

## HEALTH

Tea contains antioxidants protecting human organism from free radicals, and theine helping to reduce tiredness.

Tea is an important component of your daily diet. Balanced and diverse diet and regular physical activity are important contributors to healthy lifestyle.



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Ancient Greeks called tea 'god's leaf', Louis IV used it for treating headache, while around 1200 in Japan it became to be used for cult ceremonies of mystic and religious character. In the Old Continent tea, due to its high price, was first drunk only by aristocracy. Today it is the most popular drink, frequently considered medicinal drink. As early as in the ancient times, the Asians believed that tea helps remain healthy and has some healing properties. In the 80s last century, the scientists noticed that the Japanese who drink large amounts of green tea have cancer much less frequently than other nations. In relation thereto intense research was initiated to check if tea really has some anti-cancer properties. It turned out that tea contains polyphenols such as flavonoids which act as antioxidants. Such substances help protect the human organism from damaging by free radicals. For this reason they play an important role in preventing diseases connected with excessive creation of free radicals, such as diseases of the cardiovascular system and cancer, and also the ageing processes. Most tea flavonoids are called catechins, the strongest natural antioxidants. They are also believed to have anti-inflammatory properties. Such substances also display antibacterial and antiviral activity. Since green tea does not undergo fermentation process, it contains much more catechins than black tea.

Tea contains also caffeine stimulating nervous system, eliminating drowsiness and fatigue, stimulating heart and ventilation of lungs thanks to expanding blood vessels in the brain, organs and muscles. Caffeine and its metabolites increase production of neurotransmitters and hormones such as serotonin and adrenalin which enhances mental processes, improves mood, gives an impression of good physical and mental condition. The refreshing effect of tea is obtained after a sufficiently short brewing. During the first 3 minutes of brewing the brew gets almost all alkaloids, and in the successive minutes – polyphenols and tannins. The tannins are responsible for the tea taste and flavour, adding the peculiar bitterness. The refreshing effect of tea stems from all those substances, but the greatest share have the alkaloids that is caffeine and its metabolites, teobromine and teophiline.

Tea is used also for treating stomach disorders, foodborne diseases and diarrhoea. It enhances secretion of gastric acids and enzymes.

Green tea is obtained from the same tea trees as black tea. The manufacturing cycle, however, is different. It is obtained by drying fresh leaves heated previously with steam. Steaming is aimed at preserving the colour (green tea is olive-green) and destroying enzymes to prevent fermentation. After evaporating water, tea is rolled and dried.

The highest-quality green tea is light green, like pistachio, with golden touch. The green tea brew is yellow-green or straw. Also the taste is different than that of black tea: it is bitter, and in significant concentration – even acrid. It is characterised with thick and long leaves, and the brew is light green. The quality of tea brew depends not only on the tea species, but also on the method of brewing. Chinese green tea should be brewed in 70-80°C, while Japanese – in 60—70°C. It should never be brewed in boiling water! Brewing time should be 2-3 minutes. Longer brewing results in more bitter taste due to tannins entering the brew. To avoid that, brewing should not last longer than five minutes.

Black tea makes over 90% of global tea production. It is obtained in the fermentation process, giving it specific intense colour, taste and fragrance. Manufacturing methods differ for particular regions, but there are always four basic stages: wilting, rolling, fermentation and drying. The leaves are placed in the shadow to wilt until they are soft and do not break while rolling. Next they are rolled and left in humid environment. Fermented leaves are burned thanks to which they become black and the tea gains the flavour we know. Black tea is brewed in boiling water for 2,5-3 minutes under cover.

Red tea (oolong), called semi-fermented tea, is produced mainly in China and Taiwan. The fermentation process is shorter than for black tea. The leaves are not broken and they are treated immediately after picking. This tea species has a characteristic red leaf edges and tips. It has strong, a bit spicy flavour. Moreover, they are highly extractive and have large amount of tannins. One of advantages is increased shelf life. One of slightly fermented red teas is pouchong, frequently used as a basis for flavoured teas.

White tea is made of young buds picked early spring. Its manufacturing is based on traditional, rigorous methods. Wilting and drying is achieved naturally in order to obtain appropriate taste and flavour. The brew is lighter than in the case of green tea. White tea contains more caffeine thanks to which it has strong refreshing and stimulating properties. This is the most expensive tea type.