



# Fruits and vegetables

## Benefits of fruits and vegetables

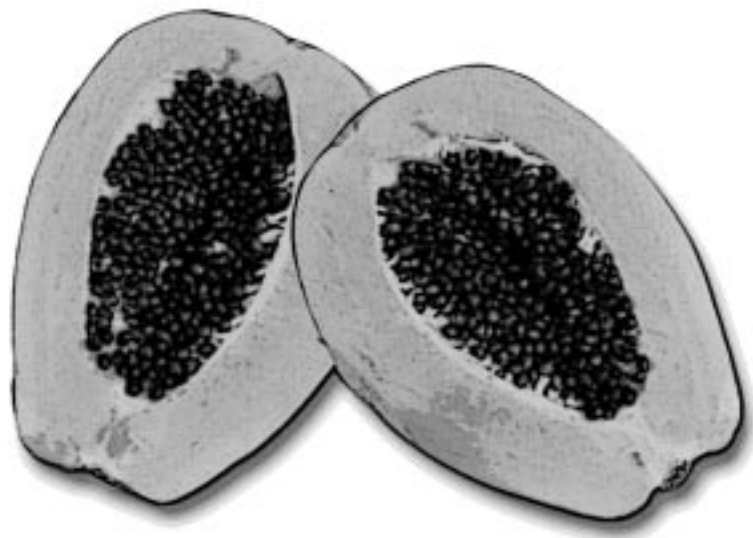
Eating plenty of fruits and vegetables is good for our health. They play an important role in preventing many health problems, including obesity, diabetes, cancer, heart disease, and vitamin A deficiency. Evidence shows that:

- ✦ Low fruit and vegetable intake is among the top 10 risk factors for early death.
- ✦ Up to 2.7 million lives worldwide could be saved each year if people ate at least the recommended amounts of fruits and vegetables.
- ✦ Eating a variety of vegetables and fruits supplies us with important vitamins, minerals, fibre and other substances, which help to ensure a balanced diet.
- ✦ Worldwide, low intake of fruits and vegetables, cause about 19% of gastrointestinal cancer, about 31% of ischaemic heart disease and 11% of stroke.

## What are fruits and vegetables?

Fruits include:

- ✦ papayas, ripe eating bananas, oranges, pineapples, watermelons, mangoes, pandanus, noni
- ✦ fruit and fresh coconut juice, but only one serving per day
- ✦ canned fruits such as canned pineapple, peaches or fruit salad in juice
- ✦ dried fruits such as sultanas, raisins, banana, papaya (unsweetened)
- ✦ frozen fruits



Vegetables include:

- ✦ canned vegetables such as canned tomatoes and canned corn (unsalted)
- ✦ leafy vegetables (e.g. bele, taro leaves, pumpkin, spinach), chinese cabbage, ferns, beans, pumpkin, onions, tomatoes, mushrooms, seaweed, eggplants, capsicums, carrots, broccoli.
- ✦ frozen vegetables
- ✦ vegetable juice (e.g. tomato juice (unsalted))



The following do not count as fruits and vegetables:

- ✦ starchy root crops such as taro, cassava, yam, sweet potato, potato, and plantain/cooking banana (these are starchy energy foods)
- ✦ beans, lentils and dahl (these are body-building foods)
- ✦ nuts and seeds (these are body-building foods)
- ✦ jams and marmalades, pickles, chutneys \*
- ✦ mature coconut - coconut cream, coconut milk, coconut meat and germinating embryo.
- ✦ ketchups or tomato sauce \*

## What are in fruits and vegetables?

Fruits and vegetables contain many important nutrients along with other natural substances (antioxidants, phytochemicals) that protect us from various health problems. Fruits and vegetables differ in the amount of nutrients they contain. For example, some fruit may be particularly high in vitamin C, while others may be very high in potassium.



\* Although these are made from fruits and vegetables, they are highly processed, which means their vitamin and mineral content have been reduced. In addition, chutneys have added ingredients such as sugar and salt, which people should eat less of.

Some of the important nutrients in fruits and vegetables are:

- ✦ **antioxidants**, that help repair and protect the cells from oxidant damage, which is thought to contribute to the development of cancer, heart disease and other health problems. Fruits and vegetables contain vitamin C, beta carotene and other substances called flavonoids that act as antioxidants.
- ✦ **beta carotene**, which is converted by the body to vitamin A.
- ✦ **fibre**, which is found in all fruits and vegetables (and some other foods) and helps to keep the gut healthy, as well as reducing blood glucose and fat levels.
- ✦ **folate** (or folic acid), one of the B vitamins, which are essential for good health.
- ✦ **potassium**, an essential mineral that plays a role in regulating and reducing blood pressure.

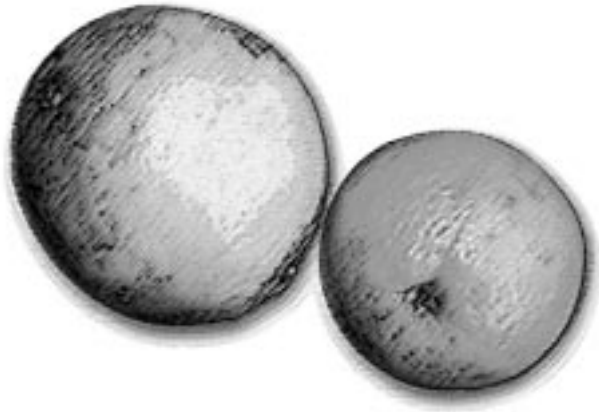
Fruits and vegetables are also generally low in:

- ✦ **fat**: nearly all fruits and vegetables are extremely low in fat, containing only very small amounts. The only exception are avocados, which are high in fat, but mainly monounsaturated fats, which are the healthiest type.
- ✦ **calories**: most fruits and vegetables are high in water and fibre, and low in fat, and so are low in calories. This means that they can form a generous part of a weight controlling diet.
- ✦ **sodium**: fresh fruits and vegetables are low in sodium

## Supplements and juices

Many supplements claim to offer all the protection of fruits and vegetables in an easy-to-take pill or special drink. Unfortunately, none of these supplements offer the wide range of nutrients, fibre and other protective substances (antioxidants) found in fruits and vegetables. In particular, juices do not contain the fibre found in whole

fruits and vegetables. This lack of fibre makes it easier to drink a lot of juice without feeling full, and drinking lots of juice can contribute to weight gain. It's easy to drink the equivalent of 5 oranges (or mangoes), but difficult to eat 5 complete oranges (mangoes)!



## How much fruit and vegetables should we eat?

The World Health Organization recommends that adults eat at least 400 g of fruits and vegetables per day. This equals 5 or more portions, based on a typical portion size of 80 g.

### How much is a serving or portion of fruits and vegetables?

Some examples of servings that equal 80 g include:

- ✦ a handful of grapes (about 12) or a couple of keys of pandanus
- ✦ about a one-inch-thick slice of a large papaya, or a quarter of a small papaya, a medium-sized banana
- ✦ 2-3 pieces of fruit such as small guavas or plums
- ✦ 3 heaped tablespoons of stewed or canned fruit in juice (half of a small can)
- ✦ 1 small glass (150 ml) of fruit juice (including fresh coconut)
- ✦ 1 heaped tablespoon of dried fruit such as raisins, or dried pandanus fruit, or 3 dried apricots

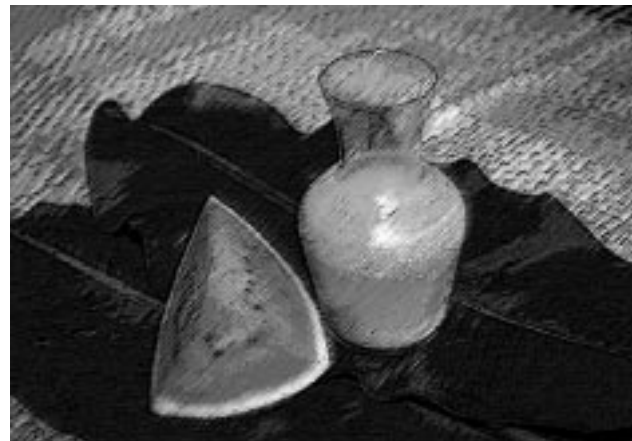
- ✦ 3 heaped tablespoons of cooked vegetables
- ✦ a cereal bowl-sized salad
- ✦ 1 large tomato

### Do fruits and vegetables have to be fresh?

No. Fresh, frozen, canned, pure fruit juice and dried fruit and vegetables all count towards your target, although fresh foods are usually the most nutritious and should be chosen as often as possible. If buying dried or canned fruit, choose unsweetened varieties. Canned and dried vegetables should be unsalted.

### Does drinking 5 glasses of fruit juice equal 5 servings?

Juice (fruit or vegetable) only counts as 1 portion a day, regardless of how much is drunk, because it has very little fibre. It is also likely to lose some vitamins once juiced (particularly vitamin C, which is easily destroyed by light and air).



### Is it ok to eat fruit but not vegetables?

No. It's really important to eat both fruits and vegetables, and to eat a variety of types. No two fruits or vegetables are the same nutritionally, so eating just one type, or missing out on vegetables altogether will limit the benefits that you get.

### Is jam or ketchup a fruit or vegetable?

These highly processed foods have very little of the natural benefits of fruits and vegetables, and so do not count towards your five servings a day. Cooking and processing fruits and vegetables reduces the vitamins and minerals they contain.





lunch and dinner, and fruit during the day as a snack. Include salad in sandwiches, add vegetables to soups and stews or make separate vegetable dishes to go with your other dishes.

### How should I prepare fruits and vegetables?

Fresh produce is always the best choice. Generally, storing, soaking, drying, fermenting and cooking reduce the amount of nutrients in fruits and vegetables. Consequently, imported carrots, which have been travelling and stored for some time, will probably contain less vitamins than locally grown ones. If well stored, frozen vegetables will maintain their vitamins well, as the freezing process slows the loss of vitamins.

Jam is very high in sugar, while ketchup is high in both sugar and salt. The high salt and sugar content of the preserved mango skins (that are sold around the region), also make them poor choices.

Interestingly, evidence shows that ketchup is a good source of antioxidants, although the high sugar and salt content means that it isn't something that should be eaten too often.

### What about mixed foods?

If you eat cake that contains dried fruit, or a sandwich that includes some salad, these can contribute towards your fruit and vegetable intake. Simply estimate the amount of fruit or vegetable in the food. Often these types of foods contain very small amounts – less than a serving. Also, foods such as cakes are generally high in fat and sugar, so are not healthy choices.

### How can I include at least 5 fruits and vegetables a day?

You need to build them into your meals and snacks. For example, eat fruit at breakfast, vegetables at

It is best to prepare and eat fruits and vegetables as quickly as possible, rather than chopping your vegetables in advance and cooking them later. Vitamins are lost more quickly once they are chopped. The longer you cook vegetables (or fruits) the more vitamins you destroy, so it is better to cook them for as little time as possible, leaving vegetables crunchy. Once they are cooked, eat vegetables soon afterwards – don't keep them warm for long periods as yet more vitamins will be lost. Boiling vegetables in lots of water causes some nutrients to be lost into the cooking water. It is best if vegetables are fresh, lightly cooked and quickly eaten.

Remember to wash fruits and vegetables before you use them. Just because they look clean, doesn't mean they don't have bacteria or other organisms on them. Wash thoroughly in clean water. It's important to wash any fruit or vegetable that you will peel or cut before you begin cutting. Otherwise, the knife will push the bacteria into the fruit that you will eat.