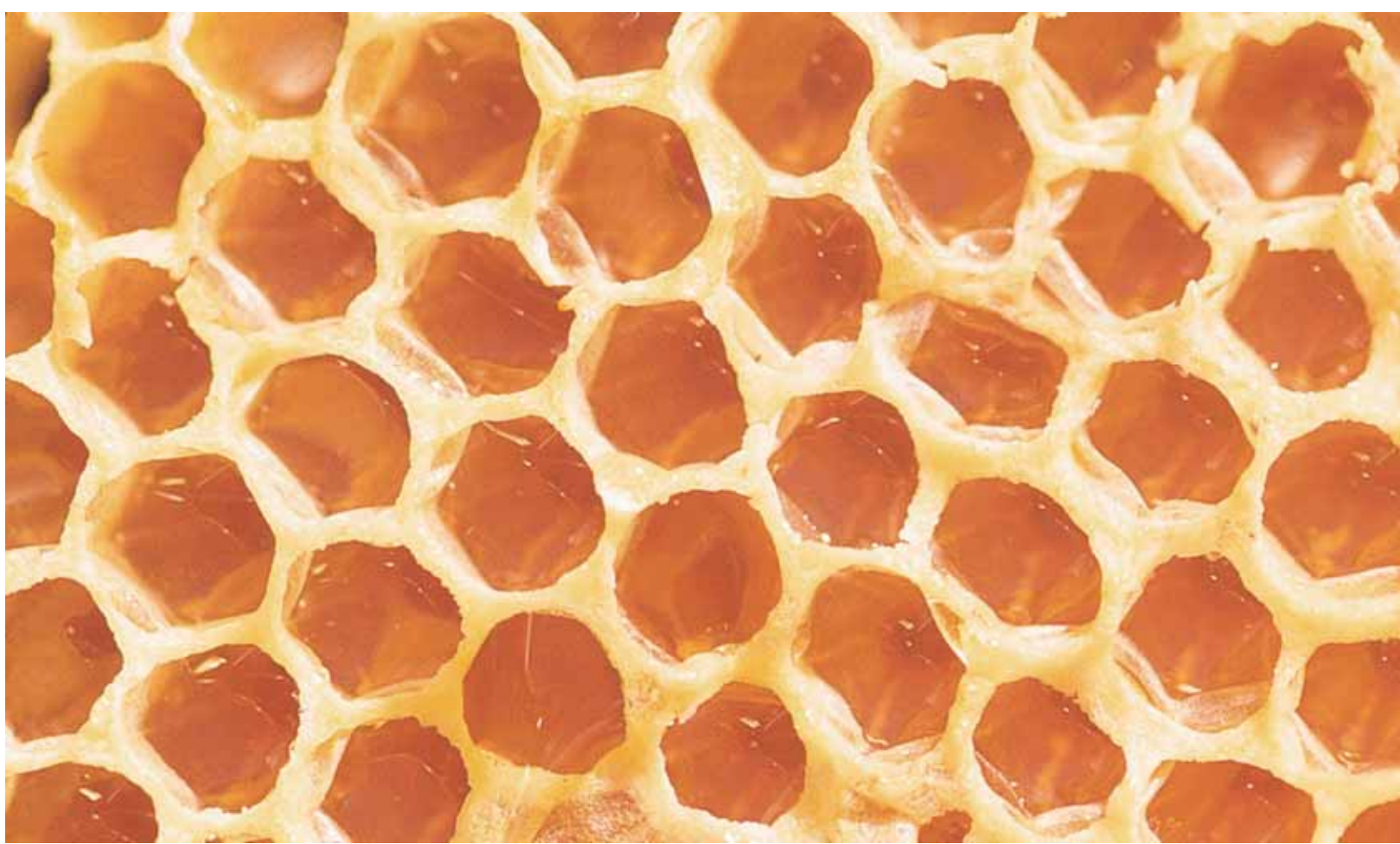


# Buzzing With Nutrition



Honeybees bring more  
than sweetness to the table

*Rosemarie Campbell*

**H**oney is a delicious treat spread on toast or eaten right out of the jar like Winnie the Pooh. But it is much more than just a yummy food product. Honey is the subject of a great deal of modern health research – and the results indicate this unique food deserves our closer examination.

A jar of honey likely loiters at the back of your kitchen cupboard labeled either “pasteurized” or “non-pasteurized”. We think of the pasteurization process as a health matter, ensuring products such as milk or apple juice are safe for mass consumption. However, the pasteurization of honey is a marketing issue not a health concern. The heating process in honey pasteurization extends the shelf life of the food by destroying the natural “seed” crystals that cause granulation and fermentation. Where packers want their product to remain liquid for a long period of time, as on grocery store shelves, pasteurization is a necessity.

If you’ve purchased raw or non-pasteurized honey and it has crystallized over time, you may be tempted to discard it. Actually, the crystallization process has nothing to do with its purity or moisture content, but depends on the proportion of the various sugars in the honey, which, in turn depends on the floral sources used by the bees. In fact, honey keeps almost indefinitely. Edible honey has been unearthed from Egyptian ruins. To make it liquid again, simply apply gentle heat. Creamed honey, on the other hand, has purposely been treated in such a way to encourage crystallization, resulting in crystals that are uniformly small – hence the smooth creamy texture.

Honey is a powerhouse of nutrition, delivering fructose, glucose, water and other sugars, in addition to many enzymes, vitamins, minerals and amino acids. In addition, it contains a host of antioxidants, which are used by the body to eliminate free radicals (nasty molecules which zip around in healthy cells and have the potential to damage them). It therefore makes a good alternative to sugar in food and drink. But, as with all things, moderation is the key because honey does contain lots of sugars.

“Honey does not have to be digested before it is absorbed,” notes Dr. Susan Percival of the University of Florida’s Food Science and Human Nutrition Department. “It is already the two simple sugars, fructose and glucose.” This means that the sugars from honey go directly to the bloodstream and can provide a quick boost when needed. Regular table sugar, on the other hand, is a disaccharide, which must be cleaved in two before digestion. An excellent source of energy, honey is recommended for athletes before and after exertion. It stimulates the heart, increases stamina and enhances the body’s powers of recuperation from prolonged efforts. When consumed daily, honey increases resistance to physical and intellectual fatigue and strengthens the body against the stress and strains of life.

It’s interesting to note that honey’s therapeutic powers have been used for centuries. According to a Theban papyrus written in 1870 BC, the Egyptians fed and healed their children with honey. The Greek philosopher Aristotle often prescribed different types of honey for different ailments. While honey was known to have powerful wound-healing properties in ancient times, its properties seem to have been forgotten but are now enjoying a revival.

Each honey possesses properties common to all honeys, individual types being distinguished by the unique composition and characteristics derived from the flowers and plants visited





by the bees. North America has many varieties, the most common being clover, but other delicious varieties are produced from the nectar of canola, alfalfa, blueberries, sunflowers, fruit trees, borage and wildflowers.

Especially noteworthy is Manuka honey. Its properties contain a component that is effective against resistant bacteria such as *staphylococcus aureus* (a drug-resistant hospital killer) and *helicobacter pylori* (the bacterium that causes ulcers). Bees gather pollen from the flowers of the Manuka Bush, which is indigenous to New Zealand and it seems the relatively pollution-free environment of that country enriches the honey making process. In recent years this honey has gained recognition in its use as a treatment for persistent skin infections and wounds with positive results from hospital trials. This exceptional product can be found in some health food stores.

Australian researchers have revealed the secret explanation for the deadly bug-killing properties of honey. Researcher, Shona Blair from the University of Sydney has found that when diluted honey is applied to a moist wound, it produces hydrogen peroxide, a known anti-bacterial agent. Blair says hydrogen peroxide is produced when the enzyme glucose oxidase (produced by bees) reacts with water in the wound and glucose in the honey. "It's like bleach," she says. "If you put bleach on your skin it would burn you, but this is at such a low concentration it doesn't harm the skin. Raw honey is best, as it has not been heated, which can affect its bacterial properties."

Honey helps to keep skin hydrated because of its hygroscopic nature, meaning that when exposed to the atmosphere, it

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draws moisture from the air. This is very useful to prevent scarring by keeping the skin moist and helping in the growth of new tissue. These properties allow honey to be used in cosmetics and make-up, keeping the skin moist and fresh.

Bees are perhaps the most economically valuable of all insects, not only producing honey and beeswax, but also Royal Jelly, Propolis and Bee Pollen. And, in the process, the industrious bee pollinates a great variety of crops.

Royal Jelly is richly packed with vitamins, minerals, proteins, amino acids and antibiotics – an excellent supplement for the older generation. It promotes vitality, balance and long life. Recognized by both scientists and doctors for its medicinal properties, Royal Jelly plays an important role in the prevention of certain health problems and the relief of others. It induces an improvement in energy and a feeling of euphoria; it can even restore the appetite. It stimulates the production of red blood cells and has a strong anti-infective action. It also is beneficial in neurasthenia, anxious states, minor depressive states, some dermatological problems, anemia, low blood pressure and arteriosclerosis.

Another product, Propolis, is a natural antiseptic and bactericide possessing anesthetic, scar-healing and anti-inflammatory properties. With no unpleasant side-effects and easily accepted by the human body, Propolis has long-since been recognized by beekeepers for its healing properties, particularly for sore throats, skin conditions, digestive problems, infections and inflammations.

Many people take Bee Pollen regularly to avoid nutritional deficiencies. It's full of proteins, amino acids, enzymes, vitamins and antibiotic substances. Nitrogen-based, this rich, active product energizes, stimulates and detoxifies the body. Doctors recommend it for combating fatigue, loss of appetite, anxiety, prostate problems, skin disorders and other nutritional deficiencies. It is highly recommended to aid the growth of children and adolescents. Pollen is sold in its natural state although it is also dried to retain its wonderful qualities.

For those of us who suffer from pollen allergies, eating locally produced honey may help to minimize the sniffing and sneezing from hay fever and other seasonal allergies. John Heinerman, a noted medical anthropologist and author of Heinerman's *Encyclopedia of Healing Herbs and Spices* (Prentice Hall, 1996), notes that the best course of treatment is

to take one tablespoonful of *local* honey after each meal, beginning a month before pollen season. He also recommends chewing some of the comb between meals. A hay fever sufferer himself, Heinerman says, "Although [honey and honey comb] have never actually cured my hay fever as such, I can testify that they have reduced the misery and aggravation of watery eyes and runny nose by at least 80 percent during the allergy season."

Some not-so-scientific research has also found that honey can speed alcohol metabolism to sober up a person. The high fructose content may help to relieve that morning-after hang-over and the tired feeling that goes along with it.

And while we're referring to alcoholic beverages, did you know mead is a special kind of wine created by fermenting honey in water? It is believed to be the oldest strong drink known to humans. The Greek god Dionysus was associated with bees, and was almost certainly a deity of mead in ancient times, rather than the god of wine he is seen to be today. Mead was not only found in the Mediterranean during ancient times; the Mayans made this beverage from the honey of the stingless bees of South America and East African Tribesmen still make a traditional fermented honey drink. Norse sagas frequently refer to rivers of mead flowing through paradise. Mead was popular until the 18th century, when sugar became widely available. As sugar's popularity rose and the price fell, it became the sweetener of choice resulting in mead and other drinks made with honey falling out of favor.

Have you ever wondered where the term "Honeymoon" came from? It's a direct reference to mead! Throughout history, many cultures developed customs for weddings. One custom called for the bride and the groom to drink mead on their wedding night. The couple would then continue to drink it each day for a complete month (one moon). The belief was, if this ritual were carried out, the wife would give birth to a son.

Today, mead is enjoying a revival, with nearly 100 commercial meaderies operating worldwide and countless thousands of meadmakers concocting the brew in their homes. Current interest in groups like the Society for Creative Anachronism (an international organization dedicated to researching and recreating the arts and skills of pre-17th-century Europe), Renaissance Faires and period-type movies and fantasy films has helped to increase visibility for this most-noble of drinks.

So it seems that the honeybee provides much more than a tasty sweet spread for toast. Winnie the Pooh might have been on to something after all!

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## Babies and Honey

It is recommended that infants under one year of age *not* be fed honey due to the possible presence of botulism spores. The heat during the pasteurization process is not high enough to break the tough coat of the spores and since the intestine of an infant under one year of age is sometimes not mature enough to digest them, in very rare cases it can germinate in the intestine, producing a toxin to make the baby sick. Toddlers over one year old, however, can eat honey without any concern.

## Not Just Clover

Here are some of the many kinds of honey available in specialty food shops.

Type of Honey	Beneficial Qualities
Acacia	Calming; energizing; helps ease digestion problems. Suitable for young children.
Buckthorn	Mild laxative effect; appetite stimulant.
Heather	Anti-anemic, energizing, diuretic, excellent for those suffering from rheumatism, severe tiredness, urinary problems and those convalescing.
Chestnut	Aids poor circulation.
Eucalyptus	Eases sinus and urinary problems.
Garrigue	Invigorating and fortifying. (The Garrigue is Mediterranean thorn scrub, developed on calcareous, alkaline soils. It can include Rosemary, Wild Lavender, Kernes Oak & Juniper)
Gâtinais	Revitalizing and nourishing. (From the flora & fauna of the French Gâtinais Region)
Orange Blossom	Relaxing (particularly good for children); antispasmodic; excellent for insomnia.
Rosemary	Stimulates biliary secretion and liver action. Also good for asthma sufferers and those with digestive problems
Thyme	General antiseptic, digestive stimulant; invigorating; aids muscle tone and physical recuperation.
Lime blossom	Relaxing; relieves migraines, indigestion and intestinal spasms.



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