



This information sheet is about tea and how it influences your cancer risk. It is based on research evidence and has been written for the general public.

Key Messages

Tea is one of the most widely consumed beverages in the world and overall studies have shown that drinking tea is more likely to be good for you than harmful as it is a good way to consume fluids and beneficial antioxidants.

In terms of reducing cancer risk the evidence that tea is beneficial is not conclusive.

It is recommended care is taken not to drink tea that is very hot as high temperature foods can increase the risk of cancer of the mouth, throat and oesophagus.

All sorts of different dried plant leaves soaked in hot water are called tea but 'tea' generally refers to those made from the dried leaves of the plant *Camellia sinensis*. It has been drunk in Asian countries for thousands of years and, worldwide, tea is second only to water as a popular drink. On average, New Zealanders drink just under a kilogram of tea per person each year. Around 65 percent of adults drink tea regularly.

Green, black or herbal?

Green tea, most commonly drunk in Asian countries but now increasingly in Western countries, is made by heating the green leaves of the *Camellia sinensis* plant soon after they are picked, then pressing and drying them. Black tea, which is what New Zealanders usually drink for a 'morning cuppa', is made from the leaves of the same plant but they are dried (oxidised) until they go brown before being rolled and air-dried. The drying of the tea is sometimes called fermentation. Oolong tea is made from leaves which have been partly dried.

Tea has high levels of antioxidants called flavonoids. These flavonoids, which are also contained in fruit and vegetables are considered an important part of a healthy diet. Antioxidants help prevent cell damage in the body though exactly how they all work is not fully understood.

Although black and green teas come from the same plant, they contain different types and amounts of flavonoids. How and where the tea is grown, and how it is manufactured and prepared gives the tea its character and the amount of the flavonoids in the tea. Green teas contain more of the simple flavonoids called catechins, while black tea has more complex flavonoids called theaflavins and thearubigins.

Hot brewed tea has the most flavonoids. The longer the tea is brewed, the more flavonoids in the drink. You need to brew tea for at least three minutes to allow the flavonoids to be released. Adding milk to tea dilutes the amount of the flavonoids but does not change how they are taken in by the body.

Herbal teas, are infusions of the roots, leaves and flowers of a wide range of different plants, are not true teas but also can contain a range of antioxidants. What types of antioxidants and how much there is in a drink depends on the type of plants and the parts of the plant used to make the tea.

Does tea help prevent cancer?

Many people believe the antioxidants in tea, particularly green tea, help protect them from cancers. However, an expert panel from the World Cancer Research Fund, which assessed all of the human studies looking at the link between tea and cancer found the results of the studies to be unclear. The panel decided there was not enough information to make a judgement about the benefit of tea for reducing cancer risk.

The panel also looked at the evidence between drinking very high temperature drinks and cancer of the mouth, throat and oesophagus (food pipe).

Hot foods and drinks can damage the mouth, throat and oesophagus and it is possible repeated damage like this may lead to cancer. The panel decided the evidence that very high temperature foods and drinks can cause cancer of the oesophagus was limited and unclear. Adding milk to tea helps cool it.

Other health effects of tea

Generally, tea is a good way of drinking healthy amounts of fluids, and the antioxidants are good for you.

Tea does have some caffeine in it but it has less than coffee. Decaffeination (removing caffeine) destroys some of the antioxidants.

If you want to limit caffeine use a herbal tea. If you want to limit fat and sugar it is best to drink tea with little or no sugar. If you prefer white tea, use low fat milk.