Manuka Honey

Manuka honey is produced in New Zealand by bees that pollinate the native Manuka bush. Advocates say it treats wound infections and other conditions.

WebMD takes a look at what the science says about using Manuka honey as a medicine.

Healing Power of Honey

Honey has been used since ancient times to treat multiple conditions. It wasn't until the late 19th century that researchers discovered that honey has natural antibacterial qualities.

Honey protects against damage caused by bacteria. Some honey also stimulates production of special cells that can repair tissue damaged by infection. In addition, honey has an anti-inflammatory action that can quickly reduce pain and inflammation once it is applied.

But not all honey is the same. The antibacterial quality of honey depends on the type of honey as well as when and how it's harvested. Some kinds of honey may be 100 times more potent than others.

Components of Manuka Honey

Hydrogen peroxide is a component of honey. It gives most honey its antibiotic quality. But some types of honey, including manuka honey, also have other components with antibacterial qualities.

Another antibacterial component in manuka honey is methylglyoxal (MG). MG is a compound found in most types of honey, but usually only in small quantities.

In manuka honey, MG comes from the conversion of another compound -- dihydroxyacetone -- that is found in high concentration in the nectar of manuka flowers.

MG is thought to give manuka honey some of its antibacterial power. The higher the concentration of MG, the stronger the antibiotic effect. But, there may also be other compounds involved in the medicinal effect of manuka honey.

Honey producers have developed a scale for rating the potency of manuka honey. The rating is called UMF, which stands for Unique Manuka Factor.

The UMF rating is thought to correspond with the concentration of MG and other compounds. Not all honey labeled as manuka honey contains significant levels of antibacterial factors. To be considered potent enough to be therapeutic, manuka honey needs a minimum rating of 10 UMF. Honey at or above that level is marketed as "UMF Manuka Honey" or "Active Manuka Honey."

How Manuka Honey Is Used

The main medical use for Manuka honey is on top of a wound. It is generally used for treating minor wounds and burns.

Manuka honey is also marketed for use in many other conditions. These include:

- Preventing and treating cancer
- Reducing high cholesterol
- Reducing systemic inflammation
- Treating diabetes
- Treating eye, ear, and sinus infections
- Treating gastrointestinal problems

But the evidence is limited on whether or not Manuka honey is effective for these conditions.

The honey used to treat wounds is a medical-grade honey. It is specially sterilized and prepared as a dressing. So the jar of Manuka honey in the pantry should not be considered part of a first aid kit. Wounds and infections should be seen and treated by a health care professional.

What the Science Says About Manuka Honey

Several recent studies show Manuka honey is effective when used on top of wounds and leg ulcers. Studies also show it's effective in fighting infection and promoting healing.

But not all studies show that it helps to heal ulcers. And there is concern that Manuka honey may actually delay healing in people who have ulcers related to diabetes.

The Natural Medicines Comprehensive Database lists honey as being "possibly effective" to treat burns and wounds. The Cochrane Review notes that honey may shorten healing times in mild burns compared with traditional dressings. However, honey dressings do not increase leg ulcer healing at 12 weeks even when used with compression wraps.

Another recent study suggests that Manuka honey may be effective in preventing gingivitis and other periodontal disease by reducing the buildup of plaque. And in 2010, the scientific steering committee of the National Cancer Institute approved a proposal for the use of Manuka honey for the reduction of inflammation of the esophagus associated with chemotherapy.

Another possible benefit of honey is that, unlike antibiotics, it has not been reported to cause development of resistant bacteria. These so-called "superbugs" develop after repeated exposure to common antibiotics. They require special antibiotics to treat them.

So far, studies have not shown Manuka honey to be effective for treating high cholesterol or balancing the bacteria in the gastrointestinal tract.

Also, no major studies have looked at the effect of Manuka honey on cancer, diabetes, or fungal infections.

Possible Side Effects of Manuka Honey

The possible side effects of Manuka honey are:

- Allergic reaction, especially in people who are allergic to bees
- Risk of a rise in blood sugar
- Possible interaction with certain chemotherapy drugs

Most of the studies on Manuka honey have been with small numbers of patients. More studies are needed to decide if it is safe and effective for various medical conditions.