed food?

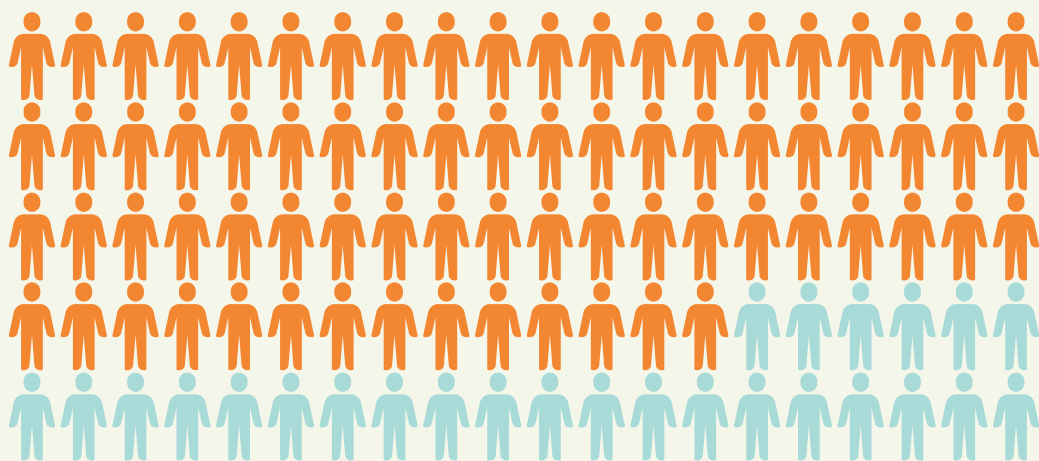
The NOVA classification system, developed in 2009 by public health and nutrition researchers, categorises foods in terms of the degree to which they are processed: 1) unprocessed or minimally processed foods; 2) processed culinary ingredients; 3) processed foods, and; 4) ultra-processed foods<sup>2</sup>. These categories are the basis for an expanding array of evidence demonstrating clear associations between high intake of ultra-processed foods and poor health outcomes<sup>3,4</sup>.

Processed meat (as discussed here) is classified by NOVA as either processed food (salted, dried, cured, or smoked meats) or ultra-processed food (sausages, burgers, hot dogs, and other reconstituted meat products). **NOVA advises that all ultra-processed food (including processed meat) is minimised in the diet, and that meat classified as processed is eaten sparingly and occasionally.**<sup>5</sup>



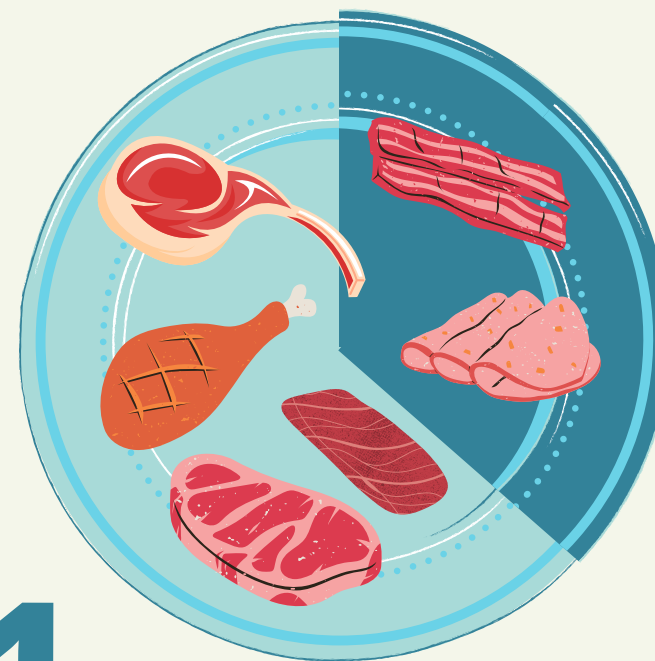
# Processed meat consumption in the UK

The annual National Diet and Nutrition Survey collects data on what we're eating as a country, through self-reported food diaries and biometric samples. The most recent full survey (2018-19) reports that, across all age groups (children 18 months and older) approximately one third of all the meat we eat is processed meat<sup>6</sup>.



**74%**

of the UK population eat processed meat



**$\frac{1}{3}$**

Almost one-third of the meat consumed in the UK is processed.

# Why we need to eat less processed meat for our health

## **Processed meat is linked to diet-related diseases including cancer and cardiovascular disease**

Based on the available evidence from epidemiological (population) studies, the International Agency for Research on Cancer (IARC) classified processed meat as a Group 1 carcinogen (meaning it can cause cancer in humans), with the strongest link to colorectal (bowel) and stomach cancers. Although the precise mechanisms are not fully understood, it is thought that processes used to preserve meat and cooking at high temperatures can form a variety of cancer-causing compounds in the final product.

Processed meat often contains a lot of salt and health risks associated with processed meat include high levels of sodium which are associated with increased risk of high blood pressure, stroke, cardiovascular disease and all-cause mortality.

## **Strongest evidence is related to risk of bowel cancer**

Studies have shown a dose-response relationship between level of intake and relative risk of disease. Analysis of 400 studies by WHO IARC show the relative risk of developing bowel cancer increases by about 18% with each additional 50g eaten per day (equivalent to one hot dog or two slices of ham). Cancer Research UK estimates that of the 42,000 new cases of bowel cancer that occur every year in the UK, 13% (or over 5,400) are caused by eating too much processed meat. This is an entirely avoidable risk.

## **No safe level of consumption has been established**

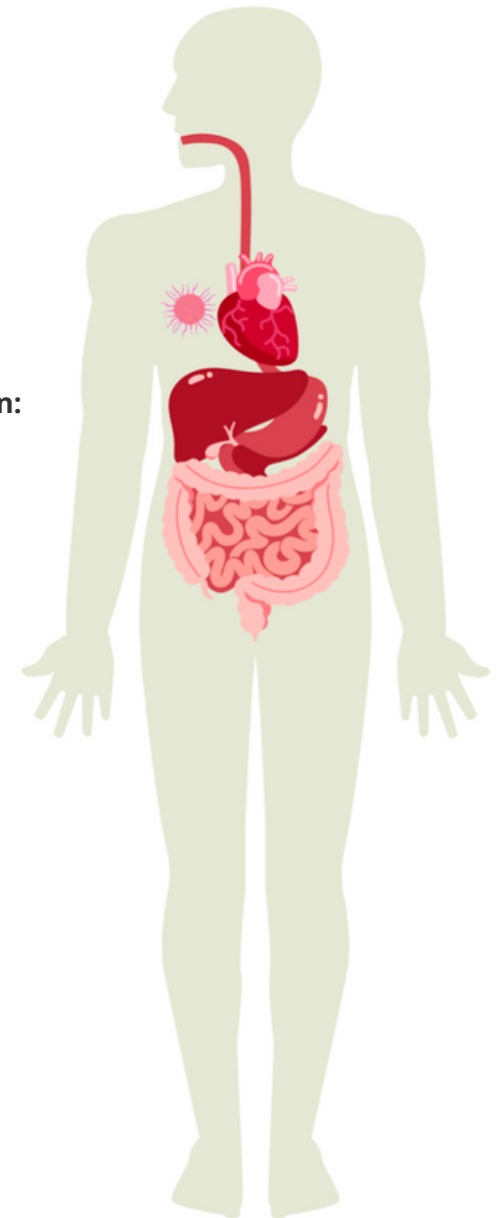
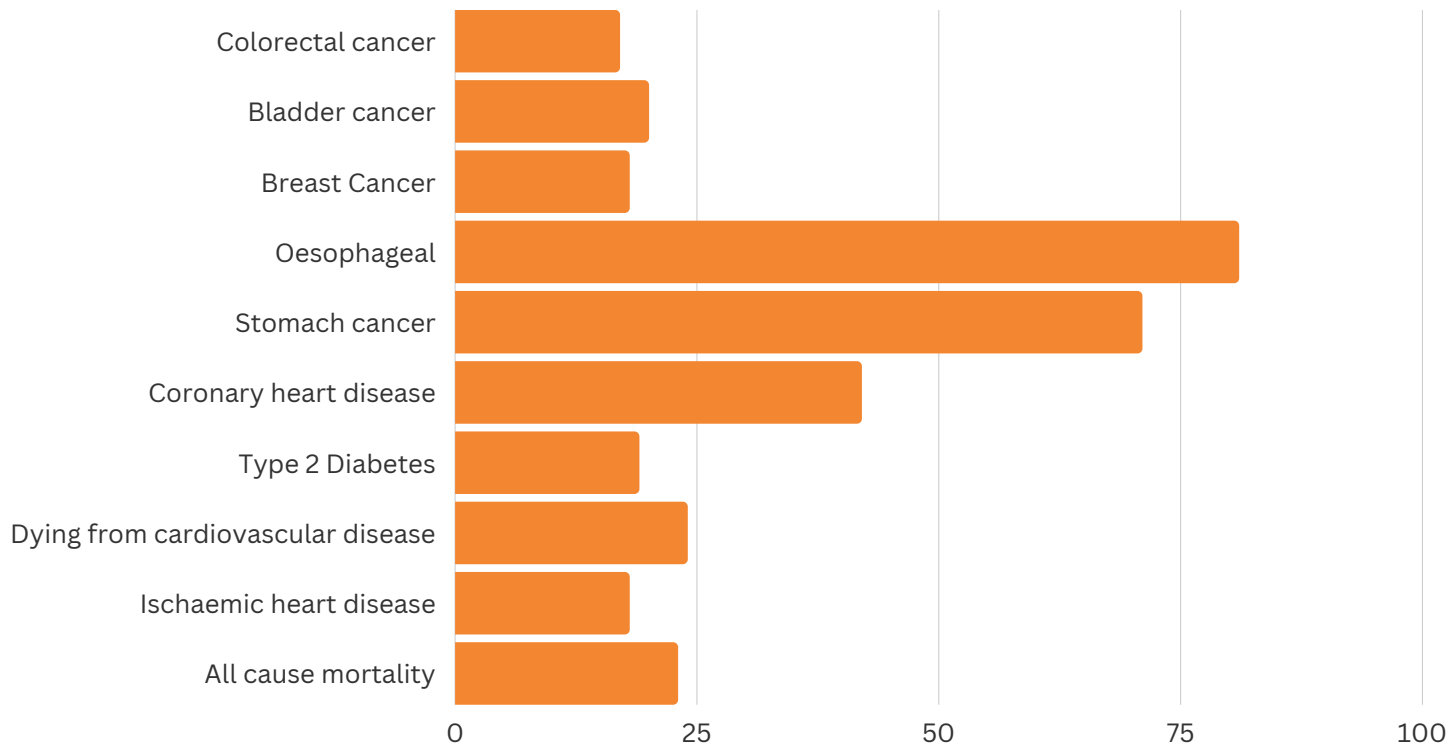
There is insufficient evidence to establish a safe level of processed meat consumption. Recent studies have shown an increased risk of bowel cancer associated with eating even small amounts (under 50g per day). The World Cancer Research Fund International recommends eating 'very little, if any' processed meat.

# Health risks linked to processed meat

There is also strong evidence linking processed meat to an increased risk of developing cardiovascular disease (CVD)<sup>11</sup>, ischaemic heart disease<sup>12</sup>, breast cancer<sup>13 14</sup>, bladder cancer<sup>15</sup>, gastric cancer<sup>16</sup>, other cancers<sup>17 18</sup>, type 2 diabetes<sup>19</sup>, as well as death from cardiovascular disease<sup>20</sup>, and all-cause mortality (i.e. death caused by any reason)<sup>21</sup>. In addition, a 2021 UK study found that, for every additional 25 grams of processed meat in a person's daily diet, the risk of dementia increased by 44 percent<sup>22</sup>.

This graph outlines findings from systematic review studies that report dose-response associations with health and processed meat consumption. Shown below are the reported increased relative risk levels associated with consuming each additional 50 grams of processed meat on average per day.

**Percent increase of relative risk associated with 50 gram increase of average daily processed meat consumption:  
Findings from systematic reviews**



# Why we need to eat less processed meat for the environment

## **The food system, and in particular livestock is a major contributor to climate change and environmental and health harms**

The food system contributes one third of all man made greenhouse gas emissions, half of which come from livestock<sup>8</sup>. Current levels of meat production and consumption contribute significantly to many types of environmental damage including deforestation, water scarcity, biodiversity loss, air and water pollution, and antimicrobial resistance. Despite being highly dependent on freshwater the agricultural sector is a major contributor to water scarcity and water pollution due to large-scale industrial farming and unsustainable practices. Agricultural run-off from pesticides and fertilisers sprayed on crops ends up in the soil, filtering down into our rivers - affecting not just the local environment, but also marine life when it reaches the ocean.

## **We are unlikely to meet our climate targets without reducing our meat consumption**

Shifting to a diet lower in meat and dairy has the potential to reduce food system emissions by up to 80% by 2050<sup>9</sup>. The Committee on Climate Change calls for a 35% to 50% reduction in meat consumption by 2050 as an essential step for the UK to achieve its climate change targets and limit global warming to 1.5°C.

## **Processed meat reduction offers the most health and environmental co-benefits**

Reducing overall meat intake is the overarching aim. However, as different types of meat have varying impacts on our health, reducing the types with the most negative impacts - processed meat - is a good place to start.

Reducing processed meat consumption could get us closer to meeting our diet-related climate and environment goals.



# Current dietary guidelines

National and international food-based dietary guidelines are important tools to help set food and nutrition policies that promote health, prevent diet-related diseases, and some support environmental sustainability objectives. It is a concern that few currently make specific recommendations to limit eating processed meat.

Processed meat is not included in global dietary guidelines, such as the FAO/WHO Guiding Principles<sup>23</sup> on sustainable healthy diets, given that a safe level of consumption has not been established. Ninety countries worldwide had dietary guidelines in 2019, but only 23% included a recommendation to limit meat consumption.<sup>24</sup> Only 13% specified restricting red and/or processed meat .

We need specific recommendations to reduce and avoid processed meat in the UK, like Sweden's national dietary guidelines, which recommend that people: "Eat less red and processed meat, no more than 500 grams a week. Only a small amount of this should be processed meat."<sup>25</sup>

Here are examples of [national guidelines](#) which include recommendations on processed meat:

Country	Guideline regarding processed meat
United Kingdom	Eat less red and processed meat. If you eat more than 90 g of red or processed meat per day, try to cut down to no more than 70 g per day.
Ireland	Limit processed salty meats such as sausages, bacon and ham.
Greece	Avoid processed meat.
Malta	Processed meats are to be eaten only occasionally.
Switzerland	Processed meat max once per week.
Belgium – Flanders	Eat less meat, particularly red and processed meat.
The Netherlands	Limit consumption of processed meat.

# Serving and selling less

## Public sector catering

There are many opportunities to make it easier for people to eat less processed meat within public sector catering. Setting clear targets for minimising or eliminating the amount of processed meat in public catering contracts, or within food service establishments located in public buildings (hospitals, prisons, government, Civil Service), could have a big impact. Local authorities should consider how to reduce processed meat intake within both their food strategy, and their climate strategy.

The action in public sector catering could also extend to school food standards. Currently all four nations in the UK have some degree of limitation on processed meats or 'meat products'<sup>\*</sup> as they are defined. Further restrictions should be considered within these guidelines, considering the health risks associated with processed meat consumption, e.g. making further reductions in the maximum weekly portions.

## Promoting and marketing less

Major retailers and food service operators could aim to reduce the sales of processed meat, and any support to sales through advertising and marketing.

This would also help them meet climate targets. Including processed meat in legislation to restrict the promotion of foods high in fat, salt and sugar (HFSS), would create a level playing field for business.

<sup>\*</sup>'Meat products' is defined as processed products that come from the processing of meat or from the further processing of such processed products. The cut surface will show that the product no longer has the characteristics of fresh meat. ([Food Standards Agency](#))



Local diets have global impacts. We have developed a [guide](#) and [film](#) to support local authorities to serve and source healthier, more sustainable meals.

# What can health organisations do?

Health organisations play a particularly important role in promoting sustainable and healthy diets. In the UK, doctors and civil society organisations are regularly rated the top most trusted groups<sup>26</sup>.

Opportunity exists for health and other civil society organisations to develop and promote sustainable food positions and policy to their members as well as the general public. As health organisations develop food policies that address health and environment, they should set policies and organisational guidance alongside targets to minimise and eliminate processed meat, for example in catering.

The British Dietetic Association Environmentally Sustainable Diet recommendations for the UK are called One Blue Dot. They advise avoiding processed meat (below).

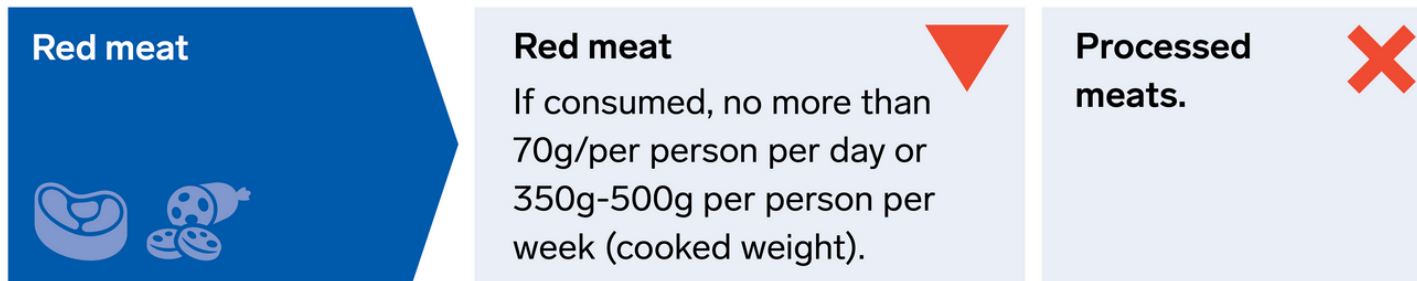
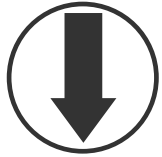


Figure shows British Dietetic Association recommendations for red meat and processed meats. Red arrow denotes reduction and red cross means avoid.

One of the World Cancer Research Fund International's Cancer Prevention Recommendations is to eat no more than moderate amounts of red meat, such as beef, pork and lamb, and eat little, if any, processed meat.



# Key messages



Reducing high meat consumption will get us closer to meeting both health and climate goals.



Processed meat, which has the most negative impact on health, should be a priority for meat reduction strategies.



Public sector caterers should aim to serve less processed meat in our schools, hospitals and other public institutions.



Health organisations should adopt food policies that address both health and climate change with explicit goals to reduce processed meat consumption.



Government dietary guidelines should be revised to provide specific limits on processed meat consumption.

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[Eating Better](#) is a movement for change of sixty organisations working to accelerate the transition from producing and eating too much meat and dairy to a fairer, healthier and more sustainable food system that is better the environment, our health, for land use, animal welfare and social justice.