

Commentary 3 Open Access

## The Royalty of Honey Bees

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Royal jelly, also called Honey Milk, is a thick, white, nutritious substance fed to bees. Produced in the glands on the heads of active bees, it is supplied with active larvae up to the third day of life and queen bee larvae during the larval period. Its components include water, protein, carbohydrates, and various trace elements (mineral salts) and vitamins. It is rich in pantothenic acid, a vitamin that helps the body absorb fat and carbohydrates and contains vitamin B6, or pyridoxine, which is essential for the production of amino acids. Royal jelly is a bee-milk substance that provides nutrients to the growing bees and queen. Some doctors often use royal jelly to strengthen the immune system and help fight the effects of aging. Some believe that it can cure or prevent a number of illnesses, such as diabetes and even promote fertility. The use of royal jelly falls under apitherapy, a type of medicine that uses bee products such as bee pollen and venom. You can get raw royal jelly or processed forms.

Due to the large amount that will be required to produce beneficial effects on humans and the availability of similar nutrients from other sources, royal jelly is not considered essential to human diet. It has been used in cosmetics such as face creams and skin conditioners, but allegations of its rejuvenating properties have not been confirmed. Royal jelly is composed mainly of water, sugar, fatty acids, and several unique proteins, one of which is called royalactin.

Many of the health benefits of royal jelly are based on the effect of royalactin on developing bee larvae. When a queen bee dies, the worker bees will feed the selected female caterpillar a high amount of jelly, whose use alters the insect's DNA and turns it into a queen. Claims that eating royal jelly can help improve

## ARTICLE HISTORY

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fertility from this fact. Protein-derived proteins, as well as several antioxidants and antibacterial compounds, are believed to provide health benefits to humans. Among the conditions that royal jelly is said to cure are: Asthma, Atherossteosis, Diabetes, Fatigue, Hay fever, High cholesterol, Inflammation, Kidney disease, Pancreatitis, Premenstrual Syndrome (PMS). It is said that even Royal jelly reduces the aging process by eliminating free radicals or fighting infections by strengthening the immune system. It is also used to increase endurance and well-being (not just to treat certain health conditions).

Royal jelly may control blood sugar, suggests a 2016 study in the Canadian Journal of Diabetes. According to a study, 50 people with type 2 diabetes were given a placebo or 1,000 milligrams (mg) of royal jelly three times a day. At the end of the eight-week study, the group administered royal jelly with a significant decrease in blood glucose, while those given placebo had a slight increase. Despite the positive results, a 2019 update to the World Journal of Diabetes found little benefit in using royal jelly. Based on a survey of 18 clinical studies, the researchers concluded that the quality of evidence supporting the use of royal jelly in diabetes was very low.

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## **Conflict of Interest**

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