

Manuka Honey Natural and Medicinal Properties to Treat Gastric Ulcers and Various Uses in Human Health

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Abstract. Manuka Honey has various medicinal properties like wound healing, promotes oral health and soothes sore throat, gastric or peptic ulcers, *H.pylori* related bacterial infection and is able to improve your digestive system related to IBM (Irritable Bowel Syndrome). It also has antiviral or antibacterial properties so we can use it for treating various infection and also for the betterment of health. Manuka Honey is a type of honey native to New Zealand. MGO(Methylglyoxal) is a naturally occurring compound derived from dihydroxyacetone (DHA) which is also naturally present in the nectar of the Manuka Bush native to New Zealand and we can use Manuka Honey instead of PPI (proton pump inhibitor) and antacids. It has good medicinal and therapeutic property which helps in curing the stomach related issues or problems.

Manuka Honey made by bees which are able to pollinate the flower *Leptospermum scoparium*, and is commonly known as the Manuka bush. It has antibacterial properties which sets it apart from normal or traditional honey. MGO is an active ingredient and is responsible for its antibacterial effects. Additionally, Manuka Honey has antiviral, anti-inflammatory and antioxidant benefits. In fact it has traditionally been used for wound healing, soothing sore throat, prevents tooth decay and improves digestive system related issues. Manuka Honey is well known for its special medicinal and anti-microbial activity to fight against pathogenic bacteriarelated to ulcers and gastric inflammation because it contains the active ingredientMGO.

Keywords: Manuka Honey, Gastric ulcers, Peptic ulcers, MGO (Methylglyoxal), H.pylori (Helicobacter pylori), PPI (proton pump inhibitor), Antacids, Antibacterial, Antioxidant.

Introduction: Manuka Honey is mostly used as a natural substance for all kinds of wounds. It has been hailed as a go-to germ fighter in an age of animus which is naturally antibiotic. Exponent also said that Manuka Honey is able to treat other conditions from acne to sinus issue including gastric issues.

In the 19th century, Honey was introduced in Europe. . When the bees pollinate from this plant, their honey is more valuable than standard or normal honey. Manuka Honey hasn't been used traditionally as compared to normal honey. It is the product of New Zealand scrub plant that gives its name due to its higher concentration of MGO compound compared to others.

Advantages of Manuka Honey:

When it comes to food, raw honey is also associated with health benefits. Manuka is not a raw honey, but it has a specialty, with antibacterial and bacterial resistance. This means that bacteria shouldn't be able to build up a tolerance level to its antibacterial effect.

Manuka Honey is known to be effective for treating everything from sore throat to clear or remove spots on your skin.

Manuka Honey is also used in other problem which includes:

- Helping to heal the cuts and the scrapes.
- Clearing an infection.
- Easing to stomach aches or relieving pain.
- Improving the digestion issue.
- Boosting and strengthening the immune system.
- Producing energy.

According to the researchers or the article writers

As compared to the other honeys, Manuka Honey can heal wounds. All forms of honey are acidic (pH 3.5-4.5). The acidic properties of honey have been shown to promote the healing process.

The acidity also blocks the enzyme that breaks down the proteins and peptides in the human body which needs to repair on its own. The higher concentration of the sugar in honey also helps to protect wounds.

Honey is also low in moisture and draws a fluid from wound. This also helps to remove waste and speeds up the healing process. Honey is also able to remove the water out of the cells of an invading bacterium. Bacteria need water to grow and survive. Drawing the water out of invading bacteria will kill them off too.

Manuka honey benefits:

Antiviral properties. Throughout centuries, different types of honey have been already used as natural source of antibiotic. Recently, it was discovered that honey has power or the strength to kill the germs which comes from hydrogen peroxide (H₂O₂) produced by the help of a bee enzyme. Manuka Honey took steps ahead by attacking germs with a substance called MGO which was basically found in the nectar of some Manuka plants or the trees, this substance helps to heal the minor and chronic injury. For this type of honey, the federation of an U. S. Food and Drug Administration (FDA) has approved bandages infused with Manuka honey for both over-the-counter and prescription sales purpose. When there is high amount of MGO in the honey, there will be more antiviral and antibacterial properties.

Antibacterial properties.

Various species of bacteria are susceptible to the Manuka honey including *Staphylococcus aureus* also known as *S.aureus* and *Streptococcus*. Manuka honey is also effective against *Clostridium difficile*, a difficult to treat organism often spread in healthcare settings. Researchers are also interested in the fact that Manuka honey appears to attack the infections reliable. Source that form biofilm, or a slightly thin, and slippery layer of bacteria. This is because once an infection has formed a biofilm, it's considered to be untreatable or untouchable.

Till the date, there is not a single report of Source for honey. That suggests it might be successful against resistant organisms and long-lasting wound infections which do not heal with regular antibiotic therapy. For this reason, honey is considered as an ultimate option to fight against infection.

How we have to use Manuka honey.

Manufacturers of Manuka Honey labels their product with a unique Manuka factor (UMF) rating. This number gives a description of the levels of MGO and a precursor, dihydroxyacetone (DHA).

The range or the levels for UMF scoring is as follows:

- If it ranges between 0 to 4: than an impalpable amount is present
- If it ranges between 5 to 9: than low levels are present
- If it ranges between 10 to 15: than useful levels are present
- 16: superior, or highly high-grade levels are present

As the UMF number or the range increases, the level of these compounds also increases. To get the most benefit, use a Manuka honey with a high UMF.

For Benefits of Skin.

Manuka honey can help to reduce the inflammation and irritation associated with acne. To do this, apply Manuka honey directly to the skin. Be sure to cover the affected area with a thin layer of the honey.

You should leave this mask on for minimum 15 minutes. For better results you can increase this period to one hour or more.

You can also use Manuka honey to soothe eczema. According to researchers you may find success using a mixture of equal parts honey, olive oil, and beeswax. It's recommended to apply the mixture three times a day.

Human Digestion and boost immune system.

To check the digestive benefits of Manuka Honey, you could eat 1 or may be 2 tablespoons of it each day. And it's up to you how you have to eat. You can eat it directly or through any food source.

You can use Manuka honey into meal plan by spreading it onto a slice of whole-grain toast or adding it into yogurt. Tea drinkers can also add a spoonful to their morning cup.

If you are having a sore throat or if you just want to be pro-active, try to take 1/2 to 1 tablespoon of Manuka honey each day. If you aren't sick, this may help boost your immune system and prevent you from getting sick. If you already have a sore throat, it can help ease your symptoms.

How to overcome Wound care or healing

Manuka honey can also help to treat minor scrapes and cuts. Severe or deep cuts should be addressed by doctor as stitches or any other antibiotic care may be necessary.

You should be able to determine the amount of honey required by addressing the amount of fluids leaked from the wound. More leakage, the more honey you should have to use for dressing the area or part.

For this, apply the honey as a bandage. Then try to apply the bandage to the wound. And don't directly apply the honey to the wound.

Also, you may need to change the bandage and apply honey more frequently. This is because excessive leakage can dilute the honey rate and reduce its effects.

You can use sealed or waterproof dressing which may help to keep the honey from spreading outside of the bandaged area or the part covered by honey.

Disadvantages of Manuka honey.

For most of the people, Manuka Honey is safe to consume but there is no limit on how much Manuka Honey you can ingest. You have to look for dosage. But if you are diabetic person, first talk to your doctor before taking Manuka Honey. Same as other Honey, Manuka honey, has a high sugar content. This may can increase in your blood sugar levels also.

Some researchers are also questioning whether Manuka honey slows the healing of chronic wounds in people with diabetes. This is because when you use it alone MGO is toxic to living cells. There are number of reports of successful chronic wound treatment with Manuka honey, however more research or the clinical trials are also required.

If you have an allergic problem or issue you need to first consult your doctor. You will not be able to use Manuka honey without experiencing an allergic reaction.

What we have to look before buying Manuka honey:

Manuka Honey is widely available on online platform and in few stores. While purchasing, it is important to understand exactly what you are buying — **not all Manuka Honey are the same.**

Honey marked as "active Manuka honey," can mislead you. The term is referring to the antibacterial effects which are produced by hydrogen peroxide. These antibacterial effects are found in all types of honey especially in Manuka Honey.

To guarantee the unique healing properties of Manuka honey, look for a reference to "non-peroxide antibacterial activity (NPA) or a UMF rating". The UMF rating refers to the amount of NPA present in the honey.

Also opt for brands containing MGO, the unique antibacterial factor in Manuka Honey. The more the MGO, the better it is! (Seek doctor's advice before consumption).

Comparison between Manuka Honey and normal honey (some basic points).

Manuka Honey	Normal Honey
Dark honey made from the nectar of Manuka flowers, has special medicinal and health related qualities	Sweet, sticky and yellowish brown fluid made by bees and other insects collected from the nectar of flowers
Has special antiviral and antibacterial benefits	Number of health benefits like in diabetes, lowering blood pressure and reducing bad cholesterol
Especially contains DHA and MGO.	Contains vitamins , antioxidant , minerals sugar, etc.
Mainly found in New Zealand and Australia	Found everywhere
Dark brown color	Amber color

Literature review on the impact of Manuka Honey on *H.pylori* bacterial infection.

Manuka Honey is also able to treat gastric ulcers, *H.pylori* bacterial ulcer or peptic ulcer.

H. pylori is a species of bacteria that lives in the sticky mucus that lines the stomach and can be found in approx. 40% people in the UK. According to the survey; *H.pylori* normally does not cause any problem, however in 15% people affected by it can have a number of problems in the gut microbiota (intestinal health).

The biggest problem with *H. pylori* is ulcers in the stomach (gastric ulcer) or in the intestine (duodenal ulcer) and gastric inflammation. Ulcers are painful sores that are associated with indigestion and heartburn; however they cause a serious trouble when they bleed or burst causing severe abdominal pain.

H. pylori is strongly related with both the ulcers- gastric and duodenal, as per the study showed, that, a Singapore Hospital found approximately a population with 95% of duodenal ulcers and 85% of gastric ulcers which occurred in the presence of *H.pylori* infection. Eradicating the *H.pylori* infection has also been found to reduce the risk of bleeding ulcers, so if you are one of the 40% of people in the UK living with stomach ulcers then targeting *H.pylori* with Manuka Honey might give you a chance to cure the infection.

Manuka honey to fight against *H. pylori* bacterial infection.

The antimicrobial properties of Manuka Honey have shown to be successfully effective against a wide range of bacterial species including *H.pylori* mainly responsible for gastric related issues or infections.

Back in 1994, one University in New Zealand found that Manuka Honey was able to stop or reduce the growth of *H.pylori* after just 72 hours of usage with a reasonable oral dosage.

Manuka Honey kills the bacteria by a process called 'osmosis', wherein the sugars in the honey attract all the water molecules from the infectious bacteria which they need for their survival. Hydrogen peroxide is also present in Manuka Honey, which has been recognized by the scientists as a strong antimicrobial agent.

Get rid and Prevent from the Gastric Ulcers

Stomach ulcers or gastric ulcers are one of the most common illnesses or inflammation problem affecting humans. They are sores that form on the lining of the stomach, causing stomach pain, nausea and bloating. *H.pylori* is a common type of bacteria responsible for gastric or peptic ulcers. Researchers are suggesting that Manuka Honey may be help to treat gastric ulcers caused by *H.pylori*. For example, a test-tube study examined its effects on biopsies of gastric ulcers caused by *H.pylori*. The results were found to have a positive impact and implied that Manuka Honey is a useful source as an antibacterial agent against the bacterial infection of *H.pylori*. Thus more research is needed to fully assess its ability to treat gastric ulcers caused by *H.pylori*. Gastric ulcers can also be caused by excessive alcohol consumption and smoking, they also play a vital role in gastric ulcers or irritation of the stomach lining. The study in rats shows that the Manuka Honey helped in preventing alcohol-induced gastric ulcers or infections.

Why we are using Manuka Honey.

Instead of using antacids, blood thinners and PPI; we can use Manuka Honey for treating gastric ulcers and *H.pylori* related ulcers. So the bottom line is - we can consume Manuka Honey.

Antacids or PPI are not always the solution for stomach irritants.

Conclusion and future aspects.

According to a study and the medicinal properties of Manuka Honey, we can suggest, Manuka Honey is able to treat gastric ulcers stomach irritants and is also able to fight with *H.pylori* infection. So instead of using PPI or the antacids, we can use Manuka Honey for reducing stomach related problems.

Check the level and the volume rate of Manuka Honey and also seek doctor's advice for consumption and dosage.

In future we can also make a product by using Manuka Honey because it has good antiviral and antibacterial properties and is also beneficial for betterment of health.

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