Natural Healing Remedies From The Hive
The Power of and Benefits of - Royal Jelly, Bee Pollen, Propolis and Honey

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Introduction.

As honeybees buzz from blossom to blossom and back to the hive they are creating some of the most powerful natural ingredients known to man.

Centuries of use and research have failed to uncover the secrets to the potency of bee products when used as food or dietary supplements. Likewise, the longevity of the honeybee remains something of a mystery.

The Queens remarkable reproductive powers and lifespan are of significance, but also the way the entire population has withstood the persistent efforts by mankind to abolish the species. Not deliberately of course, but the continued use of crop pesticides and chemicals has placed the little insects' very survival in jeopardy.

Colony collapse disorder, the term given to the phenomenon of the diminishing honeybee population, is still a very serious issue, but it seems that the remarkable ability of this insect to withstand all attempts at eradication is winning through.

The bees, using the very substances that we crave for nutritional support, have found a way to combat the impact of man-made chemicals and to adapt their immune systems to withstand the threat. The hive population is bouncing back from the brink, their ability to protect themselves a testament to the potency of the substances found within the hive.

Over the coming chapters we will learn more about the tools the honeybee has at its disposal, and the way man can benefit from the same tools to improve health and guard against the many challenges to the health of our immune system.
CHAPTER 1 - ROYAL JELLY

Royal Jelly is a creamy white substance synthesized by the common worker bee for the sole nourishment of the Queen bee. The Queen bee is remarkable in her extended longevity and reproductive capability when compared to the worker bee. The Queen lives almost ten times longer than the worker bee: five to six years for the Queen, yet less than six weeks for the worker bee. The Queen grows to be almost 50% larger than the worker and has exceptional reproductive capabilities, laying almost 2500 eggs in a single day.

So how does the Queen bee achieve this remarkable longevity – Royal Jelly.

The Queen is hatched from the same egg as the worker bee but is selected to receive a diet of pure royal jelly, while the common worker bee feeds off honey and other substances around the hive. Royal Jelly transforms the queen into an incredible insect, enhancing her physical performance to remarkable levels. Not surprisingly man has shown much interest in this substance, regarding it as the ‘elixir’ or ‘crown jewel’ of the hive. Many studies have been performed to try to establish its nutritional content and the effect of its nutrients on living beings. Despite these extensive studies, the actual chemical make-up of royal jelly is still something of a mystery.

Royal jelly is the only natural source of pure acetylcholine. It has antibacterial and antimicrobial properties and has been implicated as beneficial in a wide range of health conditions. It is associated with benefits to bronchial asthma, insomnia, and many skin problems. It is known to support the immune system and may be of benefit in liver, kidney, and pancreatic diseases as well as stomach ulcers and bone fractures.

What is the chemical composition of Royal Jelly?

Royal Jelly contains approximately 12% protein, 5-6% lipids and 12-15% carbohydrates. Its B Vitamin content is high, and with 17 amino acids, including all 8 essential amino acids, it is a nutritious hormone-rich substance with a wide spectrum of potential benefits. Royal Jelly also contains around 15% aspartic acid, which is important for tissue growth, muscle and cell regeneration.
**Vitamin Content**

Vitamin B1 (Thiamine) .................... 1.5 to 7.4 mcg.
Vitamin B2 (Riboflavin) .................... 5.3 to 10.0 mcg.
Vitamin B6 (Pyridoxine) ............... 2.2 to 10.2 mcg.
Niacin (nicotinic acid) .................... 91.0 to 149.0 mcg.
Pantothenic Acid .............................. 65.0 to 200.0 mcg.
Biotin .............................................. 0.9 to 3.7 mcg.
Inositol ............................................. 78.0 to 150.0 mcg.
Folic Acid ........................................ 0.16 to 0.50 mcg.
Vitamin C ........................................ Trace

The amino acids in royal jelly are of significant interest to nutritionists. Long associated with the ability to fight ‘free-radicals’ in the body, amino acids form the very basis of our chemical make-up, and are essential to growth and the ability to fight infection and disease. There are 23 amino acids and 9 of these are classed as essential, they can only be obtained through what we eat. The other 14 amino acids are classed as dispensable amino acids (DAA) as the body is capable of synthesizing them from other amino acids in the system. The importance of amino acids and the fact that they are so abundant in bee products warrants special attention.

**Royal Jelly and our health**

Royal Jelly (along with bee pollen, propolis and honey) contains a natural source of essential nutrients which the body needs to maintain good health. Maintaining good health is especially hard in today’s increasingly toxic environment. Both our food supply and our diet is often deficient in important nutrients. Therefore it helps to supplement our diet with products such as royal jelly and the other products from the beehive.

Royal jelly also has a yeast inhibiting function which may prevent conditions such as thrush and athlete’s foot. It is also used to treat muscular dystrophy, MS and Parkinson’s disease as well as reduce allergic symptoms and help control cholesterol levels. Also of significance, Royal Jelly has been found to be of great help in boosting the body’s resistance to the harmful side effects of chemotherapy and radiotherapy.
These treatments attack the immune system at its very core, and in many cases the actual treatment delivers a debilitating blow and not the illness itself.

Royal Jelly with its high amino acid content can help the immune system and provide a basic defense against external elements that ordinarily attack the immune system and reduce our body’s capability for defense. Supplementing our diet with Royal Jelly helps to rebuild the good cells that are destroyed by chemotherapy and helps to strengthen the immune system.

Royal Jelly also contains the amino and gamma globulin, which helps the immune system fight off viral infections. It also contains sterols, phosphorous compounds and acetylcholine, which are needed to transmit nerve messages from cell to cell.

Like propolis, royal jelly also appears to have anti-tumor properties. A team of Japanese researchers gave royal jelly to one of two groups of laboratory mice before transplanting different types of cancer cells in them. The royal jelly had dramatic effects on sarcoma cells. The life-span of the mice was extended by about one-fifth and tumor sizes were about half the size, compared with untreated mice, according to a report in the journal Nippon Yakurigaku Zasshji-Folia Pharmacologica Japonica (Feb. 1987;89:73-80).

**Summary of Associated Benefits**

In summary, Royal Jelly has been noted for its positive benefits on:
* energy
* chronic fatigue
* skin / hair / nails / bones / joints
* hormonal regulation
* asthma
* sexual vitality / impotence
* weight regulation
* rejuvenation - recovery from illness
* immune system stimulant
* cholesterol levels
* cardiovascular health
Can Man Recreate Royal Jelly?
Evidently not. Studies have uncovered some of the nutritional properties of this substance, but much remains undiscovered.

Dr. Albert Saenz of the Pasteur Institute in Paris wrote: "Numerous studies ... demonstrate the existence of fractions in Royal Jelly which correspond to 97 percent of the substance, plus an undermined fraction whose very presence could explain the remarkable and mysterious properties of Royal Jelly." He continues, "Here's yet another product of the beehive with a touch of the bee's magic in it. I suppose some day science will figure out what these unidentifiable elements are and some researcher will try to manufacture them. Until then, the only place to get these mystery nutrients is from the bees."

How is Royal Jelly Processed for Human Consumption?

Royal Jelly is a liquid containing approximately 67% water, and as such is prone to contamination once it is removed from the sterile environment of the beehive.

Once removed from the hive it must be processed quickly to prevent contamination, ideally within two or three hours. Processing generally involves one or a combination of the following steps:

* Treating the product with a chemical preservative.
* Lyophilizing the product (removing the water, often termed freeze-drying)
* Adding a natural preservative like honey.
* Freezing the substance or attempting to maintain it in a refrigerated state.
The favored process is lyophilizing or freeze-drying. This removes the water without effecting the nutrient quality of the product and creates a white powder which can be capsulated for human consumption.

Once in capsulated form the product generally has a shelf life of 3-4 years and does not require refrigeration.

Many questions are raised about the nutritional quality of Royal Jelly, and usually relate to the issue of processing: "freeze-dried versus non-freeze dried".

Freeze drying ‘locks-in’ the nutritional content of the product and removes many of the issues associated with handling the product down the line. For example, if you choose liquid royal jelly which is sold as ‘requiring refrigeration’, how do you know that the product has been stored and transported in a refrigerated state, and that it isn’t in a partially decomposed state with diminished nutritive properties?

**Summary:-**
Royal Jelly – A veritable jewel of nutrition and recognized as a potent bringer of energy, health and vitality. It is rich in minerals, natural hormones, B vitamins, fatty acid, and folic acids, along with aspartic acid which is important for tissue regeneration and growth. It contains all essential amino acids required to sustain life.
It is taken as a stress reducer and to promote recovery from fatigue. Its balancing properties are associated with many benefits to our important body systems and for this it is taken by a large number of menopausal women, and by men looking for improved sexual vitality.
CHAPTER 2 - BEE POLLEN

Referred to as the 'Food of the Gods', bee pollen is a superbly nutritious product and is used world-wide as an energy boosting supplement.

Pollen is the male seed of flowers, created in the stamen within the blossom of the plant. Honeybees collect the pollen and during the collection process it is combined with secretions from the bee, as it is removed from the stamen of the plant. The bee uses its tongue and mandibles to collect the pollen, it then brushes the pollen from around its mouth area using its forelegs and moves the now sticky substance towards its second pair of legs. The worker bee assembles a mass of pollen, all of which has been mixed with the bee secretion and moved to storage on the bees body and legs. When the bee has collected sufficient pollen it returns to the beehive to deposit the load.

What is the chemical composition of bee pollen?

Because of the plant origin of bee pollen the actual chemical composition of it will vary depending on location and season. Regardless of regional and seasonal variations, the product is very rich in B Vitamins 1,2,3,5,6 and B 12, contains Vitamin C, A and E along with Carotenoids and Folic acid. Bee pollen also includes collagen and lecithin. Lecithin is associated with the dissolution of body fats and is an effective constituent of bee pollen that can help with weight loss and weight control.

Bee pollen contains all of the essential components of life. The percentage of rejuvenating elements in bee pollen remarkably exceeds those present in brewer's yeast and wheat germ. Examinations of the origin of collected pollen indicate that the honeybees only collect pollens which are rich in nitrogenous matter (amino acids), leaving lesser quality pollen behind. Around 20% of bee pollen is composed of amino acids and proteins, and it is extremely rich in Rutin. It is a rich source of minerals, including magnesium, calcium, copper, manganese and more.
**Bee Pollen and our health**

A complete food in every sense of the word, extensive tests have concluded that life can be sustained on an exclusive diet of bee pollen and water alone.

Research from the Royal Society of Naturalists stated: "The nutritional tests supervised by the station at Bures on hundreds of mice have demonstrated that pollen is a complete food, that it is possible to let several generations be born and live without the least sign of distress, while nourishing them exclusively on bee pollen".

The list of potential benefits to health is simply vast. Here are some of the more common associated health benefits of bee pollen:

* energy
* weight loss / appetite suppressant
* stamina
* allergies
* antibiotic
* sexual function / impotence / infertility
* asthma
* chronic fatigue
* immune system booster
* prostate diseases
* menopause
  ≈ anti aging / longevity

Bee pollen as a dietary supplement may help us in many ways. Bee pollen is taken by many people to supplement the nutrients that are deficient in our diet, nutrients which are important not just for raw energy, but also for their ability to remove harmful ‘free-radicals’ or toxins from our body.

Clinical tests have shown bee pollen to be effective in combating the effects of hay fever and other airborne allergens. In a clinical test, bee pollen was given to individuals suffering from hay fever allergies. It was given over a period and was found to desensitize people from the effects of hay fever and other airborne allergens.
Bee pollen may help with many conditions including obesity. Its ability to act as an appetite suppressant and also a general craving suppressant, makes it popular amongst people looking to loose weight or even quit smoking.

Many athletes around the world attribute their successes in large to using bee pollen as an effective energy/stamina supplement. Muhammad Ali contributes his success to bee pollen and many Olympic athletes have used pollen during training. Steve Reddick - GOLD MEDALIST on the US Relay Team at the Montreal Games 1976 says: "It gives me a lot more energy too. I used to take honey but this Bee Pollen is far better. I take 3 pills a day"

Taking bee pollen may also help reduce the effects of stress and aid digestive system function. Dr. Carlson Wade in his book 'About Pollen' states:

"Bee pollen contains a gonadotrophic hormone similar to the pituitary hormone, gonadotrophin, which functions as a sex gland stimulant. The healing, rejuvenating and disease-fighting effects of this total nutrient are hard to believe, yet are fully documented. Aging, digestive upsets, prostate diseases, sore throats, acne, fatigue, sexual problems, allergies and a host of other problems have been successfully treated by the use of bee pollen".

Bee Pollen has been taken for centuries to assist in body system regulation and to provide a tonic for reproductive systems, male and female. Providing energy and stamina, it is also considered to assist in alleviating infertility and impotence, particularly when combined with honey and royal jelly.

**A note on bee pollen and prostate disorders:**
Clinical research suggests that bee pollen can reduce prostrate enlargement and painful symptoms associated with prostate disease. Dallas Clouatre, Ph.D. is a researcher and author of ‘Flower Pollen for Prostate Health’. In his book he reports that controlled bee pollen consumption among men with prostate problems results in significant improvement and alleviation of symptoms. Specifically, "less nighttime urination, improved bladder emptying, and reduced prostate discomfort".

Dr Clouatre also says that bee pollen helps relax smooth muscle, making it easier to empty the bladder. It may also act as an anti-inflammatory and decrease the
swelling of the prostate, resulting in a better urine flow and reduced discomfort. Dr. Clouatre comments that 80% of those people using pollen find marked relief and that pollen may also forestall future problems. "Patients often report that they are no longer getting up at all during the night and that they no longer have difficulty or discomfort upon urination." Source includes BW HealthWire, Nampa, Idaho June 9, 2000.

A Swedish study has also concluded that bee pollen can significantly affect inflammation and swelling of the prostate gland. Dn Gosta Leander conducted a double-blind controlled study of 93 patients in which a placebo was given to 43 men, and bee pollen to the remaining 50. Forty-six men out of the fifty who took the bee pollen were successfully treated, while the control group did not experience any significant improvement.

Many experts believe that the natural hormones contained in bee pollen, along with a wide range of nutrients, magnesium, essential fatty acids and zinc, help to support the male urinary and reproductive systems. It is generally considered that men over the age of thirty could benefit from bee pollen’s ability to help prevent the onset of prostate disorders.

**Bee Pollen and weight control**

Our body processes all nutrients and deals with them according to the type and quantity consumed. Consumption rates for calorie-bearing nutrients, coupled with the rate of our metabolism, will generally determine whether we build fat, maintain our body weight or loose weight.

However, we can help our body become more efficient in processing certain nutrient types by supplementing our food intake with Bee pollen which contains active ingredients with a proven ability to assist in weight loss and weight regulation.

There are many documented benefits to using bee pollen and it has long been associated with weight loss and weight regulation, but what evidence do we have via clinical research into these claims? Many studies have been conducted over the years into the benefits of bee pollen and with few exceptions the results have shown that there are consistent improvements to metabolism (the rate at which your body burns fat); the
dissolving and flushing of fat cells from your body, and also a consistent indication that it can help reduce cravings for food and other substances.

It's important to remember that bee pollen is actually a 'food' and not technically a 'vitamin supplement'. The nutrients in Bee Pollen are very concentrated meaning that even small amounts may provide effective and valuable levels of nutritional sustenance - dietary antioxidants, bioflavonoids and polyphenols in particular, along with lecithin. These essential components of nutrition are missing from modern diets since we generally opt not to eat our recommended daily amounts of fruits and vegetables, and because the foods we do eat are nutritionally deficient.

**Weight Loss Specifics**
Foods are digested and enter the bloodstream at a specific rate, termed the Glycemic Index. The substance with the highest glycemic index rating is sugar (100). Food substances with higher GI's cause a high rise in the creation of insulin, which is essentially a delivery system hormone for the storage of fats. Ingesting foods with a lower GI (proteins, fibers and certain fats with a positive nutritional benefit) help balance and control the release of insulin and therefore minimize the creation and retention of unwanted body fat.

Bee pollen is an excellent source of protein and fatty acids which have a low GI rating and do not elevate levels of insulin - it is also high in lecithin which helps break down fats.

**But doesn't that suggests one may need to replace significant levels of food intake with bee pollen, for it to be effective?**
Actually no, not necessarily. The issue comes about through our bodies demand for nutrients. Most of the processed foods that are featured predominantly in Western diets are nutrient deficient yet high in calories. Think about white breads, pasta, rice, and almost any food that comes to you in a packet. Our body requires nutrients to function healthily and it can't get the nutrients it needs from these empty calories, so it encourages you to continue eating beyond the point where you've consumed sufficient foods to meet your energy demands. So the excess food is simply converted to body fat and stored on your hips and thighs!
But by simply adding a nutritionally dense *superfood* to your diet, you may find that your body reaches its target nutrient intake with a far lower rate of calorie
consumption - put another way, it requires you to eat less.

Pollen contains over 5,000 enzymes and co-enzymes, considerably more than is present in any other food. These enzymes are necessary in the body for digestive function and immune function. The enzymes present in bee pollen are considered important in creating a chemical balance in the metabolism. This ‘balancing’ or ‘regulating’ function may be the key factor in bee pollen’s ability to assist in weight regulation.

When taking bee pollen as a dietary supplement, it is best consumed an hour or so before meals. Where body weight is normal, and there is no desire to loose weight, pollen may be consumed with, or directly following a meal.

Some important studies have been conducted into the role of bee pollen in helping to control body weight.

S. Blauer (Hippocrates Health Institute) "Bee pollen minimizes, reduces or eliminates the normal person's cravings for heavy concentrated protein... [bee pollen] aids in the digestion of other food"

When investigating bee pollen’s role as a natural appetite suppressant, Dr. J. Chen and Dr. L. Chu (Aerospace Medicine & Life Sciences), "... found the average daily food consumption in the Bee Pollen fed group was generally 15-20% less."

Ingesting bee pollen in supplement form can be a great way of assisting the body in processing and 'burning' carbohydrates and converting calories into energy.

**How is Bee Pollen processed for human consumption?**
The beehive is a remarkably efficient workplace constructed and operated in a way that has remained unchanged for millions of years. The beehive contains a brood chamber where the Queen bee lays her eggs. The brood chamber is the larger of several chambers within the beehive, the smaller chambers are where the worker bees store the honey and pollen. The pollen is collected in "pollen traps". In commercial hives, these traps are created by the beekeeper and consist of mesh wire with small apertures which brush the legs of the bee as it enters the hive. The pollen granules then fall into a
tray, which is removed by the beekeeper.

In most cases, little or no ‘processing’ is performed on the pollen after it is removed from the hive in its granulated state. It is purged and sifted of any foreign particles, and then packaged and generally frozen.

In its raw state it should be maintained frozen until it is ready for consumption, at which point the thawed bee pollen should be kept refrigerated until consumed. A more convenient way of consuming pollen is in capsule form. Capsulated pollen if processed correctly, contains all of the nutritional content of the raw pollen but has a much longer shelf-life, typically 3 or 4 years.

Bee pollen has no regulatory status, it is considered a food and not a herb or vitamin supplement. There are no guidelines for effective daily dosages, but many people take upwards of 1000 mg per day.

**What is the difference between ‘domestic’ bee pollen and ‘imported’ bee pollen?**
This is an important question. Imported bee pollens, predominantly from China, are often purchased from unregulated facilities and may contain contaminants. In certain parts of China, beekeepers use lead-based paints to paint their beehives, and these ‘heavy metal’ contaminants may enter the pollen or other substances from the hive. In most cases, reputable manufacturers will use domestic bee pollen as it is in abundant supply.

**Summary**
Bee pollen is a nutritive power-house providing a vast array of potential benefits to our health. Termed a ‘super-food’ and labeled by ancient cultures as ‘The Food of the Gods’, bee pollen contains all of the essential nutrients to sustain life. Valued by many for its energizing and stamina building function, it offers so much more than a quick energy-boosting tonic.

Containing a high concentration of amino acids, the immune building properties of bee pollen are rivaled only by those of Royal Jelly and other products from the beehive. When the beehive products are combined, a special ‘synergy’ is formed which is far greater than the sum of the individual parts.
CHAPTER 3 - BEE PROPOLIS

Propolis is a substance used/created by honeybees for two important functions around the beehive. Imagine a 'community' with 35000 members, each packed into a tiny space, crawling over their neighbor and sharing the same food supply. It's little wonder that the hive environment needs to be highly sanitized to prevent the development and spread of bacteria. That is the first and most important role of propolis – sanitation.

Propolis is collected from tree bark and sap flows which have inherent anti-viral and anti bacterial properties. These properties are retained as the plant matter is collected and combined with bee secretions to form propolis; it is then used around the hive as a natural sanitizer. An example of its usefulness in this regard is in the rather unpleasant role of mummifying the carcasses of stray rodents and insects that wander into the hive and can't escape. The creatures die and their carcass presents a major viral threat to the entire colony. So the bees rather ingeniously coat the entire carcass in bee propolis and essentially seal it against bacterial interaction with the hive environment.

Its second role is of less interest to us in terms of its potential benefits as a dietary supplement or topical agent, it is used in the hive to repair cracks in the structure. Many people imagine the beehive to be a completely sealed structure, where in fact it is not. It is essential for the inhabitants to have open airflow through the hive. Beeswax is used to fill larger holes and cracks and the propolis is applied around the smaller structural holes leaving sufficient opportunity for airflow to exist.

So we have a substance with a clear and important role within the confines of the beehive, but what interest can it be to us in the medical or dietary supplement field?

One area of medicine which causes a great deal of concern is the over-prescribing of antibiotics. It seems anyone with a cold, a toothache or a belly ache is prescribed antibiotic remedies. The issue is that over time, your body starts to build a resistance to the actual medications you are taking. Each time you use them they become a little less effective as your body adjusts to their presence. This is critical, since when you really do need an antibiotic to combat a more serious infection, it may not be effective enough to do the job. However, the body is able to differentiate between artificial and natural, when it sees these substances enter our system. A natural antibiotic can work in harmony with our body systems.
whereas a chemical agent designed to do the same thing can cause a rejection, or a steady building up of immunity to its very presence. Propolis is a natural antibiotic agent. It is possible that propolis may be used to replace chemical agents in many situations, or be used alongside them to provide a more natural and effective barrier to bacterial infection.

We can see the affects of Propolis at work more readily when it is used topically. Many people use it to treat cuts and abrasions and even canker sores and mouth ulcers. In this 'open' environment we can easily view and monitor its effectiveness. However, when taken internally, we need to conduct more rigorous clinical studies to establish the benefits and also to monitor possible negative side effects.

Oddly enough there are no FDA commissioned studies into bee propolis from which we can draw meaningful data. Generally, the cost of conducting such research is overly prohibitive for individual supplement companies to engage in. But there are a variety of medical scientists who have been commissioned independently to conduct studies into bee products like royal jelly and propolis, the majority of these studies have been undertaken in Europe, outside of the realms of the FDA.

Danish scientist, K. Lung Aagaard and French physician Remy Chauvin have spearheaded research into propolis with a view to establishing its bioavailability and determining processes required to make the substance useful and available as a medicinal aid. Extracting propolis resin and dehydrating the substance is quite an involved process and usually requires a soluble treatment with food grade alcohol or distilled water. Aagaard and Chauvin conducted a detailed study to devise methods of extracting propolis whilst retaining its nutritional integrity.

Clinical studies around eastern Europe and in Russia, where propolis is utilized extensively in medical facilities, have revealed the following information:

- *Increase in general physical performance; also sexual and, above all intellectual* *(Professor Scheller)*
- *Accelerated and intensified regeneration of injured tissue on traumatically or infectiously altered tissues* *(Professor Scheller)*
- *No unequivocally negative changes in the white blood picture or in the liver or*
kidney values. Among other things, this substantiates the absence of side effects of propolis as well as its non-toxicity. (Professor Scheller) 
- Studied the effect on the immune system and documented further positive effects of propolis on circulation, metabolism, physical well-being and infectious diseases. (Professor Scheller) 
- propolis has proven effective in helping to build immunity and resistance to such conditions as infections, ulcers, colds, stress, periodontal problems, pharyngitis and aging, itself. (Aagaard and Chauvin) 

In his research paper, Professor S. Scheller talks about the ability of bee propolis to stimulate the immune system and says "it is possible to control the aging process and enjoy a long and healthy life. Propolis holds the key to this form of inner rejuvenation."

This paper was prepared involving the first double-blind placebo-controlled study of the substance, where Professor Scheller lead a team of four other doctors at the Institute for Microbiology at the Medical Academy in Sabrze-Rokitnica, Poland. The study concluded that propolis did indeed have the power to prolong the prime of life, and that propolis is able to directly stimulate the immune system to release substances that protect against cellular deterioration.

Regrettably, we tend to be relatively slow on the uptake in the USA when it comes to embracing the powerful substances provided to us by our own Mother Nature. The majority of propolis is still processed in the USA for export into Europe and Asia. When one looks for reasons, one does not need to look too far. The system of 'lobbying' within US Government allows extremely powerful companies to influence the decision making processes of the US Governmental departments, including the FDA. There is so much money involved in the pharmaceutical industry and so much pressure to prevent the embracing of natural substances into traditional medicine.

One recent evaluation of the workings of the FDA released data suggesting that the average cost of having a substance approved for use as a 'medication' is somewhere around $25M. So to take a substance like propolis through the rigors of FDA approval would be far beyond the financial reach of any existing supplement company.

This really presents the public with something of a dilemma. In a sense, it creates an environment exactly the opposite to the one which the FDA tries to facilitate. It
makes personal trial and experimentation the only viable option for a person to try out a natural remedy for themselves. But of course there are ways to do this in a controlled way and to minimize the risk.

There are resources online where you can research public experiences with certain products, and make conclusions based on your own final judgement. But it is far from ideal. At the end of the day we're left with common sense and good judgment as the only tools in our arsenal when considering the use of dietary supplements. Using resources as highlighted above will help mitigate the risk, and perhaps get you on the right path to making good choices in how you manage your health, naturally.

**What is the chemical composition of propolis?**

Propolis contains approximately 50-70% resins, 30% wax, 10% etheric oils and 5% pollen.

Propolis is especially rich in amino acids, important for immune system function. It has a high vitamin content and is extremely rich in bioflavonoids (Vitamin P).

Bioflavonoids are reported to have numerous immune building properties and health benefits. Bioflavonoids are the natural pigments in fruits and vegetables and are found in abundance in oranges. Propolis contains almost 500 times more bioflavonoids than is found in oranges! According to research undertaken at the Second Leningrad Scientific Conference on the Application of Apiculture (bee culture) in Medicine, Bee Propolis is found to be rich in: Vitamin A (carotene), Vitamin B1, B2, B3, biotin. It contains an array of bioflavonoids, albumin, calcium, magnesium, potassium and phosphorus. Except for vitamin K, Propolis contains all known vitamins and has fourteen of the 15 minerals that the human body requires for normal function. (it does not contain sulfur).

Like Royal Jelly and Bee Pollen, Propolis also contains a number of unidentified compounds which work together synergistically to create a balanced, nutritive substance.

**Propolis and our health**

Propolis is commonly applied externally in treating cuts and skin irritations, where its natural antibiotic properties are shown to be effective.
"The field of influence of Propolis is extremely broad. It includes cancer, infection of the urinary tract, swelling of the throat, gout, open wounds, sinus congestion, colds, influenza, bronchitis, gastritis, diseases of the ears, periodontal disease, intestinal infections, ulcers, eczema eruptions, pneumonia, arthritis, lung disease, stomach virus, headaches, Parkinson’s disease, bile infections, sclerosis, circulation deficiencies, warts, conjunctivitis and hoarseness." Dr. K. Lund Aagaard

Dr. John Diamond, President of the International Academy of Preventative Medicine says: "Our life energy is the source of our physical and mental well-being, of glowing health, of the joy of living..." "I have never seen a patient with chronic degenerative illness who did not have an under-active thymus gland. I believe it is the thymus weakness or under-activity that is the original cause of the illness.....of all the natural supplements I have tested the one that seems to be the most strengthening to the thymus, and hence the life energy, is bee resin or bee propolis..."

Rich in bioflavonoids, propolis may help in healing and mending blood vessels and resisting the release of histamine. Bioflavonoids are researched as having particular benefit to high blood pressure, respiratory infections and liver conditions. More recently, research has shown that propolis may prevent or retard the growth of certain types of cancerous cells in the human body. (research at Columbia University)

Propolis is commonly associated with the following:
* natural antibiotic
* anti-inflammatory
* allergies
  \[=\] cancer
  \[=\] * sore throats
* colds / coughs /flu
* fatigue
* respiratory / sinus
* acne and skin disorders including shingles
* Skin cuts, burns, rashes, infections.
•Dental Care, cavities and mouth ulcers.

The Vitamin A content of propolis has proven of interest in more recent times. Vitamin A was the first fat-soluble vitamin to be discovered. The body acquires some of its vitamins A and C through animal fats and beta-carotene and other carotenoids abundant in many fruits and vegetables.

Vitamin A is commonly taken as a dietary health supplement to help promote healthy eyesight and to help resist infection. Vitamins boost immunity by enhancing the infection-fighting actions of the white blood cells called lymphocytes. They are also vital to the growth of bones, skin and hair and may ease the symptoms of inflammatory bowel disease and ulcers.

Frenchman, P. Lavie, has been studying and writing about the antibacterial properties of bee products and propolis. His work represents many years of trying to unfold the many claims relating to the benefits of bee products, and working to add scientific substance to the claims. One example of his studies revealed that adding hot water or hot alcohol to propolis created an antibiotic extract that remained stable for many months when refrigerated. He also found that propolis proved effective as a fungicide, being the only product from the hive to have this property. His work lead to the conclusion that propolis is created primarily to maintain a healthy and illness-free environment within the beehive. Considering the densely populated work area, the occasional outside intruder and the many forms of bacteria that must be combated, this is quite an achievement.

Oral Health and Propolis
Recent studies into the medicinal properties of propolis have shown it to be effective in dental hygiene and the reduction of cavities. To this end, we are beginning to see the emergence of propolis-based toothpaste and dental hygiene products.
Medical studies have also indicated that an ethanolic extract of propolis has a similar effect to the commercial drug novocaine. It may be these properties that give propolis its powerful ability to reduce the pain from sore throats.
Propolis and Cancer
Clinical studies on mice and rats have shown that propolis has properties which might reduce the size of cancerous tumors, and prevent the development of cancerous cells. This particular property of propolis is connected to its strong antioxidant capability and the activity of the compound CAPE.

Several new studies into the potential benefits of propolis in treating/inhibiting certain types of cancer are underway and the projected outcomes look very promising.

How is propolis processed for human consumption?
When you encounter fresh or extracted propolis for the first time, it isn’t a very attractive substance by any stretch of the imagination. It looks a little like treacle or molasses but without the purity. Various techniques are used to extract the propolis, the most common being the use of a food grade alcohol which removes the active compounds without really adding anything significant to the final solution.

To get into specifics, the most common and preferred alcohol used is a 70% ethyl alcohol which permits the resultant tincture to be used internally or externally. If the finished product is for external topical use only, then a lower grade rubbing alcohol can be used.

In the first stage of processing, the propolis is collected from the beehive and freed from contaminants such as waxes and hive wall debris. It is usually quite solid and hard at this point and in small pieces. Once the required concentration level is determined, (generally a 20-30% extract is sought), the correct amount of alcohol is added to the propolis with the resultant mixture placed into a container.

The container is sealed and agitated then stored in a warm dark place. The container is re-agitated several times each day over a period of around 2 weeks, then the liquid can be strained and the solids disposed of. The liquid, in this extracted state, is now ready for use as a topical or ingestible agent. Obviously in a commercial operation the methods are a little more sophisticated but they are usually based upon the above simple principal.
The process can but does not have to stop there. Many commercial applications for propolis require a tincture or extract with a higher concentration of active ingredient versus the alcohol. In this case the substance is evaporated (the alcohol evaporates) leaving a concentrated end product.

The longer the extraction process the more concentrated the propolis becomes.

When the end product require a powder within a capsule, there is an additional drying stage to remove all moisture from the substance before the bee caps are made.

Other applications for the liquid include making a salve by the addition of petroleum jelly, perhaps alongside other healing ingredients. It can also be used as a mouth spray for treating ulcers.

Most people prefer to buy propolis which has undergone some form of processing, but it can also be purchased in chunks. Here, only the obvious contaminants and debris are removed from the substance.

Summary
Propolis has great potential in the medical field as a natural antibiotic with non-resistance building properties.
A versatile substance, propolis can be applied externally to good effect and internally for boosting immunity and destroying harmful toxins and ‘free radicals’.

With modern research capabilities, I am certain that we will see an upsurge in propolis related products, and that before long the FDA will issue much needed guidelines into the effective daily dosages and scope of uses for propolis.

CHAPTER 4 - HONEY
Honey is a naturally sweet substance made by the honeybees by concentrating plant nectars. Bees traveling to and from the hive may cover a distance of 40,000 miles and visit over 2 million plants in their quest to find the finest plant nectars.

The most common of all bee products, honey has been used for many centuries for
its ability to heal wounds, treat infections and provide fast energy.

Many people use honey as a natural sweetener, and it is important to understand why honey is a far healthier alternative to processed sugars.

Sugars provide us with energy. All carbohydrates, whether simple sugars or complex carbohydrates, must be broken down to glucose, or blood sugar, before our bodies can absorb them and use them as energy. Honey combines glucose and fructose, when compared to white sugar, which is sucrose. The basic sugar types in honey are more easily assimilated into the bloodstream and thus yield their energy giving properties more quickly and efficiently than with processed white sugars.

The glycogen in a spoonful of honey is said to pass into the bloodstream in ten minutes to produce a ‘fast energy’ effect.

Many people refrain from using honey in the belief that it is high in calories and may cause unwanted weight gain. An average teaspoon of honey contains only around 25 calories, and as mentioned above it converts quickly and efficiently into ‘energy’, unlike white sugar.

**What is the chemical composition of honey?**

Honey is so much more than glucose and fructose, it is a nutrient rich substance with an impressive array of vitamins and minerals with trace amounts of amino acids and antioxidants.

Honey contains proteins, carbohydrates, hormones, organic acids, and anti-microbial compounds.

At the University of Florida’s Department of Food Science and Human Nutrition, Dr. Susan Percival found honey contains important nutrients, including vitamin B6, riboflavin, thiamin and pantothenic acid. Minerals found in honey include calcium, copper, iron, magnesium, manganese, phosphorus, potassium, sodium and zinc.

Dr. Percival writes: "……several different amino acids, the building blocks of protein, have been identified in honey."

The vitamin and mineral content of honey is:

- Vitamin A
· Betacarotene
· B-complex vitamins (complete)
· Vitamin C, D, E, K
· Magnesium
· Sulfur
· Phosphorus
· Iron
· Calcium
· Chlorine
· Potassium
· Iodine
· Sodium
· Copper
· Manganese

Raw honey also contains a rich supply of live enzymes and like the other bee products, some substances in honey cannot be identified. Honey may contain other medicinal compounds, depending on the type of plant from which the pollen was taken.

**Honey and our health**

Scientists in Istanbul have experimented with Honey in an effort to reveal potential benefits in the operating theatre. They have established that honey applied to wounds post surgery can prevent the formation of tumors and prevent the growth of cancerous cells.

Work is underway at the Mayo clinic into discovering potential uses for bee products in the medical field. This and other ongoing research into the medicinal uses of bee products is extremely encouraging. The only surprise is just how long it has taken the medical community in the USA to show serious interest, whereas the rest of the world it seems has known for years.

There are several factors that may account for honey's healing properties:

· Bacterial infections require water to thrive. The sugars in honey attract water, and may deprive the bacteria resulting in diminished activity from the virus.
· Bee pollen and propolis enzymes are present in even the purest of raw honey.
These possess anti-viral and antibacterial properties that work from within the honey to sterilize wounds and assist healing.

- Glucose oxidase found in honey combines with water and produces hydrogen peroxide. Hydrogen peroxide has antiseptic properties.

Dr. Paavo O. Airola, has written the book ‘Health Secrets from Europe’. In it he writes about the natural therapeutic effects of honey and states:

"Honey is a perfect food. It contains large amounts of vitamins, minerals, being particularly rich in vitamins B and C. It contains almost all vitamins of the B-complex, which are needed in the system for the digestion and metabolism of sugar. Honey is also rich in minerals such as calcium, phosphorus, magnesium, potassium, silicon, etc......some kinds may contain as much as 300 milligrams of vitamin C per 100 grams of honey."

Royden Brown in his book ‘Bee Hive Product Bible’, provides invaluable insight into the properties of bee products. He writes about the use of Honey to treat respiratory ailments, and relates to exhaustive research conducted in Bulgaria:

"We found Honey has bactericidal, anti-allergenic, anti-inflammatory and expectorant properties that insure the body an immunobiological defense and give it the capacity to regenerate its attacked cells".

Dr. Peter Molan, MBE, is an Associate Professor in Biochemistry at the University of Waikato, in New Zealand. Dr. Molan has over 17 years of research into the medicinal and healing properties of honey. Dr. Molan has conducted extensive testing into the regional variations of honey, and how honey from different regions exhibit different medicinal properties.

The results from his tests have shown scientifically that all honey has varying degrees of healing properties, mainly due to the antibacterial agent hydrogen peroxide, which is found in all honey regardless of region.

May R. Berenbaum, is an entomologist at the University of Illinois. Recent studies
by Berenbaum show honey to possess surprising quantities of antioxidants. It was apparent that honey from different regions exhibited varying antioxidant properties, and that generally, honey which is darker in color was found to be more potent as an antioxidant. Antioxidants are important in their ability to fight toxicity in the bloodstream and may help fight off harmful infections.

How is honey processed for human consumption?
Honey is often treated with a pasteurizing process to minimize crystallization once packaged. This process may involve exposure to high temperatures that can destroy some of the valuable natural enzymes in honey.

Raw and unprocessed honey is generally preferred over honey which has been heavily processed. When honey crystallizes, it is generally a simple case of gently warming the product until it is re-liquefied. Temperatures of 110 degrees or less should be adequate to re-liquefy the product and at this temperature the live enzymes should remain unaffected.

This also has significance concerning the end use of honey, and there are conflicting opinions in this regard. Clearly, certain live enzymes are destroyed when the product is heated excessively, and therefore its nutritive and therapeutic properties must be diminished. So using honey in hot drinks, as so many people do, may not be yielding the full range of benefits from the product.

However, recent studies into how heating certain vegetable products may effect their nutrient yield is uncovering some interesting results that seem to go against popular opinion. In one study, carrots were analyzed for their beta-carotene, or Carotenoid content. Carotenoids are phytonutrients, the nutritional elements that occur naturally in fruits and vegetables, giving them their distinctive yellow, orange or red colors. They are commonly believed to be powerful antioxidants that rid the body of harmful free-radicals. For many years nutritionists have told us that eating raw vegetables is the only way to benefit significantly from their nutritional properties, and that heating vegetables destroys their nutrient content. However, in a recent series of tests, carrots were heated through various stages to simulate a typical cooking process. At different temperatures the beta-carotene levels of the carrots was analyzed, and it was found that the levels actually increased through the heating process. At a certain stage the levels began to diminish, but never to a level below the raw, uncooked food.
Similar research has been conducted into the effect on honey. It was found that the antioxidant properties of honey may increase through heating: "When honey is cooked, it appears to acquire additional, functionally important antioxidants", according to related studies at Clemson University in South Carolina.

So, to heat or not to heat? The simple answer is to use your honey straight from the jar by teaspoon, and use it in hot drinks also. That way you have the best of both worlds, unheated with its live enzymes intact, and its increased antioxidant levels when heated.

**Summary**

Honey is much more than just a sweetener, it has real nutritional properties that provide us with potent antioxidants and a host of other nutritional benefits. By embracing honey into your everyday diet, you may help your body help itself – fighting and removing toxins, viral infections and providing useful energy that is not derived from harmful sucrose.

Honey acts as the perfect accompaniment to royal jelly - adding a touch of sweetness and flavor, and naturally preserving the liquid royal jelly, avoiding the need for refrigeration or preservatives.

Honey, mankind’s oldest sweetener, is being rediscovered as a natural source of energy with the added benefit of having potent medicinal and therapeutic properties.

**CONCLUSION**

There is clear medical research indicating that Bee Products are very special substances when it comes to their nutritional properties and your health. Bees are perhaps the oldest living species on our planet, and it is no accident that they have remained unchanged by evolution and natural selection for many millions of years.

Mother Nature created a perfect environment when creating the honeybee, and at the same time equipped the honeybee with all of the tools required for longevity, come what may. Fortunately for mankind, the industrious little insect with the gentle sting is more
than capable of creating its nutritious produce in sufficient quantities for man to enjoy. Perhaps the sting was designed to draw attention to the otherwise innocuous little insect, as a way of prodding and awakening us to the power of its wares.

Take the time to seek out and enjoy quality bee products, embrace them into your every day diet like you would with any conventional foods, and enjoy the energizing, protecting and invigorating power of the beehive.

Supplemental Information

A Study of Beehive Products Post-Processing Nutritional Quality
The focus of this study is to examine the affects of stabilizing the raw ingredients, with a particular emphasis on royal jelly and propolis. Royal jelly is widely marketed as having 'live nutrients' and having 'nutrients intact'. But does it?

Firstly, one must understand that bee products are classified by the FDA as 'Food Substances' and not herbs or vitamins as many people expect. Handling of foods is very closely regulated, with a great deal of attention placed on potential for contamination caused by bacterial or microbial activity. To reduce the risk to humans, a basic requirement of food handling is that products with a high water content must be pasteurized. This applies to many substances found on our grocery store shelves, including -

Canned food
Dairy Products
Juices
Low Alcoholic Beverages
Syrups
Vinegar
Water
Wines

Yes, even water is widely pasteurized. Pasteurization is a process of heating a substance with high water content to a specific temperature for a specific period of time, and then cooling it rapidly. Pasteurization was conceived and perfected by
Louis Pasteur and Claude Bernard in April 1862, and initially used as a way of preventing wine and beer from souring. The process is technically a chemical process designed to slow down microbial growth in food and to kill off harmful organisms such as viruses, bacteria, molds and yeasts. Most people are familiar with the process as it applies to raw milk, but generally balk at the idea of juices and other dairy products being pasteurized.

There are two main types of process used in the food industry - High Temperature/Short Time (HTST) and "Extended Shelf Life (ESL)" treatment. A third option of Ultra-high temperature (UHT or ultra-heat treated) is also used for milk treatment. The methods of Pasteurization are standardized and controlled by Federal food safety agencies, these agencies lay down standards for different types of products and the differing processes involved. In the supplement industry, it is important to understand the supply chain procedure which applies to vitamin supplements, their raw ingredients and the processes involved along the line.

Most royal jelly, some propolis, some bee pollen and some honey, is 'lyophilized' as a means of removing the water for post-processing. Why do we want to remove the water? - well, if we don't, we have to treat it with a preservative which minimize the microbial growth and mitigates the risk of toxic contamination. Most nutritional supplement users reject the use of preservatives and demand a product more natural and chemical free.

Plus, it's generally easier to package a powder than it is to package a liquid, particularly into small one-dose capsules. So what if we really want to 'market' the product as a liquid, as many do in the case of royal jelly?

There are some options -
1 - Add a strong preservative
2 - Use powdered royal jelly and re-constitute it with ionized water
3 - Pasteurize it

Actually, in most cases, the process of pasteurization is applied somewhere along the supply chain to all of the above.

What if we absolutely demand a product that has not been pasteurized?
You may think that buying lyophilized (freeze-dried) powder is a sure way to obtain non-heat treated royal jelly, but it really isn't, and here's why - Only a
handful (not even) of manufacturers have in-house capability for lyophilization here in the USA, and those that do generally purchase their raw ingredients from overseas. In these cases, the royal jelly may be pasteurized at source (perhaps in China), shipped into the USA and then processed into powder for capsulation. So as a USA based supplier, you actually have few choices to ensure the nutritional integrity of your product - Buy bulk lyophilized powder from suppliers in Asia who can show via internal standards and procedures that the raw materials have been processed into powder within a short time period of leaving the hive (usually a couple of hours at the most). or Source royal jelly / propolis here in the USA and oversee its post-processing. It is clearly a complex process, further complicated by the fact that many suppliers make very erroneous claims about the origin of their products. I know several who market themselves as "bee farmers", the inference being that they produce their own raw materials, when the truth is something very different - they use contract manufacturers who simply buy their powders in bulk from whatever source is the cheapest (China).

**Royal Jelly benefit, side effects, understanding how to buy royal jelly – bee pollen.**

Royal jelly is secreted from the salivary glands of worker bees to provide the food source for all young larvae. As the larvae develop and the Queen bee forms, royal jelly continues as her sole source of food. Looking at what’s in it in more detail, we see a mix of vitamins, minerals, proteins and fatty acids. Also of note is the presence of acid glycosides and sterols, such as stigmasterol.

Containing almost 70% water, we must look to its solid mass to search for any substances of nutritional interest, where we see a high percentage of proteins with many of the vitamins, minerals and amino acids that are the focus of a plethora of popular health supplements. Refer also to our sections on bee pollen and propolis. Nested inside royal jelly are all of the B vitamins along with vitamins A, C, D, E and K. There are 18 from the 22 amino acids found in the human body along with minerals and other important substances including nucleic acids and adenosine monophosphate (AMP) which is also found in Royal Jelly.

**Health benefit of royal jelly – what can it do for me?** It is important to understand that very few studies have been undertaken to examine the health benefit of royal jelly on humans, or put more aptly, the ‘potential’ health benefits. Always looking
for safe and natural ways in which to augment our health, much attention has
turned to Royal Jelly’s properties and various clinical studies on animals (rats and
mice) have been undertaken. In animals, royal jelly has demonstrated the capacity
to extend life and has shown at a DNA level a positive benefit on cells and cell
regeneration, connected with anti aging and longevity.

**Anti-fatigue effect of fresh royal jelly (on mice). Documented within the**
**Journal of Nutritional Science.**

“We investigated the anti-fatigue effect of royal jelly, which had been stored at -20
degrees C from immediately after collection, in male Std ddY mice. Mice were
separated into three groups with equal swimming capacity, and were administered
royal jelly, royal jelly stored at 40 degrees C for 7 d (40-7d royal jelly), or the
control solution including casein, cornstarch, and soybean oil before swimming.
All mice were forced to swim for 15 min once; then the maximum swimming time
to fatigue was measured after a rest period. The swimming endurance of the royal
jelly group significantly increased compared with those of the other groups. The
mice in the royal jelly group showed significantly decreased accumulation of
serum lactate and serum ammonia and decreased depletion of muscle glycogen
after swimming compared with the other groups, whereas there was no significant
difference between the 40-7d RJ group and the control group in these parameters
after swimming. A quantitative analysis of constituents in royal jelly showed that 5
7-kDa protein, which we previously identified as a possible freshness marker of
royal jelly, was specifically degraded in royal jelly stored at 40 degrees C for 7 d,
whereas the contents of various vitamins, 10-hydroxy-2-decenoic acid, and other
fatty acids in RJ were unchanged. These findings suggest that royal jelly can
ameliorate the physical fatigue after exercise, and this anti-fatigue effect of royal
jelly in mice seems to be associated with the freshness of RJ, possibly with the
content of 5 7-kDa protein.”

Many other similar studies have been undertaken in efforts to hone in on the
benefits of royal jelly with a view to understanding them more fully and exploring
ways in which they might be used to benefit human health. It should also be stated
that bee pollen, a substance also found in the beehive, has a long association with
increased energy and stamina in humans. It seems that each substance found in the
hive plays a specific role as a natural health product and people buy bee products
for their anti aging properties (royal Jelly) energy, stamina and weight loss
properties (bee pollen) and anti viral / anti fungal properties (propolis). Honey and
beeswax are also commonly used as nutritional aids with assumed health benefits.
But focusing on actual scientific data, there are few ‘facts’ that can be presented. Certainly the above study suggests potential benefits on energy levels and other studies have reported benefits on blood pressure and levels of cholesterol. But most of the other ‘claims’ as to the human beneficial side effects relate to studies on other products which share some vitamin or mineral similarity to royal jelly and/or bee pollen. For example, it is accepted that amino acids are a vital component of health and well being therefore many supplements make use of a high amino acid content, such as body building and training supplements. So in seeing that bee products also contain these amino acids, it becomes a natural step to assume the benefits widely associated with amino acid supplementation will also transpose to bee products.

**Royal Jelly side effects**
When we talk about side effects there’s obviously a negative connotation involved. In the case of royal jelly, certain negative side effects have been observed, including asthma cases. If we were to single out any ingested substance and ‘ban’ it based on known issues amongst a small number of users then clearly there wouldn’t be much available to choose from. So it’s important to keep cases of negative reaction and negative side effects of royal jelly in perspective by considering how many people have ingested a certain substance and how many have reacted in a negative way. What that parameter considered, it is generally thought that royal jelly and other beehive products are safe for human consumption. As always, certain individuals may be more susceptible to negative reaction and therefore should not take supplementation without the requisite level of medical intervention and supervision.

**So what does all of that mean, where does it leave me, and should I bother to try these bee products for myself?**
Certainly there are many natural health products on the market vying for your time, attention and money. So performing due diligence, undertaking research and making an informed decision is a vital part of your decision making process (or should be). That said, it’s easy to become misled by erroneous information and resources geared towards parting you with your hard earned money. In the case of bee products, and in particular royal jelly, there’s a hot debate that you may encounter when doing your research pertaining to the benefits of fresh royal jelly versus freeze dried. Certain companies try to introduce a competitive angle by making claims about having a superior product when it is sold in fresh
The Many Potential Benefits of Bee Pollen
There are so many potential benefits to using Bee Pollen supplements, beyond increased energy and benefits to the immune system, that it is no surprise to find them in such wide use. As interest in more natural foods and medicines has risen, a closer look has often been taken on substances which helped our ancestors in past times. One of these substances is Bee Pollen, writings from the time of the ancient Romans have demonstrated that they were well aware of its properties, hence it was used as a nutritional supplement many centuries ago in ancient naturopathic medical practices.
Bee Pollen is often referred to as being the perfect food or a complete food. Bee Pollen is so packed with nutrition that if you were able to eat nothing else, you would not only survive, but you might even thrive. To begin with, Bee Pollen is approximately 40% protein. This is a higher level of protein than is found in many meats and fish.
It is no secret that we live in a very stressful world right now. The demands of work and family can often adversely affect our physical and mental health. Rather than rely upon such potentially dangerous chemicals found in prescription medicines, you may find that Bee Pollen can help to manage your stress more
naturally and gently. Bee Pollen has a full range of vitamins, amino acids, and fatty acids which might work together to help you to control your moods, stress and energy levels more easily. Regular supplementation of Bee Pollen in your diet may help you to regulate your mind and body more effectively.

Your immune system is your defense against disease. Many things can compromise your immune system: stress, insomnia, and dietary deficiencies among other things. When your immune system is not functioning as it should, you are more susceptible to becoming ill. Perhaps one of the best ways to naturally boost your immune system is by using Bee Pollen supplements. [Bee Pollen Benefits / Nutrients] Our bodies exist in a rather delicate balance between the available nutrients and our daily bodily demands. It is often difficult or impossible to provide your immune system with the fuel it needs to operate at maximum efficiency from the heavily processed foods which we consume. Fortunately, Bee Pollen is such a complete food in the nutritional sense that it might provide you with many of the nutrients you are otherwise missing. Besides a very healthy dose of protein, Bee Pollen also contains selenium, a range of vitamins (A, B, C, D, and E), calcium, and beta carotene among many other elements. You might well be missing out on some, if not many of these important nutritional elements if you depend on the typical diet of many American's. Making Bee Pollen a regular part of your supplement program may help fill in the nutritional gaps in your regular diet.

The benefits of Bee Pollen have been said to be especially beneficial to those competing in sport and athletic activity, yet everyone can be helped by an energy/stamina boost. It is easy for the nutrients of your body to be used up not only by ordinary daily activities, but stress and anxiety can burn up even more, leaving you feeling drained. Fortunately, Bee Pollen can give you that extra bit of energy to get you through the work day and still have enough left for a workout in the evening. Rather than using stimulants such as coffee or other caffeine drenched beverages, try taking some Bee Pollen in their place. Bee Pollen may also help your heart work more efficiently, which means that your body may be able to respond to demands on its energy reserves.

If you are experiencing weight problems, Bee Pollen supplements may help you regulate your food cravings and even help you to lose weight. Besides all the nutritional benefits of Bee Pollen, it has also been found to help speed up your metabolism in a natural way. When your body is working at a slightly higher level than normal, you will burn calories more easily. When using Bee Pollen in a weight loss program it is a good idea to combine it with exercise. This will allow
your body to become more toned, and the exercise will assist in burning some of those excess calories. As stated already, Bee Pollen may even help to control your desire to eat too much and keep those detrimental cravings in line. The lecithin in these supplements may also assist in breaking down some of the stored fat cells in the body.

If you feel that you need more energy to get through the day, have a problem with your weight, need help dealing with stress, or want to get your immune system working at the highest capacity, it may be time to add Bee Pollen supplements to your diet. Bee Pollen is nature’s complete food and might prove to be a benefit to your health in many ways. Taking the substance for a number of weeks may really make a difference in how your feel and in your ability to get through the day. Take some caution when selecting your supplier however, since not all pollen is created equal. Many USA based companies import their raw ingredients from Asia and other parts of the world, and it may already have been largely depleted of nutrients before it arrives here in the USA. It may also be highly contaminated. Beekeepers in other parts of the world use very invasive chemicals to control the hive population and many even use lead-based paints on the hives themselves. These chemicals can contaminate to ingredients and that can in turn end up inside the body of the person who consumes the bee pollen. So always seek out a manufacturer who sources domestic USA pollens which come from State Licensed beekeepers.