



Water for health

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Drink adequate quantity of water

Rationale: Adequate water is important for maintaining good health.

- Water is the major constituent of the human body.
- Water and other beverages such as tender coconut water or lemon water are useful to relieve thirst and meet the fluid requirements of the body
- Drink adequate quantities of safe water to meet the daily fluid requirements.
- Boil water, when safety of the water is in doubt
- Consume fresh fruits rather than in juice form.
- Prefer butter milk, tender coconut water, lemon water etc., as beverages in hot weather. Avoid synthetic soft drinks and carbonated beverages
- Synthetic soft drinks are not substitutes for water and therefore should be avoided.
- Avoid alcoholic beverages.

Why do we need water?

Water accounts for 70% of our body weight. It is a constituent of blood and other vital body fluids. Water plays a key role in the elimination of body wastes and regulation of body temperature. The body loses water through sweat, urine and feces. This loss must be constantly made good with clean and potable water. A normal healthy person needs to drink about eight glasses (approximately two litres) of water including beverages per day. During very hot weather and while undertaking vigorous physical activity, this requirement increases as a considerable amount of water is lost through sweat.

When water is considered safe?

Water can be considered safe if it is free from disease-causing agents like bacteria, viruses, parasites, etc., and harmful chemical substances like pesticides, industrial wastes, heavy metals, nitrates, arsenic, silica and excess of fluoride. Fluorosis, a disease that causes bone deformities and dental problems, results from drinking water containing an excess of fluoride over long periods. Generally, a concentration of 1–1.5 mg of fluoride per litre of drinking water is considered safe.

How water is rendered safe?

The simplest and efficient method of rendering water safe is straining and keeping the water boiling for 10–15 minutes. The boiling process kills all disease-causing organisms and also removes temporary hardness. However, boiling will not remove chemical impurities. Tablets each containing 0.5g of chlorine can be used to disinfect 20 litres of water. There are many modern gadgets which could help in rendering water safe.

Tender coconut water : Tender coconut water is a good hydrating beverage which contains several minerals and provides 15 Kcal/ 100ml. However, in patients prone to hyperkalemia (in kidney and heart diseases), tender coconut water should be avoided

What about consuming milk?

Milk is a well-accepted and wholesome food and a beverage for all age groups. Milk is especially useful for feeding infants, toddlers, growing children, adolescents, expectant women and nursing mothers. Milk is a rich source of several nutrients necessary for growth and development. Milk is a good source of calcium but not iron. All macro and micronutrients present in milk are easily digestible and absorbable. Since it is likely to get contaminated, use pasteurized or boiled milk to ensure safety.

What are soft drinks?

Soft drinks are non-alcoholic beverages either carbonated or non-carbonated, and may contain sugar or artificial sweetening agents, edible acids (malic acid, citric acid or vinegar, etc.) natural or artificial flavors and sometimes fruit juice. Compared to

fresh fruit juices, most commercially available fruit juices may contain varying amounts of fruit pulp (as low as 7%).

Carbonated beverages contain phosphoric acid and may damage the enamel of teeth, and affect appetite if taken in excessive amounts. Synthetic soft drinks are not substitutes for water or fresh fruits and therefore should be avoided. Beverages like buttermilk, lemon water, whole fruit juice (without added sugar) and coconut water are excellent alternatives to synthetic drinks. Consumption of soft drinks or commercially available fruit juices increases one's sugar and salt intake and hence must be avoided.

Fresh fruit juices : Orange, lemon, grape, mango, pineapple, apple, pomegranate, etc., are generally used in making fruit juices. Fresh fruit juices (without added sugar) provide vitamins (like beta-carotenes and vitamin C) and minerals (potassium, calcium, etc.). However, they cannot be equated to whole fresh fruits which in addition to vitamins and minerals provide dietary fibre and should be preferred to fresh fruit juices from not more than 100 to 150g whole fruits can be consumed occasionally by adults. Sugarcane juice, which is extensively consumed in India, particularly during summer, is high in sugar (13–15g/100ml) and hence its consumption should be minimized.

Tea and Coffee

Tea and coffee contain caffeine, which stimulates the central nervous system and induces physiological dependence. A cup (150ml) of brewed coffee contains 80–120mg of caffeine, instant coffee contains 50–65mg and tea contains 30–65mg of caffeine. Moderation in tea and coffee consumption is advised so that caffeine intake does not exceed the tolerable limits (300mg/day). Tannin is also present in tea and coffee and is known to interfere with iron absorption. Hence, tea and coffee should be avoided at least for one hour before and after meals.

Besides caffeine, tea (green or black) contains theobromine and theophylline, which are known to relax arteries and thereby promote blood circulation. They also contain flavonoids and other antioxidant polyphenols, which may reduce the risk of coronary heart disease and stomach cancer. These benefits can be best obtained if milk is not added to tea and if it is taken in moderation.

Excessive consumption of coffee is known to increase blood pressure and cause abnormalities in heartbeat. In addition, an association between coffee consumption and elevated levels of total and LDL cholesterol ('bad' cholesterol), triglycerides and heart disease has been demonstrated. Similarly, excessive consumption of tea

should also be avoided due to its caffeine content.

Avoid alcoholic beverages

Alcoholic beverages contain ethyl alcohol in varying proportions. Beer contains 2–5% and wine 8–10% of alcohol, while brandy, rum and whisky contain much higher concentrations (30–40%). Alcohol provides higher calories (7 Kcal/g) than carbohydrates and proteins and thus, can contribute to abdominal obesity. Ironically, excessive intake of alcohol is known to suppress appetite and interfere with absorption and metabolism of nutrients, leading to various nutritional deficiencies. Alcohol has been extensively abused as a sedative-hypnotic drink. Alcohol intake, which is usually initiated as an innocent social habit can gradually result in a serious addiction.

People who regularly consume more than two measures (containing 30ml of ethyl alcohol in each measure) are at a higher risk for hypertension and stroke. Alcohol also increases serum triglyceride levels. Alcohol intake has also been shown to increase the risk of cancers of the mouth, larynx, oesophagus, prostate and of the breast in women. Excessive alcohol intake weakens the heart muscle (cardiomyopathy) and also causes fatty liver, damages the liver (cirrhosis), brain and peripheral nerves.

Source: [National Institute of Nutrition, Hyderabad - Dietary guidelines for Indians](#) 

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