

Oolong tea to reduce obesity

According to a Chinese belief Oolong tea is effective for the control of body weight. Few controlled studies, however, have been conducted to measure the impact of tea on energy expenditure of humans. To study metabolic rate and fat oxidation in men,



Tea plants

Rumpler and others from USA and Japan used a randomized cross-over design to compare 24 hr energy expenditure (EE) of 12 men consuming each of four treatments: 1. water, 2. full strength tea (daily allotment brewed from 15 gm of tea) 3. half-strength tea (brewed from 7.5 gm tea) and 4. water containing 270 mg caffeine, equivalent to the concentration in the full strength tea treatment. Tea was brewed each morning; beverages were consumed at room temperature as five 300 ml servings. Subjects received each treatment for 3 days; on the third day, energy expenditure was measured by indirect calorimetry in a room calorimeter. Relative to the water treatment, EE was significantly increased by 2.9 and 3.4% for the full-strength tea and caffeinated water treatments, respectively. This increase over water alone represented an additional expenditure of 281 and 331 kJ/d for subjects with

full-strength tea and caffeinated water, respectively. In addition, oxidation was significantly higher (12%) when subjects consumed the full-strength tea rather than water [Rumpler *et al*, *J Nutr*, 2001, **131**(11), 2848-2852].



Black tea is good for heart disease

Epidemiological studies suggested that tea consumption decreases cardiovascular risk, but the mechanism of action remained undefined. Endothelium has been associated with coronary artery disease and increased oxidative stress. Some antioxidants have been shown to reverse endothelial dysfunction; and tea contains antioxidant flavonoids.

Duffy and others from USA studied the black tea consumption and water in a crossover design in 66 patients with proven coronary artery disease. Short-term effects were examined 2 hours after consumption of 450 ml tea or water. Long-term effects were examined after consumption of 900 ml tea or water daily for 4 weeks. Vasomotor function of the brachial artery was examined at base line and after each intervention with vascular ultrasound.

Both short-term and long-term tea consumption improved endothelium-dependent flow-mediated dilation of the brachial artery, whereas consumption of water had no effect. Hence black tea consumption reverses endothelial vasomotor dysfunction in patients with coronary artery disease [Duffy *et al*, *Circulation*, 2001, **104**(2), 151-156].

Vitamin C rich beverage from Aonla

The fruits of *Aonla*, *Emblica officinalis* Gaertn. being highly astringent are not popular as a dessert fruit but after processing a vitamin C rich beverage could be prepared. After blanching, water in 1:1 ratio is added in fruits. A method involving juice extraction from blanched fruits of *Aonla* without mixing water through centrifugal juice extractor was found best among all the methods (*Indian Agric Res Inst, Annual Report 2000-2001*, 71).