



4. Potential Natural Antioxidant and Other Health Benefits of Honey and its Possible Limitations

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ABSTRACT

Honey is often called nectar. This honey is a sweet fluid made by honey bees and it's produced using the blossoms. Honey is hostile to bacterial, against viral and against contagious, and every one of these properties are utilized for wound recuperating. Because of the modest quantity of water it successfully dries the injuries and shields it. The rich sugar contents prevent microorganisms from development. Honey additionally contains a chemical that delivers the sanitizer H_2O_2 when it contacts an injury like damp surface. People around the world have been appreciating the health benefits of honey for thousands of years. As a characteristic food supplement, honey has been linked to infectious and health effects. It has been set up as a potential restorative cell reinforcement specialist for different organic sicknesses. The process of dehydration of bees is frequent inside the bee. Honey contains an exceptionally unpredictable synthetic creation that fluctuates relying upon the wellspring of the plant. It has been utilized as food medication since antiquated occasions. So, it is totally healthy and nutritious nourishment for kids and grown-ups. Albeit not a bush, honey is created by a plant and is broadly utilized all throughout the planet. Madhu is a helpful compound to help staff and competitors defeat weakness and recover strength. Kids, youthful and old would all be able to eat nectar together with no bad results or side effects. Honey contains a multivitamin tonic and has antibacterial properties you can take honey alone or with milk and warm water in or out Practice a spot of cinnamon powder nectar; it will keep you sound.

KEYWORDS

Medicinal, Honey, Biology, Microbiology, Nutritional science.

Introduction:

Honey is marvel in nature. Honey has been around for quite a while we actually know very less about it. It is just honey gathered from honey bees from numerous blossoms. Honey is a typical sweet and an amazing restorative device for a long time. In early human advancement the Sumerians were very much aware of guard and honey and it is to say that

protected to know to appreciate. This is the most straight forward and frequently the most ideal approach to lessen sore throat and it tends to be required some investment. Honey is finally called an ancient written archive of folk medicine. The specification of its use is completely inferior to the current therapy as a potential therapy. There is, however, a friendship among some researchers that offers a consistent proposal for the use of honey as a complement to natural products as a reflection of well-desirable current treatment therapy or combination antioxidant therapy. Antioxidants eating honey with one teaspoon of Tulsi (Tulsi) cures nausea, cough and runny nose. Leaf juice People with asthma can also benefit by consuming honey every day. Ayurveda recognizes honey as a great medicine that is able to provide life span. Osteoporosis is another situation that can be forestalled by ordinary nectar consumption. Modern research has shown that honey is effective against stomach and bone cancers by creating wonderful effects of honey. Eating 1 tablespoon of cinnamon powder and 1 teaspoon of honey 3 times in 1 day reduces the symptoms of cancer in a month. Honey contains several antioxidants, effective against the growth of cancer. Snazzy medication guarantees that honey is compelling in treating stomach ulcers and is a protected and delicate approach to manage this horrendous issue. Obviously in the body, honey has over and over again shown that it can clear the most profound injuries the most obstinate agony in certain spaces, where present day medication is exceptionally hard to obtain, honey is as yet being utilized to treat consumes and injuries. It is applying straight forwardly to the space, and covered with hygienic bandage or fabric. The fabric is taken out if new utilization of honey is required. The impact of the mending properties of Honey can be emotional. The blend of nectar shifts from blossom source to source. It shows a wide range of remedial properties like mitigating, antibacterial, against mutagenic, quick twisted recuperating, anti-toxin, antiviral, antifungal and antitumor impacts.

Chemical Composition of Natural Honey:

It is composed of at least 181 elements of no small fame-honey. Its unique taste is the result of complex chemical processes, which is why sweet syrup alternatives simply cannot be compared. They cannot imitate the chemical knowledge of Mother Nature. Last year, bees in the United States alone produced a total of 158 million pounds of honey. It's a lot of chemistry.

- ❖ **Carbohydrates:** Shockingly, these contain the primary piece of honey – about 82%. The sugars present are monosaccharides such as glucose (30.45%) and fructose (39%), disaccharides (~8%) such as maltose, sucrose, furanose, isomaltose, cozymos and maltulose. There are additionally a few oligosaccharides (4.7%), including Illus, Thunderdose, and Panoz, which are framed from the inadequate breakdown of the greater saccharides presence in honey and hantide.
- ❖ **Vitamins and Minerals:** Honey is low in vitamin B, pantothenic acid, riboflavin, folic acid, niacin, and nutrient B6. It contains some vitamins like vitamin C and minerals like iron (Fe), potassium (K), calcium(Ca), zinc (Zn), phosphorus (P), chromium (Cr), magnesium (Mg), manganese (Mn) and selenium (Se).
- ❖ **Antioxidants:** The primary gatherings of cell reinforcements in honey are flavonoids, one of which, Pinocembrine, is remarkable to nectar and honey bee propolis. Ascorbic corrosive, catalase and selenium are additionally cancer prevention agents. All in all, the hazier the nectar, the more noteworthy its cancer prevention agent properties.

- ❖ **Proteins and amino acids:** Honey contains various chemicals, including invertase, which changes sucrose into glucose and fructose; Amylase, what separates starch into more modest units; Glucose oxidase, which changes glucose over to gluconolactone, coming about in gluconic corrosive and hydrogen peroxide; Catalysts, what separate peroxides framed by glucose oxidase into water and oxygen; and acid phosphorylation which eliminates inorganic phosphate from natural phosphate. Honey likewise contains eighteen free amino acids, the most plentiful of which is proline. The main amino amino is proline Honey ripe size measurements 71. Chronic components of ordinary injuries ought to be in excess of 210 mg/ kg. Value below 180 mg/ kg means honey is probably adulterated by adding sugar. Honeys proteins are mainly enzymes, reviewed by White 75 Bees add enzymes at different times honey ripening process. Digestive (amylase) digests starch from maltose and is heat and relatively stable Storage invertase (saccharin, α -glucosidase), please convert mainly glucose and sucrose Fructose, however, converts many more sugars.
- ❖ **Others element:** Minor measures of nutrient riboflavin, niacin, folic corrosive, pantothenic corrosive, nutrient B6, and ascorbic corrosive. Different minor components incorporate Calcium, Iron, Zinc, Potassium, Phosphorus. Foras, Magnesium, Selenium, Chromium and Manganese a natural acids are other significant gatherings of machines, for instance, acidic, battery, citrus, succinic, lactic, malic and gluconic acids and a couple of other fragrant acids. The different catalysts present in nectar are glucose oxidase, sucrose diastase, catalysis and corrosive phosphatase. A portion of the distinguished flavonoids and phenolic compounds in the recognized honey incorporate campferol, quartcetin, chrysin, pinobexin, lutlin, epigenin, pinosembrin, genistein, hesperitin, p-viric corrosive, narcinid corrosive, glycic corrosive, glycyrrhizin, Flavonoids and phenolic corrosive concentrates are known to be exclusively answerable for these cell reinforcements and opposite results of nectar.

Average Composition in Honey:

Components	Average
Water	17.2
Fructose	38.19
Glucose	31.28
Sucrose	1.71
Disaccharide calculated as maltose	3.71
Higher sugar	1.5
Free acid as gluconic	0.43
Lactone as gluconolactone	0.14
Total acid as gluconic	0.57
Ash	0.169
Nitrogen	0.041
Minerals	0.2

Potential Natural Antioxidant and Other Health Benefits of Honey...

Components	Average
Amino acid as protein	0.3
pH value	3.9

Honey's Nutritional Value:

Honey is mainly made up of fundamentally of carbohydrates and water. It contains a few follow sums minerals and nutrients. You can discover calcium, iron, magnesium, zinc, potassium, niacin and riboflavin in nectar additionally contain a combination of phenolic acid and flavonoids in honey.

These are cancer prevention agents that take out conceivably damaging free extremists in the human body. The USDA gives the accompanying data to 1 tablespoon (21 grams) of 100% unadulterated honey bee.

Calories	64mg
Fat	0mg
Sodium	0mg
Carbohydrates	17mg
Fiber	0mg
Sugars	17mg
Protein	0mg

Medicinal Properties:

1. Honey is made by thick, sweet fluid and Honey can be low in nutrients and minerals some plant compounds are high.
2. Honey contains various cancer prevention agents, including phenolics intensifies like flavonoids.
3. Some investigations have shown that nectar improves the heartRisk factors in individuals with diabetes. Notwithstanding, it additionally expands glucose levels - so it can't be viewed as Healthy for diabetics.
4. Eating honey can prompt moderate decrease Blood pressure is a huge danger factor for coronary illness.
5. Honey appears to positively affect Cholesterol levels. This prompts an unobtrusive decline altogether and "terrible" LDL Cholesterol when raising "great" HDL cholesterol.
6. Elevated fatty substances are a danger factor for this Heart infection and type 2 diabetes. A few examinations have shown that nectar can be diminished Triglyceride levels, particularly when utilized as a substitute for sugar.
7. Honey cans for babies over one year old go about as a characteristic and safe hack suppressant. A few examinations have shown that it is equal Cough is more powerful than medication.

8. Honey can be a piece of it when applied to the skin effective treatment plans for consumes, wounds and numerous other skin conditions It is especially viable for diabetic foot ulcers
9. Added to the cell antioxidants in honey beneficial consequences for heart wellbeing, including increasing your blood stream reduces the risk of heart and blood clusters.

Biological Activities of Honey:

- ❖ **Antioxidants Activity:** Crude honey contains a variety of plant synthetic compounds that go about as cell antioxidants. A few kinds of honey contain cancer prevention agents like products of the soil. Cancer prevention agents help shield your body from cell harm because of free extremists. Free revolutionaries add to the maturing interaction can likewise add to the improvement of ongoing sicknesses like malignant growth and coronary illness. Studies have shown that the cell antioxidant agents in honey called polyphenols can assume a part in forestalling coronary illness.
- ❖ **Antibiotic activity:** Honey is one of the most seasoned known anti-toxins (antibiotics), following back to antiquate occasions. Egyptians often utilized honey as a characteristic anti-microbial and used as skin protectant. Nectar contains H_2O_2 trusted source which may represent a portion of its antibacterial characters. Moreover, honey has a low pH contain. These attempts to pull dampness away from microbes, making the microscopic organisms get dried out and vanish.
- ❖ **Apoptotic activity:** Nectar makes apoptosis in numerous kinds of malignancy cells through depolarization of mitochondrial membranes Various tests were performed against the anti-sweetness movement Groups of tissue and disease cell lines, for example colorectal breast, endometrial, prostate, renal oral and cervical disease crude honey animates the activity of chemotherapeutic treatments as 5-fluorouracil and cyclophosphamide.
- ❖ **Anti-mutagenic Effects of Honey:** The capacity of mutagenicity to instigate hereditary transformation is interlinked with cancer-causing nature. Honey displays solid anti-mutagenic movement. The impact of honey on UV and gamma radiation uncovered Escherichia coli cells was researched to notice SOS reaction, which is a mistake inclined fix pathway adding to mutagenicity.
- ❖ **Anti-inflammatory and immune modulatory activities:** The immune modulatory activity of honey on invulnerable and cutaneous cells associated with wound mending. Honey can either invigorate or hinder the arrival of specific components (ROS, MMP-9, cytokine) from resistant and cutaneous cells relying upon wound condition. Honey builds T and B cells, eosinophils, antibodies, monocytes, neutrophils and normal executioner cells age during essential and auxiliary insusceptible reactions in tissue culture A sugar, nigero-oligosaccharides, present in honey has been seen to have immune potentiating impacts. Non sugar elements of nectar are likewise liable for immune modulation.
- ❖ **Antimicrobial activity:** In medicinal the helpful utilization of nectar necessitates that it should display predictable and normalized antimicrobial movement. Drug and natural researchers need to recognize the botanical species which give hostile to microbial qualities. Honey obtained high osmolarity and low pH joined through the enzymatic get together of H_2O_2 applies an enemy of microbial outcomes.

Medicinal Effect of Honey:

Honey has been known as a medication of nature for quite a long time. Ongoing medical researches there are many healing uses for honey. The benefits of honey as natural and the use of honey Remedy.

1. **Burns:** Honeys have been utilized as a balm to mend consumes and forestall contaminations for millennia.
2. **Diabetes:** Honeys have a lower glycemic record than sugar, which implies it won't raise your glucose levels like sugar. It tastes sweeter than sugar and you can use fewer sweeteners in food. This makes nectar a preferred option over sugar. In one investigation, specialists found that substituting honey for unadulterated sugar was viable methods to keep glucose levels are stable.
3. **Cancer:** Nectar is commended for its cell antioxidant characters, which is the reason many are astounded in light of the fact that it can help forestall or treat malignant growth. A recent report from Iran shows how honey influences renal cell carcinoma, a kind of kidney malignant growth. Scientists have tracked down that nectar is viable in protecting malignancy cells from manifolds and they infer that it propels further investigation as a therapy for cancer.
4. **Wound care:** Topical use of medical-grade honey has been shown to promote wound healing, particularly in burns. Honey can sterilize wounds and promote healing, and also reduce pain, odour, and wound size.
5. **Psoriasis:** Psoriasis is a common skin condition that causes redness, blisters, itching and even sores. It is usually treated with topical creams that contain corticosteroids or vitamin D but honey can be more effective.
6. **Herpes:** Studies conducted in Dubai have shown that honey is an effective topical treatment for both oral and genital herpes. Honey can heal wounds from herpes just as quickly as those found in any pharmacy and it is even better to reduce itching.
7. **Cardiovascular Disease:** Cancer prevention agent (antioxidant) in Honey may be related with lessen hazard of coronary illness.
8. **Cough:** Studies have shown that eucalyptus honey, citrus honey and labiate honey can act as a reliable cough suppressant for upper respiratory tract infections and acute night cough in some people.
9. **Hair loss:** Those who suffer from hair loss or baldness can apply hot olive oil paste Table spoon or honey, one teaspoon cinnamon powder before bath and place it around 15 minutes and then wash the hair. It was kept for 5 minutes but it seemed very effective also.
10. **Cholesterol:** Two tablespoons of honey and three teaspoons of cinnamon powder mixed 16 If the cholesterol patient is given an ounce of tea water; It lowers cholesterol levels Body by 10% in 2 hours. As mentioned for arthritis patients, if taken 3 times a day Pure honey, according to information in the journal Chronic Cholesterol Healing Cholesterol complaints can be relieved by playing with food every day.
11. **Colds:** The individuals who experience the ill effects of normal or serious colds should be taken 1 teaspoon of hot honey with one-fourth teaspoon of cinnamon powder like clockwork. This interaction will be the most curable to clear chronic disease, runny nose and sinuses.

12. **Pimples:** Take 3 teaspoons of honey and 1 teaspoon of cinnamon powder glue. Apply this glue on the pimples prior to dozing and wash it next morning with warm water. Whenever done every day for about fourteen days, it eliminates pimples from the roots.
13. **Skin infections:** Applying cinnamon powder and honey in equivalent parts on the influenced parts for fixes dermatitis, ringworm and a wide range of skin contaminations.

Limitations of Honey:

- ❖ **Allergic reactions:** Eating crude honey can cause gentle to direct sensitivities. It is the natural nectar of blossoms that can contain dust, pesticides, insect sprays and heaps of different synthetic substances. Its immediate intake may prompt the improvement of unfavorably susceptible manifestations like expanding, tingling, aggravation, rash, perspiring, asthma, coughing, honey side effects and honey application to the symptoms of the mouth and so on.
- ❖ **Weight gain:** Taking honey with gentle heated water or lemon juice advances weight reduction and assists with diminishing abundance calories and spread additional pounds in our body. In any case, it is significant that eating a lot of nectar or eating honey alone isn't so useful for our body weight and can make us fat. This is on the grounds that honey contains a great deal of sugar which can be handily ingested into our circulation system and can prompt weight gain and stoutness since it contains a ton of calories.
- ❖ **Nerve damage:** Crude honey contains a gathering of chemical called 'grayanotoxins' which are harmful to our sensory system. All in all, these poisons are excluded from food during its sanitization. Notwithstanding, when crude honey is devoured, it basically comes and damage our nerve cells. Accordingly, it meddles with the ordinary functioning of our sensory system.
- ❖ **Abdominal Discomfort:** Over consumed of honey may cause genuine stomach uneasiness. Being wealthy in fructose, it can intrude on the supplement assimilation limit of your small digestive tract. Now and again it likewise prompts intense conditions like looseness of the bowels or an annoyed stomach.
- ❖ **Risks of child botulism:**It is not safe to give honey to children under 12 months. Sweet bacterial spores can cause baby botulism, a rare but potentially fatal disease.

Conclusion:

Honey is also known as Madhu in ayurvedic sacred texts is perhaps the main medications utilized in ayurveda. In ayurveda, honey is utilized for both inner and outside applications. Honey has a praiseworthy dietary benefit. Crude honey has astringent, anticonvulsant, anti-nociceptive and stimulant impacts and improves the oxidative state of the cerebrum. A few honey supplements consider have shown that nectar polyphenols have neuroprotective and nootropic impacts. Honey is an effective treatment for a range of oral ulcerative conditions Its natural immune-boosting capability. Quite possibly the main characteristic items is honey, which has been utilized for different lifeless purposes since antiquated occasions. The most notable impact of honey is its antibacterial action to reduce a variety of inflammatory, immune-regulating and estrogenic reactions. It can be concluded that bee honey is an invaluable natural ingredient with multiple uses. It is an effective medicine, a safe home remedy, cosmetics and a nutrient that can be used by people of all ages.

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