

Meat and cancer

There is now a clear body of evidence that bowel cancer is more common among those who eat the most red and processed meat. Processed meat consumption has also been strongly linked to a higher risk of stomach cancer.

The World Health Organization has classified processed meats – including ham, salami, bacon and frankfurts – as a Group 1 carcinogen which means that there is strong evidence that processed meats cause cancer. Red meat, such as beef, lamb and pork has been classified as a ‘probable’ cause of cancer. These classifications do not indicate the risk of getting cancer, rather how certain we are that these things are likely to cause cancer.

Cancer Council estimates that in 2010, one in six (or 2600) new bowel cancer cases in Australia were associated with consuming too much red meat and processed meat.

Lean red meat can be an important source of iron, zinc, vitamin B12 and protein. In terms of cancer risk there is no reason to cut meat completely from your diet, but there are steps you can take to reduce your risk.

There is not enough evidence to draw any conclusions on eating poultry and the risk of cancer. However, eating [fish](#) may help to reduce the risk of bowel, breast and prostate cancer.

Meat may affect cancer risk because of chemicals formed during digestion that have been found to damage the cells that line the bowel. Other likely factors include the fat content, and the way it is processed or cooked; or because big meat eaters miss out on other protective foods such as [fruit and vegetables](#) or [wholegrain cereals](#).

How much meat should I eat?

To reduce your risk of cancer, Cancer Council recommends eating no more than 700 grams (raw weight) of red meat per week. For good health we need less than this. Aim for a small 65g serve of cooked meat each day or 2 serves (130g) 3-4 times a week. Avoid consuming more than 455g of cooked lean red meat each week.

Cancer Council recommends people limit or avoid eating processed meats, which are high in fat, salt and nitrates. Because of the high fat and salt content of processed meats, the Australian Guide to Healthy Eating considers processed meats to be ‘discretionary choices’ that should only be eaten occasionally. (Examples of other discretionary choices that should only be eaten occasionally include fast food, cakes, confectionary and chips).

Try to choose lean cuts of meat or chicken, have more fish and make sure you eat plenty of plant-based foods such as fruit, vegetables and wholegrain cereals.

What is a recommended serve?

The following are examples of 1 serve of meat:

- ½ cup mince
- 2 small chops
- 2 slices roast meat.

This should roughly fit into the palm of your hand.

Other substitutes for 1 serve of red meat include:

- 65-100g cooked chicken
- 80-120g cooked fish fillet
- 2 small eggs
- 1/3 cup cooked lentils, chick peas, split peas, dried or canned beans
- 1/3 cup nuts e.g. peanuts or almonds.

Tips and ideas on meat and low-fat cooking methods

- Fill half your dinner plate with vegetables and don't think of meat as the main part of the meal.
- Include at least three different coloured vegetables with your main meal.
- Have some legume-based meals each week. Legumes include lentils, chickpeas, baked beans and red kidney beans. There are many types of dried peas and beans, which can be added to casseroles, soups or salads.
- Buy lean cuts of meat – with the fat trimmed off and little marbling of fat.
- Trim any visible fat off the meat before you cook it.
- Choose chicken pieces without the skin or remove skin before cooking.
- Canned fish like tuna and salmon make an easy sandwich with salad.
- Adapt your recipes to include more vegetables, eg add carrot, celery and peas to Bolognese sauce.
- For stir-fries, reduce the amount of meat and add extra vegetables.
- Experiment with vegetable risottos, frittatas made with vegetables and eggs, hearty vegetable soups or vegetable curries.

Barbecues and charred meat Some research suggests that burnt or charred meat may increase the risk of cancer. Substances called heterocyclic amines are formed in foods that are cooked at high temperatures and blackened or charred. In animal studies, heterocyclic amines are carcinogenic (cancer causing). However, the evidence in human studies is not clear. It is recommended not to overcook or blacken meat on the barbecue. Marinating meat first prevents foods from charring. As well as keeping potential cancer causing agents down in the meat, marinating also keeps meat tender and adds flavour to your meal. You can also use gentler cooking methods such as casseroles, boiling or microwave heating rather than high-temperature grilling, pan-frying or barbecuing when cooking meat.