



Tender Coconut Water- A Natural Desi Drink

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Coconut plant, botanically, belongs within the **Arecaceae** family of palm trees and is scientifically named as **Cocos Nucifera**. A coconut tree generally yields several hundreds of tender nut every season. Each nut may contain about 200 to 1000 ml of water. The nuts for drink are harvested at their young and slightly immature stage when they are about 3-7 months age. Tender coconut water is consumed, likened and demanded world-wide as it is the nature's most refreshing drink unlike any other soft beverage. The universal up-surge in the consumption of tender nut water is due to its nutritious and health benefiting properties.

Nutritional Properties of Tender Coconut Water

Tender nut water is the most nutritiously rich beverage. It has caloric value of 17.4 per 100gm. Table No-1 shows the nutritional composition of tender coconut water. The major nutritional constituents of tender coconut water are minerals, electrolytes, vitamins, protein and substances of sugar.

- **Minerals-** Tender coconut water is composed of some major significant minerals such as calcium, magnesium, copper, iron, manganese and zinc.
- **Electrolytes-** Tender coconut water is rich with the presence of two electrolytes- sodium and potassium. In every 100 gram of tender nut water potassium alone accounts for 250mg. Being rich with potassium, tender nut water plays a decisive role in increasing the urinary output.
- **Vitamins-** Table-1 shows that tender coconut

water consists of all essential vitamins. It is a very good source of B-complex vitamins such as riboflavin, niacin, thiamin, pyridoxine and folates. They replenish human body. Tender water also has a small amount of vitamin C (2.4 mg).

- **Protein-** Further, tender coconut water contains some amounts of protein. Each 100 ml of tender water has 0.72 g of protein. It is also learnt that the percentage of arginine, alanine, cystine and serine in the protein of tender water are higher than in the milk of cow.
- **Sugar-** Another important constituent of tender water is sugar. The glucose and fructose form sugar in tender water and it is about 4.4 percent.

Table No-1.
Coconut Water Nutrition Value per 100 g

Principle	Nutrient Value	Percentage of RDA
Energy	19 Kcal	1%
Carbohydrates	3.71 g	3%
Protein	0.72 g	1.5%
Total Fat	0.20 g	1%
Cholesterol	0 mg	0%
Dietary Fiber	1.1 g	3%
Vitamins		
Folates	3 µg	0.75%
Niacin	0.080 mg	0.5%
Pantothenic acid	0.043 mg	<1%
Pyridoxine	0.032 mg	2.5%
Riboflavin	0.057 mg	4%

Thiamin	0.030 mg	2.5%
Vitamin C	2.4 mg	4%
Vitamin A	0 IU	0%
Vitamin E	0 mg	0%
Vitamin K	0 mcg	0%
Electrolytes		
Sodium	105 mg	7%
Potassium	250 mg	5%
Minerals		
Calcium	24 mg	2.4%
Copper	40 mcg	4.5%
Iron	0.29 mg	3.5%
Magnesium	25 mg	6%
Manganese	0.142 mg	%
Zinc	0.10 mg	1%
Phyto-nutrients		
Auxin (Gibberlin)	Present	—
Carotene,β	0 μg	—
Cytokines	Present	—
Lutein-zeaxanthin	0 μg	—
Leucoanthocyanin	Present	—

Source: USDA National Nutrient data base.

Health and Medicinal Benefits of Tender Coconut Water

The global tender coconut market is passing through an upsurge thanks to health and medical benefits it provides to the consumers. Major benefits include:

- Coconut water is a refreshing drink to beat thirst. As it is pouched sugar, electrolytes and minerals it replenishes hydration levels of the body.
- It is offered to diarrhea patients to replace the fluid loss.
- The presence of bioactive enzymes help in the digestion.
- Consumption of tender coconut water relieves the consumer from the symptoms of urinary problems.

- Consuming tender coconut water with one tea spoon of olive for three days help in killing intestinal worms.
- Drinking coconut water along with other prescription also helps to break kidney stones.
- People are advised to drink coconut water to settle the stomach and to check vomiting sensation.
- It prevents summer boils and subsidises the rashes caused by small pox, chicken pox, measles etc.

Problems in Growth Path

There is a global rise in the demand for the tender coconut water with soft drink giants like coca cola, pepsi etc looking at marketing packaged coconut water. The soft drink companies indeed demanded for 10 crore liters of tender coconut water (Shashikumar, 2011). However, the demand could be met in India owing to the cumulative effect of certain limitations in the production, processing and marketing units of tender coconut water. The prominent retarding factors among them are:

- Synthetic beverages- Soft drink brands like pepsi, cola etc dominate the beverage market of India. Youth, the largest part of the population, are attracted to the soft drinks in very large scale mostly due to their colour and artificial flavor. Hence, the colourless natural desi drink i.e, tender coconut water is not their first choice.
- Heavy- The size of the tender coconut is, generally, big and consequently weighs more. Customers feel it bulky in size and heavy in weight. Hence, the tender coconut loses its attraction value. Though tender coconut water is available in pouches and cans, it is

very small in scale and unavailable in most part of the Indian market.

- **Perishable-** The harvested tender nuts are durable only for a couple of weeks at normal temperature. Soon the water inside the shell sours and loses its flavor. For its perishable nature, people opt soft drinks against tender nut water. Efforts are made scientifically to preserve and market tender nut water in pouches and cans but it proves to be insufficient and narrow based in the market. The fresh nuts generally being sold by roadside vendors cannot be stored for long.
- **Unorganised Market-** Tender coconut market in India is saddled with a long chain of middlemen. They exploit the growers by paying very less price and sells in the market at very high price keeping a lion margin. It lacks organized, systematic and fair market.
- **Regional Imbalance-** Neither the production nor the consumption is uniform all over the country. Kerala, Tamil Nadu, Karnataka and Andhra Pradesh are the major coconut producers of the country and they account for 91% of the national aggregate coconut production. Major trade in fresh tender coconut originates from Mandya and Tiptur in Karnataka, Mangrol in Gujrat and Pollachi in Tamil Nadu. Delhi, Mumbai and Kolkata are the major markets having large share in total consumption. Hence, the production, consumption and market are highly regionally localized leaving major part of the country.
- **Harvesting-** One of the major problems is the harvesting of tender nuts. Cutting the whole bunch of nuts and getting them down without causing any damage to the nuts is the real challenge. Even today, in many parts, it is

practiced manually. However, labourers skilled in plucking the nuts are a vanishing tribe. Again, though some machines / technologies are available for harvesting of nuts, they are not being used universally may be due to: non-availability of skilled operators, expensive or they are not very efficient/ convenient in use.

- **Diseases-** Tender coconuts and even trees are frequently attacked by various diseases, menace of pests and insects. This, in turn, lowers the production of tender nuts, reduces the size of the nuts, de-shapes the nuts and become unattractive and moreover water loses its flavor.
- **Low Productivity-** The per hectare productivity of coconut in India is just 8303. This is much lesser than in many other countries. Even the per capita availability of the tender nuts is a low 11 nuts per year.
- **Less Exports-** Though Indian tender coconut water exporters have entered into global market, still growth of export of tender coconut water is unsatisfactory.

Promotional Measures

The following remedies are suggested to overcome the hurdles in the path of the growth of Indian tender coconut water.

- The chain of middlemen should be unshackled and there should be direct contact between the growers and the market so that the growers get the right price for their nuts which induce them to produce more.
- Affordable, convenient and efficient machineries and technologies to harvest nuts, to package and to conserve packaged water for long duration with original flavor are to be developed. The Government, Coconut

Development Board and Research Centers have to work in this regard.

- The Coconut Development Board may tie up with all the private beverage firms to sell out tender coconut water either in fresh nuts or packaged pouches/cans in the booming Indian beverage market. The reported agreement of the Coconut Development Board with coco-cola and pepsi for marketing tender nut water is an appreciable move. Many more such steps are essential.
- As the productivity of tender nuts is very low, the Coconut Development Board may look at developing improved high yielding dwarfs.
- The Government should encourage the firms to export tender coconut water by producing them with high subsidies and granting tax holiday.
- In order to widen the market of tender coconut water and also to compete with

beverage giants, more publicity should be given through clever and persistent advertisements in visual and print media.

Owing to the immeasurable value of the tender coconut water, the largest segment of the beverage market i.e. the youth and the educated should be awakened. Soft drinks contain a large percentage of chemicals which are dangerous to health in many ways. The study conducted by The Centre for Science in the Public Interest (CSPI), based in Washington DC reveals that the caramel colouring used in some of the well-known soft drinks is contaminated with cancer causing chemicals. People should be informed of the danger of coloured water and also they should be convinced the health and nutritional properties contained in the tender water. Hence, let us 'Go Green' and 'Go Swadeshi'.

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