

National Nutrition Month: Sweet on Honey: Honey, You're Full of Energy and Nutrients

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Question: I know that honey is a natural sweetener, but does it have any other health benefits?

Known as nature's original sweetener, this favorite topping on toast and oatmeal offers a wide variety of nutrients for good health. Honey is composed primarily of carbohydrates and water, and also contains small amounts of a wide array of vitamins and minerals, including niacin, riboflavin, pantothenic acid, calcium, copper, iron, magnesium, manganese, phosphorus, potassium, and zinc.

Of recent interest is the antioxidant content of honey. Honey contains several compounds that function as antioxidants, one of which is unique to honey called pinocembrin. Dr. Susan Percival of the University of Florida's Food Science and Human Nutrition Department explains, "Antioxidants perform the role of eliminating free radicals, which are reactive compounds in our bodies. Free radicals are created through the normal process of metabolism and are believed to contribute to many serious diseases when left unchecked." Generally, darker honeys have a higher antioxidant content than lighter honeys.

Honey also is a natural energy booster. Dr. Percival notes, "Honey is a natural mixture of the simple sugars glucose and fructose. Recent studies suggest that this unique mixture of sugars works best in preventing fatigue and enhancing athletic performance."

Consumers have many choices when it comes to choosing a honey. There are approximately 300 varieties of honey in the United States. The color and flavor of honey differ depending on the bees' nectar source (the blossoms). The most common varieties in the southern United States include Clover, Orange Blossom, and Tupelo. In general, lighter colored honeys are mild in flavor, while darker honeys are usually more robust in flavor.

When cooking with honey, use recipes developed for using honey for best results. When substituting honey for granulated sugar in recipes, begin by substituting honey for up to half of the sugar called for in the recipe. With a little experimentation, honey can replace all the sugar in some recipes. When measuring honey, coat the measuring cup with non-stick cooking spray or vegetable oil before adding the honey. The honey will slide right out. A 12-ounce jar of honey equals a standard measuring cup.

When baking with honey, remember the following:

- Reduce any liquid called for by 1/4 cup for each cup of honey used.
- Add 1/2 teaspoon baking soda for each cup of honey used.
- Reduce oven temperature by 25°F to prevent over-browning.

Because of its high fructose content, honey has a higher sweetening power than sugar. This means you can use less honey than sugar to achieve the desired sweetness.

Store honey at room temperature – your kitchen counter or pantry shelf is ideal. Storing honey in the refrigerator accelerates the honey’s crystallization. Crystallization is the natural process in which liquid in honey becomes solid. If your honey crystallizes, simply place the honey jar in warm water and stir until the crystals dissolve. Or, place the honey in a microwave-safe container with the lid off and microwave it, stirring every 30 seconds, until the crystals dissolve. Be careful not to boil or scorch the honey. Also keep in mind that you can eat the honey in a crystallized form. Just scoop out of the jar and spread it on your toast or drop it in your tea.

Honey stored in sealed containers can remain stable for decades and even centuries! However, it tends to darken and lose its aroma and flavor over time. This is a temperature-dependent process, making the shelf life of honey difficult to define. For practical purposes, a shelf life of two years is often stated. If in doubt, throw it out, and purchase a new jar of honey.

Do not feed honey to infants under one year of age. Honey may contain *Clostridium botulinum* spores that can cause infant botulism - a rare but serious disease that affects the nervous system of young babies (under one year of age). *C. botulinum* spores are present throughout the environment and may be found in dust, soil, and improperly canned foods. Adults and children over one year of age are routinely exposed to, but not normally affected by, *C. botulinum* spores.

Spores are inactivated when manufactured food products (such as cereals or nuts) receive a roasting heat treatment. Graham crackers or cereal, for example, would not contain any viable microbial spores.

Try these quick and easy ways to add more honey to your meals:

- Stir a spoonful of honey into your morning citrus drink or drizzle it over a grapefruit half.
- Stir honey into peanut butter and use as a dip for carrots or celery.
- Stir a spoonful of honey into a glass of water before heading out for your morning jog or trip to the gym.
- Add honey and fresh fruit to yogurt for a power-packed snack.

For a tasty side dish for your next meal:

### **Honey-Glazed Carrots**

1/4 cup honey

1/4 cup butter or margarine

1/4 cup apple juice

1/4 cup water

1 package (16 ounce) baby carrots (about 3-1/2 cups)

In medium saucepan over high heat, bring honey, butter, apple juice, and water to a boil. Add carrots. Reduce heat and simmer, stirring occasionally, for 10 minutes, or until liquid is reduced to a glaze and carrots are tender. Makes 4 servings.

Source: National Honey Board, [www.honey.com](http://www.honey.com) .