

# Processed and smoked meats



**Meagan Atcheson explains why those tasty smoked meats are actually harmful to your body and have been linked to causing cancer.**

Processed meat is meat that has been preserved by curing, salting, smoking, drying or canning. Food products that have been categorised as processed meat include: sausages, hot dogs, salami, ham, cured bacon, salted and cured meat, corned beef, smoked meat, dried meat and canned meat like bully beef.

N-nitroso compounds are the cancer-causing substances that are believed to be responsible for some of the adverse effects of processed meat consumption. They are formed from sodium nitrite that is added to processed meat products. Sodium nitrite is used as an additive to preserve the red/pink colour of meat, to improve flavour by limiting the meat from going rancid, and to prevent the growth of bacteria as well as to improve flavour and cutting the risk of food poisoning.

Processed meat is the main dietary source of nitrosamines. Nitrosamines are mainly formed when processed meat products are exposed to high heat (above 130°C), such as when frying bacon or grilling sausages. Studies in animals indicate that nitrosamines may play a major role in the formation of colon cancer. This is supported by observational studies in humans, indicating that nitrosamines may increase the risk of stomach and colon cancer.

## SMOKED MEATS

Smoked meats may be enjoyable but the smoke itself that gives it that nice taste also contaminates the meat thus classifying them as a group 1 carcinogen. Harmful substances, called polycyclic aromatic hydrocarbons (PAHs) and heterocyclic amines (HCAs) form when meat is cooked at very high temperatures.

While pan-fried and grilled meats may also lead to the formation of these compounds, it's the smoke that carries these substances onto

the surface of the meat. They form when fluid and fat drip off the meat onto the heat source and form these harmful aromatic rings. Both HCAs and PAHs can change your DNA which can lead to a higher risk of colon and stomach cancer. Numerous observational studies in humans indicate that eating well-done meat may also increase the risk of breast and prostate cancer.

The level of HCAs can be minimised by using gentle cooking methods, such as frying under low heat and steaming. Please avoid eating charred, blackened meat.

It's not only smoked meat but also smoked cheeses (especially the rind) that you should be careful of.

Overall red, processed and smoked meats have also been linked with higher levels of strokes, heart disease and diabetes. Reducing consumption has been linked to a reduced risk of colon cancer as well.

There are currently no safe limits in how much smoked or processed meats you can eat. If you do choose to eat meat, try lean cuts like chicken, turkey or sirloin. Even fish shouldn't be smoked.

## MEDITERRANEAN IS THE WAY TO GO

Therefore, the recommendation is to consume minimal amounts of red and processed meats and to rather follow a Mediterranean, mainly plant-based diet. This includes eating mainly heart healthy fats like avo, olive oil, nuts and seeds as well as legumes (beans, lentils, chickpeas), fish (that isn't smoked) and plenty of fruit, vegetables and wholegrains.



### MEET THE EXPERT

Meagan Atcheson is a registered dietitian who focuses specifically in oncology. She is a plant-centric foodie who promotes a nourishing approach to health and wellness using evidence-based research and guidelines only.

