

ALBERT CILIA-VINCENTI

THE SERIES

# Healing & Disease Reversal

This series reviews Dean Ornish's evidence-based claims of healing & disease reversal by dietary and lifestyle changes. He is a California University Professor of Medicine in San Francisco. This instalment discusses tea intake.



Tea is the most widely consumed beverage worldwide, other than water. Tea contains a variety (possibly thousands) of powerful protective antioxidant polyphenols, especially flavonoids such as catechins, that may help reduce the risk of the most common chronic diseases.

All teas have been shown to have health benefits, however green tea appears to be the best. For example, black tea was found to be less protective than green tea. This is not surprising because green tea is unfermented (so retains original tea leaf colour), and black tea is fermented (which makes it black). The fermentation process reduces the protective effect of the flavonoids, the level of which is highest in green tea and lowest in black tea. In fact the concentration of protective catechins in the blood after drinking green tea is three times higher than after drinking black tea. On the other hand, the caffeine level is highest in black tea and lowest in green tea.

A study which followed more than 49,000 Japanese men and women over a 7 to 11-year period, found that green tea consumption was associated with reduced mortality due to all causes except cancer. The more tea they drank, the lower their risk of dying early. After a 7-year follow-up, researchers found that their overall risk of premature death due to illness was 26% lower among those who consumed 5 or more cups of green tea a day than among those who drank less than one cup per day.<sup>1</sup>

Interestingly, the effects of green tea on reducing risk of cardiovascular disease were not caused only by changes in traditional risk factors, such as cholesterol levels or blood pressure – the polyphenols in green tea appear to have powerful antioxidant properties. These polyphenols may directly

beneficially affect coronary artery atherosclerosis by dilating arteries, reducing thrombus formation, and reducing arterial wall inflammation.

In addition, researchers from the Harvard Boston Area Health Study have also shown that men and women who consumed one or more daily cups of green tea in the previous year had a 44% lower heart attack risk than non-tea drinkers.<sup>2</sup> Other studies indicate that regular green tea drinkers may reduce high blood pressure risk. Tea increases the body's nitric oxide production, which dilates arteries and reduces blood pressure.

Although the Japanese researchers did not find that tea drinking reduced cancer risk, other studies have. Animal studies have shown that green tea may inhibit cancer formation in the skin, lung, mouth, oesophagus, stomach, liver, kidney, prostate, and other organs. Human studies also suggest that tea drinking may reduce the risk of gastrointestinal tract cancers.

Some (but not all) studies with varying degrees of rigour suggest that tea may reduce risk of early-stage breast, prostate, ovarian and lung cancers. In one study, green tea extract was claimed to stimulate prostate cancer cell death (apoptosis), and the American National Cancer Institute is conducting a phase II study of green tea extract in men with metastatic prostate cancer.

On the whole, animal studies have tended to show greater value of tea in preventing cancers than in human studies, perhaps due to dietary, environmental and genetic differences.

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shown that men and women who consumed one or more daily cups of green tea in the previous year had a 44% lower heart attack risk than non-tea drinkers.<sup>4</sup> Other studies indicate that regular green tea drinkers may reduce high blood pressure risk. Tea increases the body's nitric oxide production, which dilates arteries and reduces blood pressure.

Green tea catechins have also been reported to have antibacterial, antiviral and antifungal activity, especially in early infective stages, involving some salmonella types, *Helicobacter pylori*, influenza and herpes simplex viruses, and *Candida albicans*. In addition, green tea consumption has also been associated with increased bone density and fewer hip fractures.

Furthermore, some studies suggest that tea may help regulate the blood sugar and possibly reduce diabetes risk since tea flavonoids may have both insulin-like and insulin-enhancing activities. Chinese medicine also claims that tea helps control obesity by increasing metabolism, reducing fat absorption, activating enzymes and reducing appetite.

If that's not enough, green tea may additionally reduce risk of dental caries by inhibiting bacterial growth and potentially harmful enzymes in the mouth. Also, both green and black teas contain natural fluoride.

White tea has recently appeared on supermarket shelves, even in Malta. It is said to be made from only the unopened bud and first leaves of the tea plant, and to possibly contain even higher levels of antioxidants than green tea. S

## References

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