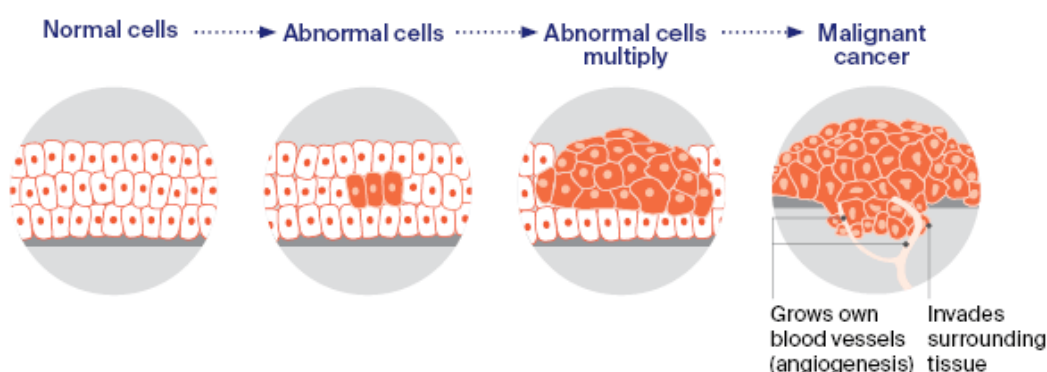


Physical activity, nutrition and cancer

What is cancer?

Cancer is a disease of the body's cells. Normally, cells grow and multiply in a controlled way. However, sometimes cells become abnormal and keep growing. Abnormal cells can form a mass called a tumour. Cancer is the term to describe collections of these cells, growing and potentially spreading within the body.



How do fruit, vegetables and wholegrains reduce cancer risk?

Fruit, vegetables and legumes are rich in vitamins, minerals, fibre and contain antioxidants, natural chemicals that can reduce the impact of some cancer-causing agents (carcinogens). They also contain a wide range of phytochemicals that can have cancer-protective effects.

Fibre helps to reduce cancer risk in four ways:

1. Fibre increases the bulk of stool, trapping carcinogens and reducing the time spent in the gut.
2. Good bacteria in the colon convert fibre into short-chain fatty acids which help to stop cells in the intestine becoming cancerous.
3. Fibre helps us feel fuller for longer, therefore can help in maintaining our healthy weight.
4. Fibre reduces how quickly carbohydrates are absorbed into the blood, reducing risk of insulin resistance which is related to cancer risk and other diseases such as diabetes.

Does eating red and processed meat increase cancer risk?

The World Health Organization classifies processed meat as a Group 1 carcinogen, which means that there's convincing evidence that it causes bowel cancer. Red meat is classified as a Group 2A carcinogen, which means it probably causes bowel cancer.

By reducing your intake of red meat and avoiding processed meat you can reduce your risk of cancer.

Researchers are still investigating how red and processed meat cause cancer. However, there are several possible reasons:

- Red and processed meat contain haem iron, which makes meat red in colour. When haem is broken down in the gut, it forms chemical compounds which can damage the cells lining the bowel and lead to cancer.
- The preservatives used in processed meats (nitrates and nitrites) are also broken down into chemical compounds that can change cells in the gut and cause cancer.
- Cancer causing chemicals develop when meat is burnt or charred.

What is a healthy diet?

Cancer Council recommends following the Australian Dietary Guidelines which encourages adults to:

- Eat at least 2 serves of fruit and 5 serves of vegetables each day.
 - 1 serve fruit = 150g of fresh fruit or 1 medium piece (e.g. apple, orange, banana) or 2 small pieces (e.g. apricots, kiwi fruit, plums) or 1 cup of chopped or canned fruit
 - 1 serve veg = 75g fresh veg or ½ cup cooked veg or legumes, 1 small potato
- Depending on your age and activity level, eat at least 4 serves of grain foods, mostly wholegrain or wholemeal foods every day (or ensure about half your daily serves of breads and cereals are wholegrain or wholemeal)
 - 1 serve wholegrains = 1 slice of bread, ½ cup cooked rice, pasta, noodles, ¼ cup muesli, ½ cup cooked porridge/oats
- Eat at least two and a half serves of dairy foods (milk, cheese and yoghurt) each day and to choose reduced fat varieties of dairy foods where possible.
 - 1 serve dairy = 1 cup of milk, 40g cheese, 200g yoghurt
- Eat no more than 700 g raw or 455 g cooked, lean red meat each week and that you eat little, if any, processed meat.
 - 1 serve meat = 90-100g raw or 65g cooked, ½ lean raw mince, 1 lamb chop, ½ cup diced raw meat

How can people still eat a healthy diet when struggling with rising cost of living?

The costs of our groceries are increasing which can make it feel like a real challenge to maintain a healthy, balanced diet. Here are some tips to help people eat well and save money:

- Buy in season - not only are fruit and vegetables freshest and most delicious when they're in season, this is also when they are the best value. When foods are in season, they are at their greatest supply and high supply means cheaper prices.
- Frozen fruit and vegetables are also nutritious, quick to prepare and often a cheaper way to buy fruit and vegetables.
- Plan meals ahead of time - try to choose meals that share some of the same ingredients to cut costs and reduce food waste by using the leftover ingredients.

Why are sugary drinks so bad for you?

Sugary drinks are packed full of 'empty kilojoules' which means they contain a lot of sugar but have no nutritional value. Sugary drinks provide excess kilojoules which can lead to weight gain and obesity. Being overweight or obese can lead to health problems like type 2 diabetes, heart disease and some types of cancer.

Is fruit juice considered a sugary drink?

Fruit juice, which by law must have more than 95% fruit juice, can offer other nutritional benefits such as vitamin C and other nutrients. A standard serve of fruit juice is 125ml or ½ cup, according to the Australian Dietary Guidelines. If you have juice, limit it to this amount or better still, drink water and eat the whole fruit instead – it's more filling and has the added benefit of fibre.

Is it okay to have 'diet' soft drink instead?

Foods and drinks containing intense sweeteners are usually highly processed and therefore it is recommended that these products are not consumed regularly.

A person who regularly consumes sugary drinks may find that replacing their usual drink choice with a "no sugar" or "diet" version is a good first step to ditching sugary drinks, however, "no sugar" soft drinks are still bad for your teeth therefore everyone should still aim to make water their everyday drink choice.

There are several types of artificial sweeteners found in 'diet' soft drinks, all of which are approved and regulated by the Food Standards of Australia and New Zealand (FSANZ). There have been rumours that some artificial sweeteners can cause cancer. There is no evidence to suggest that artificial sweeteners found in 'diet' drinks cause cancer. In Australia, FSANZ sets acceptable levels for all types of additives including artificial

sweeteners, which are allowed to be used in drinks. These levels are regularly reviewed and adjusted by FSANZ according to the available scientific evidence.

How can a higher body weight increase cancer risk?

Being overweight or obese increases the risk of a range of health conditions, including heart disease, type 2 diabetes and 13 types of cancer.

Our cells replicate regularly as part of our normal body process. Fat cells cause an increase in growth factors, hormones and inflammation which may change how the cells in our body divide. This can increase the chance of mutated cells being produced, which then may develop into cancer.

The causes of weight gain are complex but may include limited access to healthy foods and spaces that allow for physical activity, medications that promote weight gain and aggressive marketing of unhealthy foods.

Eating well and being physically active will reduce cancer risk, regardless of a person's body weight. These behaviours may also help to avoid weight gain, maintain a healthy weight for you or lose weight to reduce cancer risk.

How does being physically active reduce cancer risk?

Research shows that there are many ways physical activity can reduce cancer risk. One way, that physical activity can reduce risk is by regulating signals and hormones, such as insulin-like growth factor and oestrogen, to maintain the correct rate of cell division in our bodies. Physical activity also affects the speed that food passes through the bowel, reducing contact with any potential carcinogens from our diet.

What are the benefits of being physically active?

Regular physical activity can:

- Decrease your risk of cancer and chronic disease
- Improve cardiovascular fitness
- Help maintain a healthy body weight
- Improve bone density
- Reduce stress and improve mood
- Improve overall health and wellbeing

How much physical activity is recommended?

To reduce your cancer risk, the more physically active you are the better. As your fitness improves, aim for at least 60 minutes of moderate activity or 30 minutes of vigorous

activity on most days. It doesn't have to be continuous; three 10 minutes sessions are also good. Each activity session should be at least 10 minutes.

Moderate physical activity includes any activity in which you can still hold a conversation, such as brisk walking.

Vigorous physical activity includes any activity that makes you 'huff and puff', such as fast swimming, cycling or jogging.

For more information

Visit our website <https://www.cancer.org.au/cancer-information/causes-and-prevention/diet-and-exercise>

or contact our cancer prevention team at prevention@cancertas.org.au