

# InterNutritionals, LLC.

## Information on Bees and Bee Products

### RAW HONEY:

Raw honey is the concentrated nectar of flowers that comes straight from the extractor; it is the only unheated, pure, unpasteurized, unprocessed honey. Raw honey is the healthiest choice amongst the various forms of honey as it has the most nutritional value and contains amylase, an enzyme concentrated in flower pollen. Most of the honey found in the supermarket is not raw honey but commercial" regular honey, which has been pasteurized (heated at 70 degrees Celsius or more, followed by rapid cooling) and filtered so that it looks cleaner and smoother, more appealing on the shelf, and easier to handle and package. Pasteurization kills any yeast cell in the honey and prevents fermentation. It also slows down the speed of crystallization in liquid honey. On the downside, when honey is heated, its delicate aromas, yeast and enzymes which are responsible for activating vitamins and minerals in the body system are partially destroyed. Hence, raw honey is assumed to be more nutritious than honey that has undergone heat treatment. **It is important to take care not to give unpasteurized honey to infants as it contains a type of bacteria that, though harmless to older children and adults, can be very dangerous to those younger than 1 year.** To ensure the highest benefits from raw honey, use honey that has only been produced by beekeepers who do not feed their bees refined sugars or use harmful pesticides.

Raw honey can be used for the treatment of indigestion, coughs and colds, insomnia, headaches, general weakness, skin ailments and wound healing. Other benefits of raw honey are the following:

#### 1. Honey is Hygroscopic

Honey has a hygroscopic nature, which means when exposed to air, it naturally absorbs moisture in from the air. In treating open wounds, honey is useful as it could help prevent scarring by keeping the skin moist, encourage the growth of new tissues, and allow easy removal of any dressing by preventing dressing from becoming stuck to the skin. Honey's hygroscopic properties also make it an ideal ingredient in a lot of cosmetics as it helps keep skin hydrated and fresh and prevents drying. Thus, some people call honey a natural "humectant" as it attracts and retains moisture. When used in skin and hair treatments, honey trap and seal in the moisture leaving the skin oft and supple, and hair glossy and healthy.

#### 2. Honey is Antibacterial

Researchers began to document the healing properties of honey in the early part of the 20th century. This ceased with the development of antibiotics but recently the development of resistance to antibiotics has led to a resurgence of interest into the healing properties of honey. The effective antimicrobial agent in honey prohibits the growth of certain bacteria. It contains an enzyme that produces hydrogen peroxide which is believed to be the main reason for the antimicrobial activity of honey. As such, honey is a useful treatment for wounds and scalds. Cuts, abrasions and scalds can be covered in honey to prevent bacteria from entering the wound and promote healing.

Honey can help treat minor acne by attacking the bacteria that cause the outbreaks while moisturizing the skin to aid rejuvenation. Types of honey differ greatly in their antimicrobial potency, varying as much as a hundred fold. Honey derived from the Manuka bush, found in abundance in New Zealand, claims the highest potency of such antimicrobial properties.

#### 3. Honey is a Source of Antioxidants

Honey contains natural antioxidant properties that can destroy biologically destructive chemical agents which have been linked to many diseases such as cancer. Not only could honey's antioxidants help to eliminate free radicals in the body, they are also part of the nutrient supply for growth of new tissue. These precious honey properties help protect the skin under the sun and help the skin to rejuvenate and stay young-looking. As such, there have been an increasing number of manufacturers of honey skincare products such as sunscreens and facial cleansing products for treating damaged or dry skin.

**BEESWAX:**

Beeswax is a natural secretion from wax glands on the sides of the body of honeybees and is used primarily as a building block for the bees' comb cells in which the young are raised and honey and pollen are stored. To stimulate the production of beeswax, the honey bees feed themselves with honey and huddle together to raise the temperature of the cluster. To produce one pound of wax requires the bees to consume about ten pounds of honey.

Ranging from yellow to almost black, beeswax is extracted by boiling the honeycomb in water and skimming the wax off the top. It has a subtle natural aroma, the fragrance of honey ingrained with the other scents present in a beehive that is often pleasant enough for many honey lovers to just chew like a gum and swallow as a form of roughage. These compounds help to bind and emulsify ointments, lip balm, lipstick and lotions.

Beeswax works well in cosmetic products because of the "wax esters" that exist in both beeswax and human skin. As a natural hydrating ingredient that increases skin essential moisture, beeswax is safe to use and commonly found in hand cream and body cream that help retain natural skin moisture and relieve itch from sensitive skin.

**BEE POLLEN:**

Bee pollen is a restorative which combines the golden colored pollen that bees gather from a variety of flowering plants with plant nectar and bee saliva. At least 50 trips are needed to bring 1 gram of pollen back to the hive.

The bees use pollen for food, and it provides a tremendous health benefit to humans as well. indeed it is rich in nutrients, proteins, vitamins, and minerals from which humans also benefit. Bee pollen is rich in many minerals and vitamins, calcium, magnesium, manganese, potassium, zinc, riboflavin, thiamine and vitamins A, B6, C, D, E and K, and is a source of 12 different unsaturated fatty acids. It also supplies biotin, a vitamin that is important for the skin, hair and nails. Plus, it provides protein, essential oils, essential amino acids, carotenoids (important for the synthesis of vitamin A in the body) and flavonoids.

Bee pollen has an energizing effect on the body and improves general health, stimulating the metabolism and promoting healthy cell growth. Many of the substances in pollen are biocatalysts- compounds that must be present for chemical reactions in the body to occur.

**BEE PROPOLIS:**

Propolis is a resinous substance that bees collect from trees and plants. Bees use it as a natural antibiotic to protect their hive and as defense against disease in the hive. They do this by using it as a seal over foreign matter so that it does not pollute the hive as well as for creating doorways. It is made up of waxes, resins, fatty acids and amino acids. Hundreds of chemical properties have been identified in propolis and this differs from hive to hive as well as with the environment the bees live in and the time of day the propolis was collected. This makes propolis exceedingly complex which is why no one has attempted to synthesize the product.

Propolis has long been used as a natural remedy and it is thought that it's the numerous flavonoids which it contains that account for its wound healing benefits. Some studies suggest that it may be used against bacteria and viruses and other microorganisms when applied to infected areas topically. Propolis has anti-microbial action on both gram-positive and gram-negative micro-organisms. It contains constituents that increase membrane permeability and inhibit bacterial motility. It is commonly used for wound infection and other illnesses. Propolis has also shown to have potent anti-viral qualities, as well as immune boosting effects likely due to its high levels of vitamin B-complex, and notable quantities of vitamin C, E, and beta-carotene.

Propolis has also proven anti-inflammatory action and has been used to treat arthritis as well as allergies and asthma. It has even been shown to be effective against MRSA, the antibiotic resistant bacteria that is affecting many hospitals. People who are allergic to bees should however use propolis with caution as an allergic reaction to the substance could occur.