

Is a Tomato better than an Apple?

Ajeet Saoji

Department of Community Medicine, NKP Salve Institute of Medical Sciences & Research Centre, Nagpur

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ABSTRACT

“An apple a day, keeps the doctor away.” This 17th Century idiom has always caused a lot of interest in medical researchers. With the help of modern day technology and advances in the field of medicine, it is now possible to find if it is really true or its time for a rethink the adage.

KEY WORDS: nutritive value, apple, tomato

The Apple:

Malus sylvestris. In Hindi, known as 'Seb', the apple is one of the most popular fruits in the world. The Bible begins with man and woman eating it. It took an apple to help Newton discover some basic laws of gravity. However, from a nutritive stand point, the apple does not compare favourably with the other fruits that are popular in India, especially with reference to the cost. Apple has practically no Vitamin-A or Vitamin-C. It has very small amounts of mineral nutrients. Their iron content is just 0.1mg per 100g. Though it contains fair amounts of calcium and phosphorus, other fruits which are cheaper and easily available (*sitaphal, sapota and banana*) contain more of these mineral salts.^[1] Apple is a fair source of fibre or roughage. Roughage in diet is said to protect a person from disorders of the alimentary canal. Perhaps the phrase “An Apple a day keeps the doctor away” is more true for people from Western Countries where the diet contains very little roughage because of consumption of processed foods. A recent study published by American Medical Association concludes that, “Evidence does not support that an apple a day keeps the doctor away; however, it is a health habit.”^[2] When the apple pieces are exposed to air, certain chemical substances such as tannins in the fruit causes some other nutrients to react with atmospheric oxygen resulting in browning and the destruction of vital nutrients. Browning can be

avoided by placing the pieces in a salt solution.

Table 1: Comparison of Nutritive Values (*per100gm*) source: Nutritive Value of Indian Foods, National Institute of Nutrition.

Nutritive Value	Macronutrients	Apple	Tomato
Calories (<i>kcal</i>)		52	18
Carbohydrate (<i>g</i>)		13.8	3.9
Protein (<i>g</i>)		0.3	0.9
	<u>Vitamins</u>		
Vit - A (<i>IU</i>)		54	833
Vit - C (<i>mg</i>)		4.6	13.7
Vit - E (<i>mg</i>)		0.18	0.54
Vit - K (<i>g</i>)		2.2	7.9
Folate (<i>g</i>)		3	15
	<u>Minerals</u>		
Calcium (<i>mg</i>)		6	10
Iron (<i>mg</i>)		0.12	0.27
Magnesium (<i>mg</i>)		5	7
Phosphorus (<i>mg</i>)		11	24
Sodium (<i>mg</i>)		1	5
Potassium (<i>mg</i>)		107	237

The Tomato:

Solanum lycopersicum. Tomato is regarded as the most popular 'vegetable- fruit'. India is the second largest producer of tomatoes with about 17,500,000 metric tonnes produced annually. Tomato is a rich source of Vitamins, particularly Vitamin-C,

Corresponding Author: Dr. Ajeet Saoji
 Professor, Department of Community
 Medicine, NKP Salve Institute of Medical
 Sciences and Research Centre, Nagpur
Phone No.: +9822715183
E-mail: ajeet.saoji@gmail.com



potassium, folic acid, and carotenoids, such as lycopene. Normal food processing does not adversely affect its nutritive value making it nutritionally desirable.

It is commonly believed that tomato consumption may result in the formation of bladder stones and is unsuitable for those who suffer from gout or uric acid diseases. However, analysis of tomatoes shows that the vegetable-fruit contains around 4mg of oxalic acid per 100g of fruit. In fact, tomatoes contain less purines than carrots, potatoes, cabbage and other vegetables and less oxalic acid than beets, potatoes, cucumbers and lettuce. Purines & oxalic acid are substances that are generally known to be associated with bladder stone formation. Adequate amount of water intake is advised in those who have a tendency for bladder stone formation.

Recent studies highlight the relationship between consuming tomato and its products with reduced risk of various conditions like obesity, cardiovascular disorders, and cancer and improve high cholesterol levels.^[3-5]

Since tomato is a fruit of good nutritive value, especially with regards to vitamins and is easily available at a relatively low cost; its inclusion into everyday diet of young, growing children as well as adults should be encouraged.

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