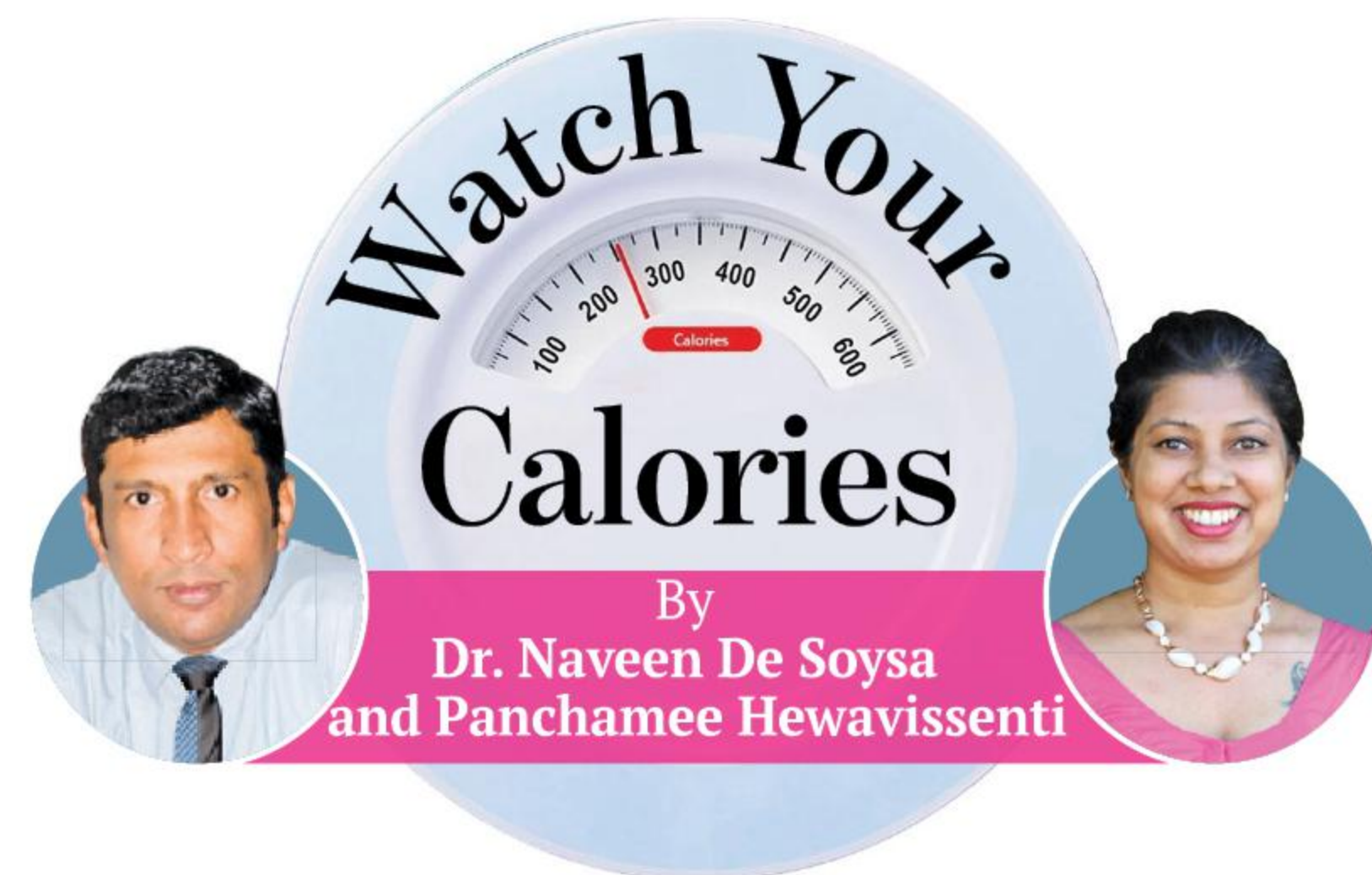


# Is animal milk essential for humans?



Humans are mammals and juveniles are breastfed. For human infants, breastmilk is the best and the preferred food. Breastmilk is well-tolerated for them as their digestive tract is still immature and not developed. Breastmilk does not only help the physical growth and the development of an infant, it is vital for the development of the brain too.

Once the child is weaned, he is then introduced to dairy milk in most cases and the consumption of animal milk continues till old age. In Sri Lanka, the consumption of cow and buffalo milk is prevalent, whereas goat, sheep, camel, yak, and equine (horse) milk are consumed by people of the other parts of the world.

Nevertheless, there are still arguments over the necessity of milk in the diet of an adult. Some scientists and healthcare specialists are of the opinion that milk is not an essential food for humans, notwithstanding its necessity during infancy. Others are strong advocates of milk as an essential food for a balanced diet.

Humans began the consumption of milk with the dawn of agricultural civilisation. Archaeological records do not support cavemen or the pre-historic people consuming milk or dairy. Proponents of the paleo diet advise the non-inclusion of milk in the diet to remain healthy since the human anatomy or genetics have not undergone significant transformation since the stone age.

Despite claims that milk or dairy products are not mandatory in the human diet, Food and Agriculture Organization (FAO) states that milk is the commonly available source for fulfilling the requirement for essential nutrients such as calcium,

vitamins (B2, B12, A), protein, and fat for the proper functioning of the body for most people in developing countries. Milk is also a good source of magnesium, selenium, and pantothenic acid. As per FAO reports, milk plays a vital role in fighting malnutrition among the poor whose animal-based protein intake is restricted.

## Source of protein

Milk is a good source of protein for vegetarians as well as for those with limited access to animal-source protein. In Sri Lanka, like other developing countries, milk is identified as an important food that supports the fulfillment of the daily dietary intake of protein. Since milk is filling, some people survive on a glass of milk until they have a solid meal.

The most common type of animal-based milk in the world is cow milk. It contains three to five percent solid, five percent of lactose, and three to four percent of protein. Dairy products such as curd (*Mee Kiri*) made of buffalo milk are commonly consumed by Sri Lankans. Buffalo milk has a higher fat content in comparison to cow's milk. Although not common and very popular, goat milk too is consumed by Sri Lankans. In other countries, dairy products made of goat milk such as goat cheese and goat yoghurt are popular.

Sri Lankans consume milk commonly by adding milk to a cup of tea or sometimes coffee and enjoyed it as a delicious beverage. Curd (made of water buffalo milk) is often consumed as a dessert after the main meal with treacle. In some regions of Sri Lanka, curd is consumed along with curry and rice or Kurakkan Pit-

tu. Buttermilk (*Mor/ Moru*) is popular among the Tamil community in Sri Lanka. Although the production and consumption of cheese are limited, yoghurt is an affordable dairy product in Sri Lanka.

Traditionally, Sri Lankans reared cattle for obtaining milk for household consumption. Hence, they had access to grass-fed, chemical-free fresh milk. Presently, the majority of Sri Lankans fulfill their milk requirement with imported powdered milk. Powdered milk cannot be regarded as healthy as its fresh counterpart unless fortified with essential nutrients.

Recently, there were many controversies in regards to powdered milk in Sri Lanka. It was found that some powdered milk that are imported contain toxins such as DCD(Dicyandiamide), a nitrate inhibitor used in fertiliser. The quality of milk powder was also in question as the milk powder does not contain actual 'cow milk' but lactose, palm oil, and swinefat.

A glass of milk, a slice of cheese or a bowl of yoghurt or curd is a good source to fulfill daily intake of calcium. The daily requirement of calcium may vary according to age and gender. However, on average, an

adult requires about 750 to 1,000 milligrams (mg) of calcium a day. Generally, a cup of milk contains an average of 250mg to 350mg of calcium which may vary depending on many factors.

Calcium is an essential nutrient to help strengthen bones and to reduce the risk of bone fracture. Calcium deficiency can cause osteoporosis in older people.

Research state that calcium in milk along with potassium may con-

trol blood pressure.

Fermented dairy such as yoghurt and curd play a vital role in keeping the gut microbiome healthy.

Protein is a vital macro-nutrient in the diet. A person requires about 50 to 80 grams of protein a day on average depending on the body weight. Protein is supplemented by milk in most developing countries including Sri Lanka.

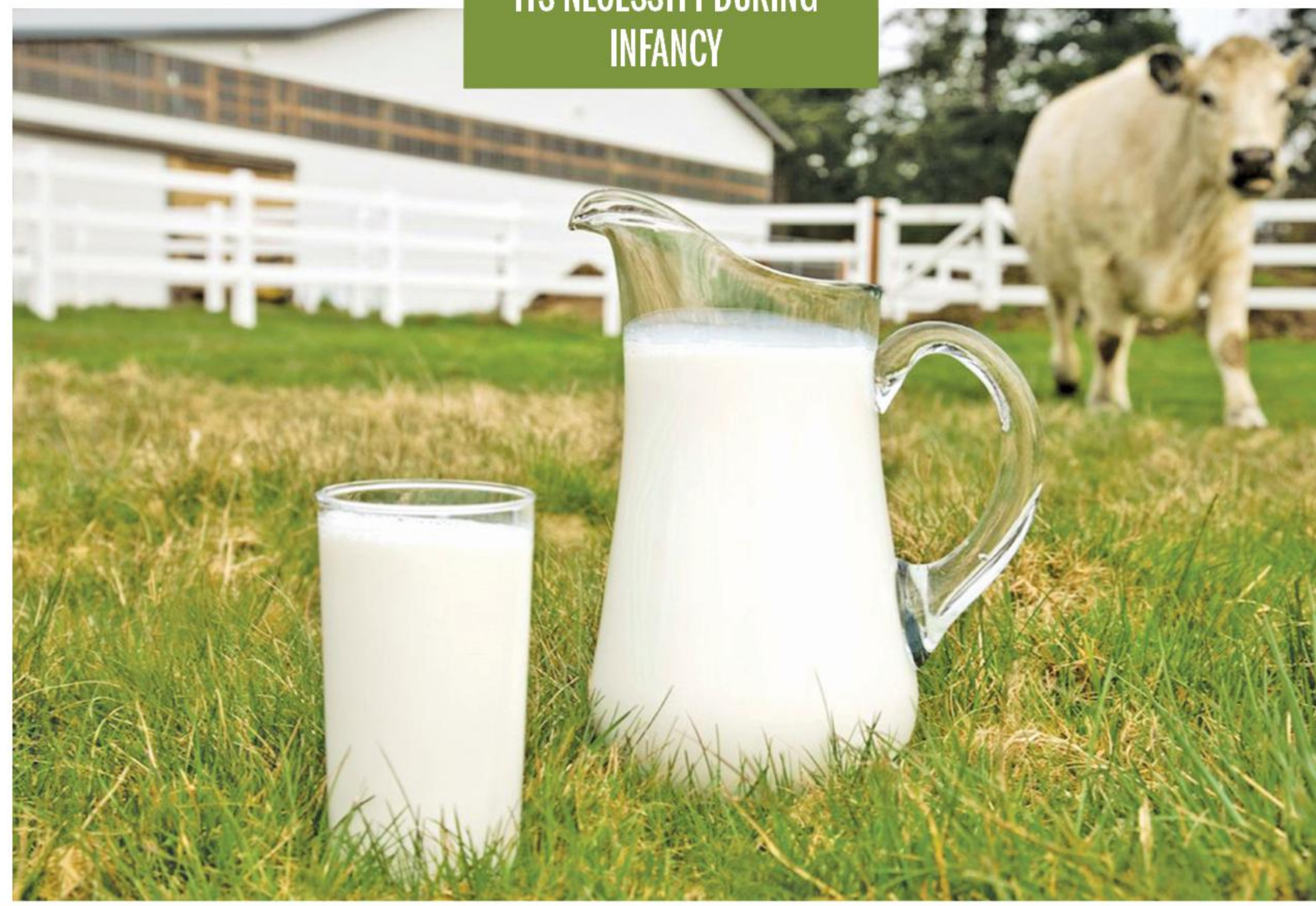
Recent studies have made groundbreaking discoveries that full fat (full cream) milk is as healthy as its low-fat counterpart.

## Say no to milk?

A growing number of people has given up consuming milk and other dairy products due to health, ethical as well as environmental concerns.

Mass production of milk is not environmentally friendly. It demands a considerable amount of earth's resources such as land and water. Forests are converted to meadows and bio-diversity and habitat loss are inevitable. Moreover, dairy-producing animals such as cattle, goat and sheep generate methane, a greenhouse gas. Due to the detrimental effects of global dairy industry, climate scientists

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have said that if every person in the planet were to drink one glass of milk a day, the effects of climate change would be disastrous.

In the mass production of milk, cows are frequently made pregnant to obtain a constant supply of milk. Milk is obtained from them while they are still pregnant. This breaks the natural reproductive cycle of a cow and its health weakens faster due to this and raises ethical concerns.

In commercial production of milk, cows are given hormones such as insulin, estrogen, growth factor, progesterins and other hormones to increase the production. Milk that we drink can contain the traces of such artificial hormones. This may not be a good news for milk lovers. Milk from free range cows is the best option.

As per a report of the Journal of Nutrition published in 2013 named 'Whole milk intake is associated with prostate cancer-specific mortality among US male physicians', it was found that 21,660 men who had an intake of more than 2.5 servings of dairy foods daily (compared with a half or less serving daily) was associated with a 12 percent increased risk of prostate cancer.

Recent research also found that drinking milk regularly does not affect the bone mass.

A considerable number of global population is lactically intolerant and have difficulty in digesting lactose.

## Alternatives

People with lactic intolerance and vegetarians often opt for plant-based milk such as almond milk, cashew milk, oat milk, soy milk, coconut milk and rice milk.

Although incorporating milk in a diet can help one fulfill his daily nutrient intake, the dairy calcium intake is also possible through the intake of leafy greens and many other foods.

Sri Lankan traditional rice varieties are said to contain higher calcium content than that of powdered milk.

Most of the world's population does not consume milk after infancy. It is difficult to come to a conclusion whether ditching milk from the diet completely is a healthy option or not. "Is animal milk essential?" is a debatable question. Arguments with regard to this are still going on and studies are coming up with many contrary findings.