

Vegetables, Fruit and Cancer Risk

This Information Sheet is about vegetables and fruit and how they influence your cancer risk. It is based on research evidence and has been written for the general public.

Key Messages

Vegetables and fruit are high in nutrients that are potentially protective against cancer.

Obesity is a known risk factor for cancer of the colon, breast, endometrium, kidney and oesophagus. Vegetables and fruit play an important role in helping to maintain a healthy body weight.

It is recommended that you eat at least two servings of fruit and three of vegetables every day.

Vegetables and fruit, along with other plant foods, should form the bulk of what we eat each day. They are a very important source of vitamins, minerals and fibre and also contain substances such as antioxidants, not contained in other foods, which help protect the cells in the body from damage.

Particular kinds of fruit and vegetables are sometimes called 'super foods' and are thought to prevent all cancer. It is true that a diet with plenty of fruit and vegetables has a protective effect and could reduce the risk of many cancers including mouth, oesophagus (gullet), and stomach cancers. However, no single fruit or vegetable is a magic solution for cancer prevention.

Perhaps even more important than the antioxidants in fruit and vegetables, is the way they help maintain a healthy body weight when they replace other foods high in sugar, fat and energy. Being overweight or obese increases the risk of many chronic diseases like diabetes, heart disease, stroke and some kinds of cancers. Being obese increases the risk of cancer of the oesophagus, pancreas, bowel, breast (after menopause), endometrium, kidney and gallbladder.

How much should you eat?

Eat at least five different servings of fruit and vegetables a day. Try to have at least two servings of fruit and three of vegetables every day.

Choose a variety of different coloured vegetables and fruits as these are likely to contain different nutrients. It doesn't matter if they are tinned, dried, frozen or fresh, they still count towards your daily portions. If you are having tinned fruit choose fruit in fruit juice or those that have no added sugar rather than fruit in syrup.

Lentils, beans and other pulses only count towards one of your daily servings of vegetables as they don't contain as many nutrients as other fruits and vegetables. Similarly, fruit juices and smoothies can only be counted as one serving each day as they can be high in sugar and low in fibre.

Potatoes are nutritious but are classified as starchy foods and don't count towards your vegetable servings. Fried chips don't count either.

A serving is about one handful. Adults should have an adult sized handful and children should have a child-sized handful that will fit into their hand. An adult-sized serving is:

- A medium-sized apple or other similar sized fruit
- A banana
- Two plums, apricots or other similar sized fruit
- Three heaped tablespoons of cooked vegetables such as carrots, peas, broccoli
- A desert bowl sized salad
- A small glass (150 ml) of pure unsweetened fruit juice
- Half a cup of stewed fruit.

Can you get the same health benefits by taking vitamin supplements as eating lots of fruit and vegetables?

No. Research has shown that vitamin supplements do not have the same health benefits as the vitamins in fruit and vegetables. The best way to get the vitamins and minerals you need is to eat a healthy, balanced diet with a variety of fruit and vegetables.

Should I be worried about pesticides on fruit and vegetables?

No. Tiny amounts of pesticides are sometimes found on the skin of fruits and vegetables. This is why it is a good idea to rinse or peel them before eating. However, overwhelming evidence has shown that these small amounts

of pesticide do not cause cancer. Agricultural or farm workers who are exposed to high doses of these chemicals during their work may be at higher risk of some types of cancer, including leukaemia and lymphoma, but the risk is not the same as when you eat small amounts on some fruit and vegetables.

Should I buy organic?

Organic fruit and vegetables do not appear to protect against cancer any better than fruit and vegetables grown by other methods.

Tips on how to eat more fruit and vegetables

- Shop for fresh fruit and vegetables weekly to ensure you have a fresh supply available.
- Enjoy fruit as a snack or for dessert.
- Add fresh or canned fruit as a topping on breakfast cereal.
- Fill at least half your dinner plate with vegetables.
- Include at least three different coloured vegetables with your main meal.
- Include salad with lunch or choose dishes which include plenty of vegetables.
- Use frozen, dried or canned vegetables and fruit if they are cheaper or if fresh ones are not available.
- Adapt your recipes to include more vegetables. Add vegetables to casseroles, soups, meat loaves, meatballs, meat patties and bolognese sauce.
- Stir-fries are a good way to have small amounts of meat and lots of vegetables.
- Try vegetable frittatas, omelettes, curries, risottos, pasta sauces, casseroles and soups.