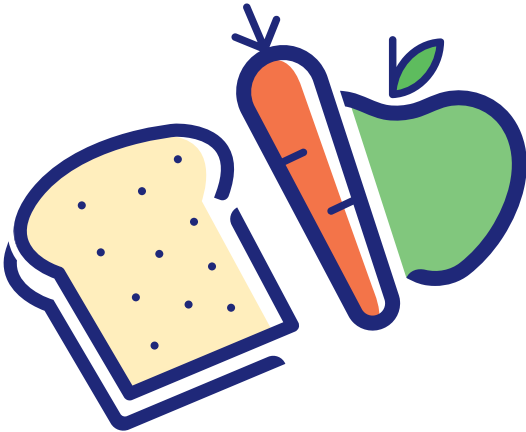


Eat fruit, vegetables, wholegrains and fibre

Reduce your cancer risk



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13 11 20 or visit cancercouncil.com.au**

Reducing your cancer risk

A healthy lifestyle can prevent one third of cancers. To reduce your risk of cancer, Cancer Council NSW recommends these lifestyle choices:

- **Eat at least 5 serves of vegetables and 2 serves of fruit each day**
- **Eat a variety of wholegrain, wholemeal and high-fibre foods, such as bread, pasta, oats, rice, legumes (beans, peas and lentils) and nuts**
- Limit red meat and avoid processed meat
- Move more, sit less and be active for at least 30 minutes each day
- Be a healthy body weight
- Avoid high-kilojoule foods and sugary drinks to prevent weight gain
- Choose foods low in salt
- Limit drinking alcohol
- Don't smoke and avoid other people's smoke
- Protect your skin from the sun
- If you can, breastfeed your baby for at least 6 months

Q: What are the health benefits of fruit, vegetables, wholegrains and legumes?

Plant foods such as fruit, vegetables, wholegrains, legumes, nuts and seeds contain many nutrients including unsaturated fats, vitamins, minerals, antioxidants, phytochemicals, fibre and protein. These are important for health.

Fruit and vegetables contain a variety of natural chemicals called phytochemicals that give them their bright colours. Phytochemicals might help protect cells in the body from damage that may lead to cancer. Examples of phytochemicals are lycopene found in tomato and carotenoids found in yellow and orange vegetables.

Wholegrain foods include wholemeal breads, rolled oats, wholemeal pasta, brown rice, barley, popping corn, cracked wheat (burghul) and quinoa. Wholegrain foods contain the outer layer of the grain, which contains fibre, vitamins, minerals and phytochemicals.

Wholemeal foods are made from wholegrains that have been crushed to a finer texture. Nutritionally, wholegrain and wholemeal foods are very similar.

Legumes include chickpeas, split peas, kidney beans, cannellini beans, baked beans, soybeans and lentils. They are particularly high in fibre and are good alternatives to meat as they are higher in protein than most other plant foods.

TYPES OF FIBRE



Three different types of fibre can be found in fruit, vegetables, wholegrains, legumes, nuts and seeds. All three types of fibre work together to keep the digestive system healthy.

Soluble fibre

attracts water and slows the time it takes for food to pass through the stomach and small intestine. This lowers blood glucose levels after eating and lowers cholesterol levels. It is found in fruit, vegetables, oats, barley and legumes.



Insoluble fibre

helps keep you regular. It is found in wholegrains, nuts, seeds and skins of fruit and vegetables.



Resistant starch

is starch that passes through the stomach and small intestine undigested. In the large intestine it encourages the growth of good bacteria to keep the bowel healthy. It is found in unripe bananas, beans and lentils, and cooked and cooled potato, rice and pasta.



Q: Does eating fruit, vegetables, wholegrains and high-fibre foods reduce cancer risk?

There is strong evidence that eating fruit, vegetables, wholegrains and high-fibre foods reduces the risk of bowel cancer.

Bowel cancer is one of the most common cancers in Australia, affecting about 15,000 people each year. About 2600 bowel cancers can be attributed to not eating enough fibre. Eating more fruit and non-starchy vegetables may also reduce the risk of mouth, throat and digestive tract cancers.

It is estimated that about 1300 cases of bowel cancer could be prevented if people ate the recommended 2 serves of fruit and 5 serves of vegetables every day.

Being overweight or obese is also a strong risk factor for many types of cancer including bowel, breast (after menopause), endometrium, kidney, pancreas, liver and oesophagus. Eating fruit, vegetables, wholegrains and high-fibre foods can help you achieve and maintain a healthy weight because they are low in energy, high in fibre, full of nutrients and filling.

Q: How do fruit, vegetables, wholegrains and high-fibre foods reduce cancer risk?

Researchers are still investigating how these foods reduce cancer risk. However, there are several possible reasons:

- They contain fibre that helps move waste through the bowel faster, limiting the time harmful compounds stay in contact with the bowel lining.
- The fibre can also be fermented by good bacteria in the gut producing compounds that can protect the bowel lining.
- They contain a wide range of phytochemicals that have cancer-protective effects.
- They help maintain a healthy body weight.

As it is likely that the combination of nutrients found in fruit, vegetables, wholegrains and high-fibre foods helps protect against cancer, eating wholefoods is recommended rather than taking supplements.



Q: How much fruit, vegetables, wholegrains and high-fibre foods should I eat?

Cancer Council NSW and the *Australian Dietary Guidelines* recommend adults and older children eat the following:

- About 4–6 serves of different bread and cereal foods each day with at least two-thirds wholegrain or wholemeal varieties.
- Two serves of different fruit and at least 5 serves of different vegetables, including legumes, each day. Different types of fruit and vegetables contain different nutrients so it's best to eat a variety of colours including red, green, yellow, white, purple and orange.
- Small serves (30 g) of nuts, seeds, and nut and seed pastes.

It is best to eat whole fruits and vegetables rather than drink juice. The fibre in fruit and vegetables is lost when they are juiced. If you drink juice, limit to a 125 mL serve occasionally. Choose 100% juice with no added sugar and dilute with ice, still or sparkling water. A better option is a fruit smoothie as you use the whole fruit and keep all the fibre – just be careful of the serving size.

WHAT IS A SERVE?



A serve of fruit



- 1 medium-sized piece fruit, e.g. apple, pear, banana or orange
- 2 smaller pieces fruit, e.g. plums, apricots or kiwi
- 1 cup diced or canned fruit pieces (no added sugar)
- 125 mL (½ cup) 100% fruit juice (occasionally)
- 1½ tablespoons sultanas or 2 dried apricots (occasionally)

A serve of vegetables or legumes



- ½ cup cooked vegetables or legumes
- 1 cup salad or raw vegetables
- ½ medium potato, with the skin on

A serve of wholegrain or wholemeal food



- 1 slice wholemeal bread
- ½ medium wholemeal bread roll
- ½ cup cooked brown rice, wholemeal pasta or noodles
- ½ cup cooked porridge
- ⅔ cup wholegrain breakfast cereal
- ¼ cup untoasted muesli

Q: How can I eat more fruit, vegetables, wholegrains and fibre?

- Start with vegetables and wholegrains and build a meal around them.
- Fill at least half your dinner plate with a variety of vegetables.
- Serve vegetable soup or salads with meals.
- Adapt your recipes to reduce the amount of meat and include more vegetables and legumes, e.g. add carrot, celery, mushrooms, peas and lentils to bolognaise sauce and chickpeas to a curry.
- Have a meat-free meal at least once a week. Try a vegetable-based pasta, risotto, frittata, soup or curry.
- Keep frozen and canned fruit (no added sugar), legumes and vegetables on hand for variety and convenience, e.g. frozen berries, mango, peas or green beans; canned corn, beetroot, tomatoes, asparagus or kidney beans.
- Cook vegetables in different ways, e.g. oven roasted, grilled or pan-fried with a spray of olive oil.
- Pick vegetables and fruit in season – they taste better and cost less.
- Choose wholemeal or fibre-enriched bread and pasta.



MEAL AND SNACK IDEAS

Breakfast

- wholegrain breakfast cereal, e.g. porridge, muesli or wheat flake biscuits with fruit and reduced-fat milk or yoghurt
- fruit salad with reduced-fat yoghurt and a muesli topping
- fruit or vegetable, oat-based smoothie made with reduced-fat milk or milk alternative
- mushrooms, tomato, avocado or baked beans (reduced salt) on wholemeal or wholegrain toast

Lunch

- sandwich, wrap or roll made with wholemeal or wholegrain bread and salad
- vegetable-based salads with brown rice, wholemeal pasta or chickpeas, or tabouli made with cracked wheat
- vegetable pizza made on wholemeal pita bread
- barley and vegetable soup
- brown rice sushi
- vegetable rice paper rolls

Dinner

- brown rice with a casserole or curry
- wholemeal pasta with vegetable sauce
- stir-fry with vegetables and wholegrain noodles
- cracked wheat added to homemade patties or rissoles

Snacks

- wholemeal or wholegrain crispbread with tomato and hummus
- plain air popped or microwaved popcorn
- muffins, pikelets and scones made with wholemeal flour and fruit or vegetables
- muesli bars containing mostly oats, nuts and seeds
- wholemeal fruit and nut bread, thinly sliced
- fresh or canned fruit, in natural juice
- vegetable sticks and a vegetable-based dip, e.g. hummus or tzatziki
- small handful of dried fruit
- fruit or vegetable kebabs
- baked beans, salt reduced



SEE THE OTHER BROCHURES IN THIS SERIES

- Eat less red and processed meat
- Drink less alcohol
- Be physically active
- Be a healthy weight

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