



“Honey”: A real food for life

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Abstract

Honey is one of the most appreciated and valued natural products introduced to humankind since ancient times. Honey is used not only as a nutritional product but also in health described in traditional medicine and as an alternative treatment for clinical conditions ranging from wound healing to cancer treatment. The aim of this review is to emphasize the ability of honey and its multitude in medicinal aspects. Traditionally, honey is used in the treatment of eye diseases, bronchial asthma, throat infections, tuberculosis, thirst, hiccups, fatigue, dizziness, hepatitis, constipation, worm infestation, piles, eczema, healing of ulcers, and wounds and used as a nutritious supplement. The ingredients of honey have been reported to exert antioxidant, antimicrobial, anti-inflammatory, antiproliferative, anticancer, and anti-metastatic effects. Many evidences suggest the use of honey in the control and treatment of wounds, diabetes mellitus, cancer, asthma, and also cardiovascular, neurological, and gastrointestinal diseases. Honey has a potential therapeutic role in the treatment of disease by phytochemical, anti-inflammatory, antimicrobial, and antioxidant properties. Flavonoids and polyphenols, which act as antioxidants, are two main bioactive molecules present in honey. According to modern scientific literature, honey may be useful and has protective effects for the treatment of various disease conditions such as diabetes mellitus, respiratory, gastrointestinal, cardiovascular, and nervous systems, even it is useful in cancer treatment because many types of antioxidant are present in honey. In conclusion, honey could be considered as a natural therapeutic agent for various medicinal purposes. Sufficient evidence exists recommending the use of honey in the management of disease conditions. Based on these facts, the use of honey in clinical wards is highly recommended.

Keywords: antioxidant, flavonoids, honey, polyphenols, therapeutic agent, traditional

Introduction

Honey is a natural product formed from nectar of flowers by honeybees. Honey has been used by humans since ancient times, nearly 5500 years ago. Most ancient population, including the Greeks, Chinese, Egyptians, Romans, Mayans, and Babylonians, consumed honey both for nutritional aims and for its medicinal properties.

Honey is the only insect-derived natural product, and it has nutritional, cosmetic, therapeutic, and industrial values. Honey is reviewed as a balanced diet and equally popular for male and female in all ages. Honey no needs to refrigerate, it never spoils, and it can also be stored unopened at room temperature in a dry place.

The water activity (WA) of honey is between 0.56 and 0.62 and its value of pH is almost 3.9. Honey was utilized as a natural sweetener from ancient period since it has high level of fructose (honey is 25% sweeter than tablet sugar). Moreover, the use of honey in beverages is also increasingly popular. Nowadays, information on the usage of honey for the cure of many human diseases can be found in general magazines, journals, and natural products' leaflets and suggesting a wide variety of unknown activities.

Evidence indicates that honey can exert several health-beneficial effects including antioxidant, anti-inflammatory, antibacterial, antidiabetic, respiratory, gastrointestinal, cardiovascular, and nervous system protective effects. Although many investigations were done on honey, only a few are published. This study, which is a comprehensive review of

the current literature, highlights the therapeutic benefits of honey in the management of diseases.

Basic honey nutrition facts

Simple carbohydrates

Honey is a great source of simple carbohydrates. Nectar itself is composed mainly of sucrose and water. Bees add enzymes that create additional chemical compounds, inverting the sucrose into fructose and glucose, and then evaporate the water so that the resulting product will resist spoiling.

Natural Sugar 80% natural sugar - mostly fructose and glucose. Due to the high level of fructose, honey is sweeter than table sugar. Water content 18% water. Most beekeepers believe that the less water content the honey has, the better the quality of honey.

Minerals and vitamins

Honey contains natural minerals and vitamins which help the metabolizing of undesirable cholesterol and fatty acid on the organs and tissues into the system, hence preventing obesity and promoting better health for us. The vitamins present in honey are B6, thiamine, niacin, riboflavin, pantothenic acid and certain amino acids. The minerals found in honey include calcium, copper, iron, magnesium, manganese, phosphorus, potassium, sodium and zinc. Manuka honey has a higher than normal conductivity, a way of measuring the mineral content of a honey -- about 4 times that of normal flower honeys. The higher the conductivity, the better the value of the honey.

Antioxidants

One of the most encouraging honey nutrition facts - this natural sweetener is rich in phenolic acids and flavonoids, which are a source of natural antioxidants and is free of fat and cholesterol.

Calories

One tablespoon of natural sweetener honey contains 64 calories. How does this number compare with table sugar? Full account in: Amount of Calorie in Honey.

Glycaemic Index

Honey has a healthy Glycaemic Index (GI), meaning that its sugars can be gradually absorbed into the bloodstream to result in better digestion. We should try to avoid eating excessive high-glycaemic foods which would prompt an elevated insulin release in our body as a result of the pancreas being stimulated to metabolize the sudden surge of glucose into the blood.



Nutrition Facts	
Serving Size 339 g (1 Cup)	
Amount Per Serving	
Calories 1031	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 14mg	1%
Total Carbohydrate 279g	93%
Dietary Fiber 1g	3%
Sugars 278g	
Protein 1g	
Vitamin B6 4%	Vitamin C 3%
Riboflavin 8%	Folate 2%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Fig 1

Mysterical health benefits of honey



Fig 2

1. Honey boosts the immune system

The immune system operates by many mechanisms which protect the body and fight off disease. Being an anti-bacterial and anti-inflammatory, can take a lot of stress off the immune system. This allows the immune system to work more effectively on important tasks, and become stronger and more efficient.

2. Honey is comparable to pharmaceutical cough medicine

Honey has shown itself to be very effective as a cough suppressant- traditionally a popular home remedy for sore throats and coughs. Not only does it suppress coughs, but it eases the pain and soreness associated with having a cough. It can be easily made into a simple syrup and statistically honey has been shown to be as effective as over the counter medicine.

3. Honey helps body wounds heal faster

Honey's a great antibiotic. This means that if you apply it to wounds, your body can focus more on closing and repairing the actual wound instead of having to deal with fighting off bacteria and infections.

Manuka honey's "Unique Manuka Factor," a compound or compounds yet to be identified by researchers, is very useful when applied to wounds on the human body. The honey helps fight infections and allows the body to repair itself quicker.

4. Honey improves cognitive functions

Antioxidants help the brain absorb the nutrients it needs to function properly. Honey has a bunch of antioxidants in it that are known to help improve the brain's function. These antioxidants help brain cells receive proper nourishment, allowing them to function better.

5. Honey has antibacterial properties

Studies have shown that honey's extremely effective at disinfecting wounds from certain bacteria, like those that cause staph infections – particularly Staphylococcus aureus, which has shown to be extremely resistant to lots of typical antibiotics. Honey is a potent antibacterial compound. It's been shown to fight staph infections, which are notorious for resisting antibiotic treatments.

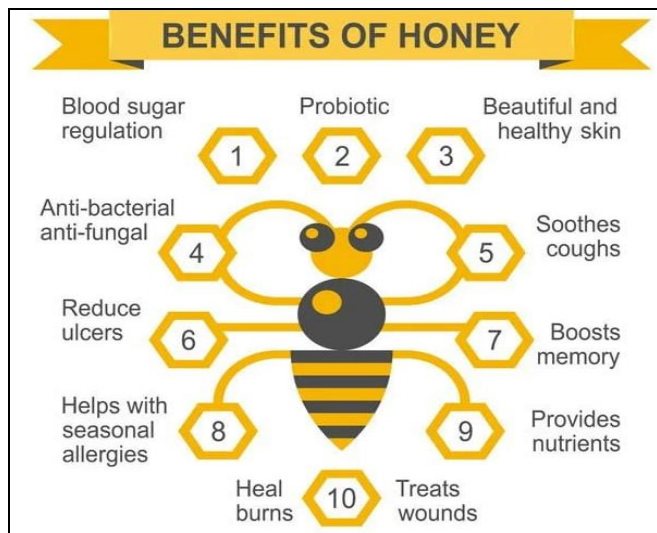


Fig 3

6. Honey can improve sleep quality

Honey is very useful for those who struggle with sleep. It contains the amino acid tryptophan, which is directly used in the synthesis of serotonin. It also causes an insulin spike which releases more serotonin. Serotonin is used to create melatonin, which is a hormone available in over-the-counter sleep aids. Achieving a healthy balance of melatonin is important for sleep.

7. Honey fights dandruff

Honey treats the skin pretty well. It's been shown to eliminate dandruff when applied to the scalp. Honey's a great anti-fungal, anti-inflammatory and anti-bacterial. Fungus, skin inflammation, and bacteria are things that can all lead to dandruff. These are also things that expensive shampoos aim to eliminate. Again, it seems that you'll be able to save money on your bills if you use honey instead of different hair products.

Making a simple paste with honey and water can compare to using anti-dandruff shampoo. Honey is also a great moisturizer and will leave your hair nicely conditioned; its ability to fight oxidation will keep your hair and skin looking healthy and fresh.

8. Honey can help fight Herpes infections

Honey has been studied for its efficacy as an agent to treat herpes outbreaks. It was shown to be more effective than acyclovir, which is one of the leading treatments. Using honey resulted in less sores, and the sores that emerged dwindled quicker.

9. Honey is a great source of natural energy

Honey is a great source of natural energy that doesn't have as many drawbacks of more stimulating substances like coffee. While it can still be easy to overdue your honey intake, the risk is much lower. Honey can be used to reduce your intake of caffeinated products.

The positive benefits of honey's massive antioxidant ability, combined with all the phytonutrients and other healthy surprises, vastly outweigh the fact that it's very sugary. Besides – most benefits become apparent with only a teaspoon or two of honey consumed daily. Unless you're eating entire jars of honey every day, you'll be okay.

10. Honey helps fight allergies

Taking honey regularly before allergy season can help the body prepare for the pollen. It contains trace amounts, and ingesting it regularly allows your body to build an immunity – similar to taking vaccines for specific diseases.

11. Honey helps relieve heartburn

Honey is good for fighting acid reflux and combating the symptoms of heartburn. It coats the throat like a layer of mucus would, which can take away the burning sensation. It also helps promote fluid digestion.

12. Honey prevents acne

Acne can strike during teenage-hood and adulthood, but either way, nobody likes to deal with it. Honey's well-known for its ability to fight acne. It targets a number of different causes for acne and eliminates them. It can prevent bacterial acne, it can unclog pores filled with dirt and can stop the skin from producing excess oil, which can also clog pores.

13. Honey can be used as an aphrodisiac

Honey has been used since ancient times as an aphrodisiac. It produces more testosterone in men, balances estrogen in women, and is said to improve fertility.

14. Honey treats sinus issues and colds

Honey's an anti-inflammatory and is used to eliminate some of the side effects caused by sinus inflammation. It's also an antibacterial and can help get rid of the bacteria that caused the cold in the first place.

15. Honey can treat yeast infections

Yeast infections can be tremendously uncomfortable for women. They can be caused by a number of things – menstruation, improper hygiene, allergy, exposure to different situations the list goes on. Honey is a very effective anti-fungal agent. It can be used to prevent Candida from proliferating – effectively halting yeast infections in their tracks.

16. Honey can help slow onset of cancer

Honey possesses natural carcinogenic fighting properties. Carcinogens are compounds that are known to cause cancer.

Honey is an anti-metastatic- means it can fight off cancer by shrinking the size of tumours. There are several phenolic compounds in honey that are responsible for its anti-cancer properties. This is all in addition to the rest of the antioxidants present in honey, which generally inhibit oxidative damage. Oxidation is one of the leading causes of cancer.

Conclusion

To date, researchers pay more attention to medicines with natural origin and believe that natural products may be efficient therapeutics in comparison with the synthetic drugs. One of the most important natural products is honey, which has been used for different medicinal purposes since ancient times. In addition to important role of honey in the traditional medicine, scientists also accept honey as a new effective medicine for many kinds of diseases. The most well-known effect of honey is antibacterial activity. Honey has also been reported to exhibit an inhibitory effect on yeast, fungi, leishmania and some viruses. Topical application of honey has been effectively used on mucocutaneous injuries such as genital lesions, superficial skin burns and post operation wounds. In addition, honey has been used in some gastrointestinal, cardiovascular, inflammatory and neoplastic states. The antioxidant capacity of honey which plays an important role in its useful effects, related to a wide range of compounds including phenolics, peptides, organic acids, enzymes, and Maillard reaction products.

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