

A Systematic Review of the Effects of Tea

To review the relationship between black tea consumption and adult health with emphasis on four key areas :

- Antioxidants
- Fluoride
- Caffeine
- Hydration

Methodology

The Cochrane Library and MEDLINE were searched for epidemiological and clinical trials focusing on tea drunk in the 'western style'. Evidence was restricted to 1990 - 2004 and covered the following areas.

- CHD
- Cancer
- Hydration
- Renal health
- Iron status
- Dental health
- Mood/Cognitive performance
- Arthritis

Main findings

- Antioxidants - With CHD and some cancers (colorectal in particular), regular long-term consumption of black tea appears to have a protective effect. Robust evidence linking black tea to reduce CHD risk.
- Hydration - Hydration appears to be satisfactory when the caffeine content is less than 250mg/cup (equivalent to five cups of tea). No evidence that all caffeine containing drinks should be avoided.
- Fluoride - Fluoride in tea represents an important contribution to intakes in the UK - both through the water involved and the leaf content.
- Caffeine - Effects of caffeine in tea were either positive or neutral. An increase in alertness was reported - there was no evidence for adverse effects on sleep duration or quality.
- No consistent data suggests any harmful effects of black tea on dental health.
- Evidence was limited in all areas except antioxidants.

Additional findings of media worth

- Drinking three cups of tea for two weeks increases the concentration of flavonoids in the blood by 25%.
- Long term tea drinking may increase the number of probiotic bacteria in the colon, leading to a drop in pH.
- Black tea produces an increase in alertness and improvement in mood, without any adverse effects on sleep duration or quality.