

Meat and Cancer Risk



This information sheet is about meat and how it influences your cancer risk. It is based on research evidence and has been written for the general public.

Key Messages

Red meats, which include beef, lamb and pork, are a valuable source of a number of different nutrients especially protein, iron, zinc and vitamin B12.

It is recommended that people who eat red meat consume less than 500g a week, with very little, if any, processed meat. It is also recommended that care is taken when preparing and cooking red meat to avoid excessive fat intake and eating charred or burnt meat.

Over recent years research has shown eating red and processed meats can increase risk of some cancers. Chicken does not seem to have the same effect and it is possible fish may help prevent some cancers.

Red meat

Red meats, which include beef, lamb and pork, are a valuable source of a number of different nutrients, especially protein, iron, zinc and vitamin B12. However, research clearly shows bowel cancer is more common amongst people who eat large amounts of red and processed meats than people who eat smaller amounts.

Scientists have found some chemicals in red and processed meat that may explain the increased cancer risk. One chemical is called haem. When haem is broken down in the bowel it seems to damage nearby cells, making cancer more likely to develop.

Cooking meat at very high temperatures and burning or charring meat creates chemicals called heterocyclic-amines which may contribute to the risk of stomach cancer. These chemicals can damage our cells, making them more likely to become cancerous. When barbecuing, grilling or pan-frying meat try not to overcook it and avoid eating any charred parts.

Processed meats

Processed meats, including sausages, frankfurters, salami, ham, bacon, pastrami and corned meats are more strongly linked to bowel cancer than fresh red meats. These meats usually contain high levels of salt and fat, have added nitrogen-based preservatives and are often smoked. All of these are likely to increase the risk of cancer.

Salt and salt preserved foods and smoked foods may increase the risk of stomach cancer but do not appear to be related to bowel cancer.

The nitrogen-based preservatives seem to be the main reason for the increased risk of bowel cancer for people who eat foods containing them regularly.

Other factors

Red and processed meats may also affect cancer risk because of the fat they contain, the way they are cooked and because they replace other foods like fruit and vegetables which have a protective effect against cancer.

The problem with the fat in meat is that it can contribute to weight gain. Being overweight and/or obese is one of the strongest risks for a number of different cancers.

What should I eat?

Plant foods, especially vegetables, fruit and wholegrain cereals contain substances which seem to protect against cancers. These foods should make up the most of what you eat each day. They are also low in fat and sugar and filling. When you eat these foods in place of meat and other foods which contain a lot of fat, they can, along with regular physical activity, help you to lose body fat and/or maintain a healthy weight.

How much meat?

If you eat meat, it is recommended you eat only small amounts of red meat. Do not eat meat every day and do not eat it at every meal: that is, less than 500g a week. Have red meat on no more than three to four days a week. Have a 65 to 100g serving of cooked meat at a time. That is about half a cup of mince, two small chops or two slices of roast meat or the amount that would fit into the palm of your hand. That adds up to less than 400g a week.

Choose lean cuts of meat, cut off any fat you can see then bake, grill or casserole meat without adding any extra fat or oil.

The Cancer Society recommends you eat very little or no processed meats. If you are fond of processed meats, keep them only for occasional special treats.

Choose other protein foods such as chicken, fish, eggs or legumes such as lentils, chick peas, baked beans, red kidney beans, split peas to replace red and processed meats in meals.

Tips for choosing healthy meals

- Make vegetables, cereals and fruit the main part of your meal and have smaller servings of meat. Fill at least half your plate with vegetables or salad.
- Try to have fish several times a week. Steam, grill or bake it rather than fry it.
- Have some legume-based meals each week. Make casseroles, soups and salads with lentils, chick peas or dried beans (for example red kidney or cannellini beans and dried peas).
- When you eat meat make sure it is lean. Avoid cuts that have fat streaking or marbled through the meat that you cannot cut off. Trim any fat you can see before cooking.
- Grill, bake, microwave or casserole meats so you do not need to add extra fat.
- When barbequing, grilling or pan-frying meat try not to overcook it and cut off any burnt or blackened parts.
- When having chicken, remove the skin and any visible fat before cooking.
- Add vegetables, dried peas, beans and lentils to casseroles, soups, meat loaves, meatballs, meat patties and bolognaise sauce so you eat less of the meat.
- Stir-fries are a good way to have small amounts of meat and lots of vegetables.
- For non-meat meals try vegetable frittatas, omelettes, curries, risottos, pasta sauces, casseroles and soups.