

# Tea....brewing up a cup of health?

People have been drinking brewed tea for thousands of years. Although numerous health benefits have been attributed to tea, scientific research investigating its benefits has only been underway over the past few decades. So what are the facts?

As the various types of tea have different chemical compositions, not all provide the same health benefits. In general, tea provides various:

- Flavonoids which may protect us from oxidative damage caused by free radicals that contribute to chronic diseases. Flavonoids act as antioxidants and have also been reported to have beneficial antibacterial effects.
- Minerals which are essential for normal metabolic processes.
- Amino acids, such as Theanine, which are involved in brain rhythm and may help people keep alert.

Green, oolong and black tea all come from the same tea plant (*Camellia sinensis*), but their chemical compositions are different due to the way they are processed. The tea oxidation process is termed fermentation - with green tea being unfermented, oolong partially fermented and black tea fermented. In general, the antioxidant activity in green tea has been found to be superior to black tea, as a result of the higher content of a group of flavonoids called Catechins. Rooibos, honeybush and other herbal teas also contain various antioxidants and phytochemicals that may have health benefits.

## Effects of tea on health

There is some evidence to suggest that tea consumption *may*:

- improve heart health
- reduce the risk of certain cancers
- protect against dental caries
- be useful in the treatment of kidney stones
- help improve memory and protect against neurodegenerative disorders such as Parkinsons and Alzheimers
- enhance metabolism and play a role in weight maintenance (when drunk without milk or sugar)

Although most of the findings are in the early stages, there is more consistent evidence for the protective role of black tea in cardiovascular disease (CVD). Research suggests that regular consumption of black tea may protect against heart attacks and reduce the rate of CVD related deaths. While the exact mechanism for the beneficial effects of tea is not understood, some of the protective effects are thought to be related to:

- improved functioning of endothelial cells in blood vessels
- flavonoids preventing the oxidation of LDL (bad) cholesterol, which may reduce atherosclerosis (blood vessels from becoming clogged)
- prevention of blood clot formation
- lowering blood cholesterol

## Some concerns about drinking tea

For people who are worried about the caffeine content of tea, the average cup of (black) tea contains about half the caffeine of a typical cup of filtered coffee. To keep caffeine intake at moderate levels (less than 300 mg/day), 6 to 8 cups of tea per day is acceptable. Pregnant women, the elderly and people who are sensitive to caffeine should opt for Rooibos, honeybush or other caffeine free herbal teas.

Another concern, particularly for vegetarians or those that eat little meat or meat products, is that the polyphenols in tea may decrease iron absorption. This effect can be counteracted by adding

a squeeze of lemon to tea, as vitamin C enhances the absorption of iron. Otherwise, if tea is consumed between meals (at least an hour after a meal), it will not have much of an effect on iron absorption.

What about adding milk to tea? Some research has shown that the favourable health effect of tea is reduced when adding milk. However, the results thus far are conflicting and more research is required to corroborate these findings. There is evidence that the addition of milk does not alter the antioxidant activity of black tea. Besides contributing to your dairy requirement for the day, adding milk to tea will also inhibit tea's iron binding capacity. The general recommendation is that drinking tea with or without milk may be beneficial to your health.

#### **How much tea should you drink?**

Adults can include 6 to 8 cups of tea per day as part of a healthy, sensible eating plan (provided there is no other significant source of caffeine). Tea should preferably be enjoyed with fat free or low fat milk and little or no sugar.

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*For more information on general heart health contact the Heart Mark Diet Line on 0860 223 222, email [heart@heartfoundation.co.za](mailto:heart@heartfoundation.co.za) or visit [www.heartfoundation.co.za](http://www.heartfoundation.co.za).*