



Honey - A Traditional food

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Introduction

Honey is a substance which is produced from the nectar of the flowers. It is an organic matter. It is a sweet and liquefied food contains sugar compounds. Which contains trace amounts of proteins, amino acids, enzymes, minerals, polyphenols etc. honey is globally accepted as a medicine from ancient to modern days. The food which is used largely in the countries of India, Sri Lanka, Pakistan in their day-to-day life of food behavior. Honey is collected by the *Apis mellifera* from the nectar of the flowers.

The month of September is celebrated as national honey day in United states. The heart of the day celebration is increasing the production of honeybee's industries in America and promote honey as a natural food and used for sweetener.

Food organization concludes that larger honey producing countries in the worldwide is Russia which is followed by the next most producer is India. Honey mainly composed of various forms of sugars and water. Based on the composition of sugars:

- Fructose - 38%
- Glucose - 31%
- Sucrose - 1%

In addition to that honey has several other vitamins, minerals, proteins, enzymes, flavonoids and phenolic acid. Is given in the below **table 1**:

S. No	Vitamins	Enzymes	Flavonoids	Phenolic acid
1.	Riboflavin	Catalase	Apigenin	Ellagic
2.	Niacin	Superoxide Dismutase	Pinocembrin	Caffeic
3.	Pantothenic Acid	Reduced Glutathione	Kaempferol	P-Coumaric
4.	Pyridoxine		Quercetin	Ferulic Acids
5.	Folate		Galangin	
6.	Vitamin C		Chrysin	
			Hesperetin	

The traditional food honey is divided into two types:

- ✓ Navina Madhu
- ✓ Purana Madhu

Navina Madhu – which is a pure and fresh honey collected from the hive of bees. Nourishment and increase body weight and act as mild laxative.

Purana Madhu – which is represented as an old honey up to one year. It is drier than navina madhu and helps in weight loss reduce fat.

The usage of honey to diabetic patients are from the ancient times. Honey is sweeter than the sugar but the calories are compared with normal sugars are less in sugars present in honey.

Pharmacological effects of traditional foods

Relief from stomach pain

With the help of improved experiments scientist have discovered the traditional traits of honey. Mostly honey is used to treat gastrointestinal track infection and gastric infection caused by rotavirus. The infection is caused by bacterial attachment in the mucus epithelial cell of the body. The infection is explained by three mechanisms:

1. Non-specific mechanical inhibition
2. Alter hydrophobicity
3. Killing of bacteria by antibacterial activity present in honey

Further honey is used as a remedy for diarrhoea and gastroenteritis by the concentration up to 5% (v/v).

Action against inflammation

The anti-inflammatory activity of cyclooxygenase 1 & cyclooxygenase 2 is decreased by the honey. Further honey has a wonderful excellence in treating the inflammation by without creating any side effects such as ulcer, tissue development, immune response and etc.

Antioxidant behaviour

Higher antioxidant activity of honey is based on phenolic compound present in increased ratio. The higher phenolic content of honey is indicated by the colour of honey. If the colour of the honey is dark the amount of phenolic compound is high.

The main risk factor for cardiovascular disease is hyperlipidaemia and free radicals. The phenolic compound present in traditional food can reduce the rate of occurrence of the cardiovascular disease.

Wound healing capacity

Honey has healing behaviour such as wound healing, tissue rebuilding, reduced the risk of inflammation, non-adhesive tissue dressing for patients. Honey wound dressing has many clinical traits by fast healing of wounds by promoting tissue regeneration and gives maximum rate of reduced scarring.

Antidiabetic activity

The glycemic index is lowered by using honey instead of using glucose or sucrose for type I and type II diabetics. The absorption of digested food is reduced by the lowered glycemic index. Due to recent elaborate study about the honey can shows the various traits in humans such as:

- ✓ Insulin secretion
- ✓ Improves lipid profiles
- ✓ Haemoglobin concentration can be elevated
- ✓ Blood glucose level can be reduced.

Antimicrobial activity

The promising fact of antibacterial activity can be observed in various organisms are given in the below **table 2:**

Table: 2	
S. No	Bacterial species
1.	<i>Bacillus anthracis</i>
2.	<i>Corynebacterium diphtheriae</i>
3.	<i>Haemophilus influenzae</i>
4.	<i>Klebsiella pneumoniae</i>
5.	<i>Listeria monocytogenes</i>
6.	<i>Mycobacterium tuberculosis</i>
7.	<i>Vibrio cholerae</i>
8.	<i>Streptococcus pyogenes</i>
9.	<i>Pneumoniae</i>
10.	<i>Strep.,</i>
11.	<i>Streptococcus mutans</i>
12.	<i>Streptococcus faecalis</i>
13.	<i>Staphylococcus aureus</i>
14.	<i>Shigella dysentery</i>
15.	<i>Serratia marcescens</i>
16.	<i>Salmonella typhi</i>
17.	<i>Salmonella diarrhea</i>
18.	<i>Acinetobacter spp</i>
19.	<i>Pasteurella multocida</i>
20.	<i>Pseudomonas aeruginosa</i>
21.	<i>Proteus species</i>
22.	<i>Yersinia enterocolitica</i>

The anti-fungal activity can be showed by the honey are given in the below **table 3**:

Table: 3	
S. No	Fungal Species
1.	<i>Aspergillus</i>
2.	<i>Penicillium</i>
3.	<i>common dermatophytes</i>
4.	<i>Candida albicans</i>

- ✓ Honey has an inhibitory effect against the rubella virus.

Reference

Liyanage D.A.M. Arawwawala and Horadugoda G.S.P. Hewageegana, Health benefits and traditional uses of honey: A review. Journal of Apitherapy. Vol 2, January 2017.