

KALONJI - HISTORY, NUTRITION, BENEFITS & USES



Black Seeds

"A cure for every disease except death." (Sahih Bukhari)

Black seed, Black cumin, Nigella sativa, Kalonji, Schwarzcummel, sinouj, Nutmeg flower, Black caraway, Habba sowda, fennel flower...

BLACK SEED (NIGELLA SATIVA) IS CONSIDERED TO BE ONE OF THE GREATEST HEALING HERBS OF ALL TIMES. THIS HERB HAS BEEN USED FOR MILLENNIUMS TO STRENGTHEN THE IMMUNE SYSTEM, CLEANSE THE BODY, PURIFY THE BLOOD, PROTECT AGAINST IRRITANTS AND SUPPORT HEALTHY LONGEVITY. LONG FORGOTTEN THIS HERB IS NOW ENJOYING A POSITIVE AND WELCOMED COME-BACK.

In Islam, it is regarded as one of the greatest forms of healing medicine available. Muhammad (S.A.W.) once stated that the black seed can heal every disease-except death-as recounted in the following hadith:

[Sahih Muslim: Book 26 Kitab As-Salam, Number 5489]

It is also included in the list of natural drugs of 'Tibb-e-Nabavi', or "Medicine of the Prophet (Muhammad)(S.A.W.)", according to the tradition "hold onto the use of the black seeds for in it is healing for all diseases except death" (Sahih Bukhari vol. 7 book 71 # 592).

BOTH KALONJI OIL AND SEED ARE EQUALLY GOOD BUT KALONJI OIL IS PREFERRED OVER SEEDS AS IT IS 35 TO 50% MORE POTENT AND CONVENIENT TO USE

KALONJI OIL IS MADE FROM TRULY A REMARKABLE HERB CALLED NIGELLA SATIVA, POPULARLY KNOWN AS BLACK CUMIN OR BLACK SEED.

KALONJI IS KNOWN AROUND THE WORLD BY MANY NAMES BECAUSE OF ITS ANCIENT POPULAR HISTORY AND MEDICINAL VALUE VIZ: BLACK CARAWAY, ROMAN CORIANDER, CARVI (FRENCH), SCHWARZKUMMEL (GERMAN), KALONJI (HINDI/URDU), KEZAH(HEBREW) CHERNUSHKA (RUSSIAN), COREK-OTU(TURKISH), HABBAT-ALBARAKAH OR HABBATUS-SAUDA (ARABIC) SIYAH DANEH (PERSIAN) ETC.

Kalonji is sometimes misleadingly confused with similar looking onion seed and black sesame, both of which are totally unrelated and deffinately are not the same

KALONJI SEEDS HAVE BEEN FOUND IN SEVERAL SITES FROM ANCIENT EGYPT, INCLUDING TUTANKHAMUN'S TOMB. ALTHOUGH ITS EXACT ROLE IN EGYPTIAN CULTURE IS UNKNOWN, IT IS KNOWN THAT ITEMS ENTOMBED WITH A PHARAOH WERE CAREFULLY SELECTED TO ASSIST HIM IN THE AFTER LIFE.

The earliest written reference to *N. sativa* is thought to be in the book of Isaiah in the Old Testament where the reaping of nigella and wheat is contrasted (Isaiah 28: 25, 27). Easton's Bible dictionary states that the Hebrew word *ketsah* refers to without doubt to *N. sativa* (although not all translations are in agreement)

Nutritional Components of Kalonji

Kalonji contains over 100 valuable nutrients. It is comprised of approximately 21% protein, 38% carbohydrates, and 35% plant fats and oils. The active ingredients of Kalonji are nigellone, thymoquinone, and fixed oils.

Kalonji contains significant proportions of protein, carbohydrates and essential unsaturated fatty acids, namely linoleic acid and gamma linolenic acid(omega3 &6), which are essential for a healthy immune system other than calcium, potassium, iron, zinc, magnesium, selenium, vitamin A, vitamin B, vitamin B2, niacin, and vitamin C.

Nigellon semohiprepinon is an effective treatment of bronchial asthma and respiratory allergies because of its ability to expand and relax the air ways. It also reduces the release of histamines into the bloodstream and thus works against allergic reactions.

Another active ingredient of kalonji is Thymohydrochionon, also acts as an antihistamine and pain reliever.

Use of kalonji helps in synthesis of prostaglandin E1. Prostaglandin E1 suppresses the release of allergic messenger substances and harmonizes the immune system. During the course of long term use the body's defence mechanism stops its excess activity and regains its balance. This ameliorates ailments caused by allergic hyper-reactions, such as asthma, hay fever, and eczema

Long-term supplementation with Kalonji can reduce allergic symptoms greatly

It has been traditionally used for a variety of conditions and treatments related to respiratory health, stomach and intestinal health, kidney and liver function, circulatory and immune system support, as analgesic, antiinflammatory, antiallergic, antioxidants, anticancer, antiviral and for general well-being

Scientific research

Thymoquinone and pancreatic cancer treatment

Researchers at the Kimmel Cancer Center at Thomas Jefferson University in Philadelphia have found that thymoquinone, an extract of nigella sativa seed oil, blocked pancreatic cancer cell growth and killed the cells by enhancing the process of programmed cell death, (apoptosis). While the studies are in the early stages, the findings suggest that thymoquinone could eventually have some use as a preventative strategy in patients who have gone through surgery and chemotherapy or in individuals who are at a high risk of developing cancer.

"The seeds are also rich in sterols, especially beta-sitosterol, which is known to have anticarcinogenic activity."

- Dr. Michael Tierra L.AC. O.M.D

Black Seed stimulates bone marrow and immune cells and raises the interferon production, protects normal cells against cell destroying effects of viruses, destroys tumor cells and raises the number of anti-bodies producing B cells.. U.S. Patents Sections, Antiviral Agents Bulletin #5,482,711

Black Seed proves to have an anti histamine, ant-oxidant, anti=biotic, anti-mycotic and broncho-dilating effect. Cancer Immuno-biology Laboratory, South Carolina

Black Seed is valuable source of protein, carbohydrates, essential fatty acids, vitamins A, B1, B2, C and niacin as well as minerals such as calcium, potassium, iron magnesium & zinc Study of Black Seed oil on humans, American Scientists

Kalonji /Black seed/oil uses/home remedies

Cough and Asthma Mix a teaspoon of Kalonji Oil in boiling water and inhale the vapors twice a day. Half a teaspoon (2.5 ml) of Kalonji Oil mixed in a cup of warm water and a tablespoon of honey is also to be given twice daily in the morning and evening. Continue the treatment for 40 days

Dry Cough 2.5 ml Kalonji Oil should be mixed in coffee and given twice a day before meals.

High Chloestrol Give 2.5 ml Kalonji Oil mixed with hot milk daily in the mornings (only once a day). This dissolves fats and dilates veins and arteries

Headache and Ear ache Apply Kalonji Oil on the forehead, sides of the face adjacent to the ears and behind the ears and then bandage the forehead. Give 2.5 ml Kalonji twice a day and continue for 3 days.

Loss of Hair & Premature Graying. Scrub the scalp thoroughly with lemon, leave it for 15 minutes. Wash with water and shampoo after thoroughly drying, Thereafter apply Kalonji Oil to the scalp. Repeat for one week and the loss of hair will stop completely. Kalonji Oil stops falling of hair, and gives a new life to dry, damage, dull unmanageable hairs and prevents premature graying of hair. Use continuously for one month.

Weak Eyesight. Take half a teaspoon of Kalonji Oil along with a cup of carrot juice twice a day before meals. For weak eyesight continue the treatment for about 6 months

Backache and Rheumatic pain Mix 2,5 ml Kalonji Oil with one spoon of vinegar and a tablespoon of honey and take this mixture in the morning before breakfast and at night after dinner. Continue the treatment for 40 days.

Nausea/Vomiting Take half tsp of fresh ginger juice mixed with equal amount of Kalonji Oil, twice a day.

Toothache Mix half teaspoon (2.5 ml) of Kalonji Oil with warm water and gargle. Apply oil on the affected tooth, it will alleviate pain quickly

Nervous Tension/ Stress 2.5 ml of Kalonji Oil with a cup of tea twice a day before meals makes you calm down and eliminates all symptoms of tension.

General Weakness & Lethargy/Ed Take half teaspoon (2.5 ml) of Kalonji Oil with one cup orange juice in the morning for ten days.

For Improvement of Memory Take half a teaspoon of Kalonji Oil mixed with 10 gms. of boiled mint twice a day before meals for 20 days.

Diabetes Mix 2.5 ml of Kalonji Oil in a cup of Black Tea and drink in the morning before breakfast and at night after dinner. Continue the treatment till sugar level becomes normal.

Dyspepsia, Acidity & Stomachache

A cup of milk mixed with a teapoon (5 ml) of Kalonji Oil to be taken two times a day for 5 days.

Restful Sleep 2.5 ml Kalonji Oil mixed in a hot drink after supper gives a quiet sleep all through the night.

Leucorrhoea, Amenorrhoea and PMS Take 1 g dried mint leaves and boil in 2 glasses of water till one cup of water is left. Put half teaspoon of Kalonji Oil and give on an empty stomach in the morning and at night. Continue the treatment for 40 days.

Piles and Constipation Mix 2.5 ml of Kalonji Oil in a cup of Black Tea and drink in the morning before breakfast and at night after dinner.

Obesity Mix 2.5 ml of Kalonji Oil and a tablespoon of honey in lukewarm water and drink in the morning before breakfast and at night after dinner

Burning Sensation Mix 2.5 ml Kalonji Oil in one cup of Sweet Lime Juice and drink in the morning before breakfast and at night after dinner. Continue the treatment for 10 days.

Psoriasis Mix 50 ml Kalonji Oil with 60 ml Lemon Juice and apply on the affected area..

Burning in Urine Mix 2.5 ml Kalonji Oil and 10 ml Honey in 250 ml milk and drink twice a day.

Half tsp(2.5 ml) daily with pure honey two times a day is good for general health

What is Black Seed?

An annual herbaceous plant, black seed (*Nigella sativa*) is believed to be indigenous to the Mediterranean region but has been cultivated into other parts of the world including Saudi Arabia, northern Africa and parts of Asia.

Tiny and hairy, being no more than 3mm in length, black seed originates from the common fennel flower plant (*Nigella sativa*) of the buttercup (*Ranunculaceae*) family. *Nigella sativa* is sometimes mistakenly confused with the fennel herb plant (*Foeniculum vulgare*).

The plant has finely divided foliage and pale bluish purple or white flowers. The flowers grow terminally on its branches while the leaves grow opposite each other in pairs, on either side of the stem. Its lower leaves are small and petiole, and the upper leaves are long (6-10cm). The stalk of the plant reaches a height of twelve to eighteen inches as its fruit, the black seed, matures.

Nigella sativa reproduces with itself and forms a fruit capsule which consists of many white trigonal seeds. Once the fruit capsule has matured, it opens up and the seeds contained within are exposed to the air, becoming black in color (black seeds).

Nigella sativa and its black seed are known by other names, varying between places. Some call it black caraway, others call it black cumin (Kalonji), or even coriander seeds. In English, the *Nigella sativa* plant is commonly referred to as "Love in a Mist". Nevertheless, this is *Nigella sativa*, which has been known and used from ancient times and is also known in Persian as Shonaiz.

The most pertinent point to be made about black seed is that it should be regarded as part of an overall holistic approach to health and ideally should be incorporated into one's everyday lifestyle. In this way, the many nutritional and healing properties contained in the seed can help build the body's immune system over time, supplying it with the optimum resources it needs to help prevent and fight illness.

History of the Black Seed

Nigella sativa was discovered in Tutankhamen's tomb, implying that it played an important role in ancient Egyptian practices. Although its exact role in Egyptian culture is not known, we do know that items entombed with a king were carefully selected to assist him in the afterlife.

The earliest written reference to black seed is found in the book of Isaiah in the Old Testament. Isaiah contrasts the reaping of black cumin with wheat: For the black cumin is not threshed with a threshing sledge, nor is a cart wheel rolled over the cumin, but the black cumin is beaten out with a stick, and the cumin with a rod. (Isaiah 28:25,27 NKJV). Easton's Bible Dictionary clarifies that the Hebrew word for black cumin, "ketsah," refers to "without doubt the *Nigella sativa*, a small annual of the order *Ranunculaceae* which grows wild in the Mediterranean countries, and is cultivated in Egypt and Syria for its seed."

Dioscoredes, a Greek physician of the 1st century, recorded that black seeds were taken to treat headaches, nasal congestion, toothache, and intestinal worms. They were also used, he reported, as a diuretic to promote menstruation and increase milk production.

The Muslim scholar al-Biruni (973-1048), who composed a treatise on the early origins of Indian and Chinese drugs, mentions that the black seed is a kind of grain called alwanak in the Sigzi dialect. Later, this was confirmed by Suhar Bakht who explained it to be habb-i-Sajzi (viz. Sigzi grains). This reference to black seed as "grains" points to the seed's possible nutritional use during the tenth and eleventh centuries.

In the Greco-Arab/Unani-Tibb system of medicine, which originated from Hippocrates, his contemporary Galen and Ibn Sina, black seed has been regarded as a valuable remedy in hepatic and digestive disorders and has been described as a stimulant in a variety of conditions, ascribed to an imbalance of cold humours.

Ibn Sina (980-1037), most famous for his volumes called "The Canon of Medicine," regarded by many as the most famous book in the history of medicine, East or West, refers to black seed as the seed "that stimulates the body's energy and helps recovery from fatigue or dissipatedness."

Black seed is also included in the list of natural drugs of Al-Tibb al-Nabawi, and, according to tradition, "Hold onto the use of the black seed for it has a remedy for every illness except death." This prophetic reference in describing black seed as "having a remedy for all illnesses" may not be so exaggerated as it at first appears. Recent research has provided evidence which indicates that black seed contains an ability to significantly boost the human immune system - if taken over time. The prophetic phrase, "hold onto the use of the seed," also emphasizes consistent usage of the seed.

Black seed has been traditionally and successfully used in the Middle and Far East countries for centuries to treat ailments including bronchial asthma and bronchitis, rheumatism and related inflammatory diseases, to increase milk production in nursing mothers, to treat digestive disturbances, to support the body's immune system, to promote digestion and elimination, and to fight parasitic infestation. Its oil has been used to treat skin conditions such as eczema and boils and is used topically to treat cold symptoms.

The many uses of black seed has earned for this medicinal herb the Arabic approbation habbatul barakah, meaning "the seed of blessing."

Primary Properties of the Black Seed

As the evidence presented in this section will show, it is quite probable that as medical science increasingly learns more about black seed, one or more of its more active ingredients may become combined into a pharmacy prescription for specific conditions. In the event that this does occur, it is also likely that this particular extract of black seed will be chemically compounded and thus become a more potent medicine.

While it may be argued that chemical additives may increase black seed's effectiveness in treating specific conditions, the healing principles of black seed in its pure, natural form should also be taken into account.

Black seed, in its complete, natural form, acts on the principle of assisting the body's own natural healing process in overcoming illness or maintaining health. It works on the part or system of the body affected without disturbing its natural balance elsewhere.

The effect of black seed's combined nutritional and medicinal value is that not only does it help relieve the current condition at hand, but also helps the body build further resistance against future ailments or disease.

While historical evidence suggests black seed's potential use for a wide variety of ailments, we have limited our descriptions of its primary healing properties here to the most recent research findings on black seed.

How Does Black Seed Benefit?

The majority of our health problems have the same causes- infection by micro-organisms such as bacteria, viruses, parasites and fungi. When using clinical (allopathic medicines) each symptom is treated individually and usually with synthetic chemically manufactured medicines that contain alcohol and other harmful ingredients. Black seed is effective at treating the body as a whole and fights the actual cause of the symptoms. Black seed regulates too weak or too strong reactions of the immune system and is excellent for treating chronic, allergic and hormonal diseases. It uses are many as well as its benefit. Black seed support metabolism, improve digestion, and lowers blood sugar levels. It is used to dispel worms and parasites from intestinal track. It is useful in soothing bronchitis and coughs, increase body tone, stimulates menstrual periods, increases the flow of breast milk, provides quick energy, increases sperm count, calms the nervous system, encourages hair growth and retards hair fall out, prevents skin wrinkling, and much more.

How is Black Seed Used?

Black seed can be used in many ways. As a dietary supplement we recommend one teaspoon once or twice a day. the correct dosage is dependent on whether you are using it for prevention or treatment of acute problems. In one particular study in Munich, 600 allergy patients were given 500mg of black seed oil twice a day for 3 months. A clear improvement was observed in 85% of the patients. The oil can be mixed into any cold liquid or yogurt. It can also be applied topically for arthritis, eczema, psoriasis, and scalp ointment. The herb can be mixed with any hot or cold beverage or food. It can be used as a spice in vegetable or meat recipes. Click on our uses & recipes page The benefits are obtained through whichever way you choose.

Is Black Seed Ayurveda Medicine?

We consider Black seed Prophetic Medicine since it was recommended by the Prophet Muhammad (Peace be Upon Him) over 1400 years ago. He in his divine wisdom said "Use this Black seed, it has

a cure for every disease except death. Although Black seed does follow the Ayurveda theory with respect to the bitter alkaloid component, nigelline. According to the Ayurveda Theory bitter components work cooling, light and dry; after consumption they are sharp. It lowers fever, cleanses and dries excretions out. It gives tone to tissue and strengthens it, and even helps by skin irritations. It stimulates the appetite and metabolism and helps digestive problems. Bitter components also make it possible to eliminate excess acids

Why is Black Seed Considered a Universal Remedy?

The Prophet Muhammad (Peace be Upon Him) said in his divine wisdom about the Black seed

"Use this Black seed, it has a cure for every disease except death". (Sahih Bukhari)

Black seed unquestionably has a positive and stabilizing effect on the human immune system which . Moreover, since diseases are the result of defective immune systems, it is fair to assume that the beneficial effects go beyond skin disorders and allergies. Since the immune system has a direct or indirect effect on all the systems of the body, when you are infected by any disease, the power of the immunity system affects the cure of this disease.

Are There Any Side Effects?

Black seed is a safe and effective herb that can be used by almost anyone. No irritations or side effects are caused when the right dose is correctly applied. Its benefits are obtained through consistent use, the effects are medium to long term. Diabetes is useful in the treatment of diabetes mellitus or diabetes caused by an allergy. However it is recommended that the treatment be supervised because Black seed does lower blood sugar levels. Black seed should not be taken by pregnant women if their wombs are sensitive (Many Muslim women take it while pregnant and no harm has been found. I, Asma Rice, personally have taken it in all of my pregnancies without any harm, Alhamdulillah).

What Are Some Nutritional Components?

Black seed contains over 100 valuable nutrients. It contains about 21% protein, 38% carbohydrates and 35% plant fats and oils. The contents are similar to evening primrose oil, but because of its complex composition, it is much stronger. The active ingredients of black seed are Thymoquinone, Nigellone, and Fixed oils. It also contains in significant proportions protein, Carbohydrates and Essential fatty acids. Other ingredients include Linoleic acid, Oleic acid, Calcium, Potassium, Iron, Zinc, Magnesium, Selenium, Vitamin A, vitamin B, vitamin B2, Niacin, and Vitamin C.

Has There Been Any Scientific Research Done?

There has been numerous on going research on the effects of Black seed since 1959. Research carried out at major international universities and articles published in various scientific journals documenting the astonishing results of the Black seed. In 1960, Egyptian researchers confirmed

that Nigellone was responsible for Black seeds broncho-dilating effect. Scientists in Germany have confirmed the anti-bacterial and antimycotic effects of black seed oil. Scientist sat the Cancer and Immuno-Biological Laboratory have found that Black seed stimulates bone marrow and immune cells and raises the interferon production, protects normal cells against cell destroying effects of viruses, destroys tumor cells and raises the number of anti- bodies producing B cells. U.S researchers have written the world wide first report on the anti-tumor affects of Black seed oil. Its title "Study of the Effects of Nigella sativa on Humans".

Should I Take the Oil of the Herb?

Both are effective in their own right..

Do I Have to Be Sick to Take Black Seed?

Absolutely not! Nowadays because our food is more and more denaturalized, our bodies are full of free radicals which produce cancer. The essential fatty acids in black seed bind the free radicals and eliminate them. Since our bodies are not able to synthesize thereby making Black seed an important addition to our diet. Black seed also contains beta carotene, which is known to destroy cell damaging substances which produce cancer.

Black Seed is Rich in Nutritional Values.

Monosaccharides (single molecule sugars) in the form of glucose, rhamnose, xylose, and arabinose are found in the black seed.

The black seed contains a non-starch polysaccharide component which is a useful source of dietary fiber.

It is rich in fatty acids, particularly the unsaturated and essential fatty acids (Linoleic and Linoleic acid). Essential fatty acids cannot be manufactured by the body alone, and therefore we acquire these from food.

Fifteen amino acids make up the protein content of the black seed, including eight of the nine essential amino acids. Essential amino acids cannot be synthesized within our body in sufficient quantities and are thus required from our diet.

Black seed contains Arginine which is essential for infant growth.

Chemical analysis has further revealed that the black seed contains carotene, which is converted by the liver into vitamin A, the vitamin known for its anti-cancer activity.

The black seed is also a source of calcium, iron, sodium, and potassium. Required only in small amounts by the body, these elements' main function is to act as essential cofactors in various enzyme functions.

2. Immune System Strengthening

Studies begun just over a decade ago suggest that if used on an ongoing basis, black seed can play an important role to enhance human immunity, particularly in immunocompromise patients.

In 1986, Drs. El-Kadi and Kandil conducted a study with human volunteers to test the efficiency of black seed as a natural immune enhancer. The first group of volunteers received black seed capsules (1 gram twice daily) for four weeks and the second group were given a placebo. A complete lymphocyte count carried out in all volunteers before and four weeks after administration of black seed and the placebo revealed that the majority of subjects who took black seed displayed a 72% increase in helper to suppresser T-cells ratio, as well as an increase in natural killer cell functional activity. The control group who received the placebo experienced a net decline in ratio of 7%. They reported, "These findings may be of great practical significance since a natural immune enhancer like the black seed could play an important role in the treatment of cancer, AIDS, and other disease conditions associated with immune deficiency states."

These results were confirmed by a study published in the Saudi Pharmaceutical Journal in 1993 by Dr. Basil Ali and his colleagues from the College of Medicine at Kin Faisal University.

In the field of AIDS research specifically, tests carried out by Dr. Haq on human volunteers at the Department of Biological and Medical Research Center in Riyadh, Saudi Arabia (1997) showed that black seed enhanced the ratio between helper T-cells and suppresser T-cells by 55% with a 30% average enhancement of the natural killer (NK) cell activity.

3. Anti-histamine activity

Histamine is a substance released by bodily tissues, sometimes creating allergic reactions and is associated with conditions such as bronchial asthma.

In 1960, scientists Badr-El-Din and Mahfouz found that dimer dithymoquinone isolated from black seed's volatile oil, under the name of "Nigellone," and given by mouth to some patients suffering from bronchial asthma, suppressed the symptoms of the condition in the majority of patients.

Following the results of this early study, crystalline nigellone was administered to children and adults in the treatment of bronchial asthma with effective results and no sign of toxicity. It was observed, however, that although effective, crystalline nigellone displayed a delayed reaction.

In 1993, Nirmal Chakravarty, M.D., conducted a study to see if this delay could be attributed to the possibility of crystalline nigellone being an inhibitory agent on histamine. His hypothesis proved correct. Dr. Chakravarty's study found that the actual mechanism behind the suppressive effect of crystalline nigellone on histamine is that crystalline nigellone inhibits protein kinase C, a substance known to trigger the release of histamine. In addition, his study showed that crystalline nigellone decreased the uptake of calcium in mast cells, which also inhibits histamine release.

The importance of these results are that people who suffer from bronchial asthma and other allergic diseases may benefit from taking crystalline nigellone.

4. Anti-tumor principles

A study of black seed's potential anti-tumor principles by the Amala Research Center in Amala Nagar, Kerala (India) in 1991 lent further impetus to Dr. Chakravarty's suggestion for the possible use of black seed in the treatment of cancer.

Using an active principle of fatty acids derived from black seed, studies with Swiss albino mice showed that this active principle could completely inhibit the development of a common type of cancer cells called Ehrlich ascites carcinoma (EAC). A second common type of cancer cells, Dalton's lymphoma ascites (DLA) cells were also used.

Mice which had received the EAC cells and black seed remained normal without any tumor formation, illustrating that the active principle was 100% effective in preventing EAC tumor development.

Results in mice who received DLA cells and black seed showed that the active principle had inhibited tumor development by 50% less compared to mice not given the active principle.

The study concluded, "It is evident that the active principle isolated from nigella sativa seeds is a potent anti-tumor agent, and the constituent long chain fatty acid may be the main active component."

5. Anti-bacterial

In 1989, a report appeared in the Pakistan Journal of Pharmacy about anti-fungal properties of the volatile oil of black seed. 1992 saw researchers at the Department of Pharmacy, University of Dhaka, Bangladesh, conducting a study in which the antibacterial activity of the volatile oil of black seed was compared with five antibiotics: ampicillin, tetracycline, cotrimoxazole, gentamicin, and nalidixic acid.

The oil proved to be more effective against many strains of bacteria, including those known to be highly resistant to drugs: *V. cholera*, *E. coli* (a common infectious agent found in undercooked meats), and all strains of *Shigella* spp., except *Shigella dysenteriae*. Most strains of *Shigella* have been shown to rapidly become resistant to commonly used antibiotics and chemotherapeutic agents.

In light of the above research findings, it is of interest that homeopaths have long been known to make a tincture from the black seed for digestive and bowel complaints. Traditionally, the black seed is still used to help relieve vomiting and diarrhea, as well as flatulent colic, and to help counteract the griping action of purgatives (e.g. certain laxatives, fruits such as apricots when over consumed).

6. Anti-inflammatory

As early as 1960, Professor El-Dakhkny reported that black seed oil has an anti-inflammatory effect and that it could be useful for relieving the effects of arthritis.

In 1995, a group of scientists at the Pharmacology Research Laboratories, Department of Pharmacy, Kings College, Lond, decided to test the effectiveness of the fixed oil of *Nigella sativa* and its derivative, thymoquinone, as an anti-inflammatory agent. Their study found that the oil inhibited eicosanoid generation and demonstrated anti-oxidant activity in cells.

The inhibition of eicosanoid generation, however, was higher than could be expected from thymoquinone alone. Their study suggested that other compounds within the oil might also be responsible for the enhanced anti-inflammatory reactions in cells.

The scientists speculated that the unusual C20:2 unsaturated fatty acids contained in black seed were possibly responsible for boosting the oil's effectiveness.

In 1997, studies conducted at the Microbiological Unit of the Research Center, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia, found that externally in an ointment form, the anti-inflammatory activity of the black seed was found to be in the same range as that of other similar commercial products. The tests also demonstrated that the black seed is non-allergenic.

7. Promotes lactation

A study by Agarwal (1979) showed that black seed oil increases the milk output of breastfeeding mothers.

A literature search by the University of Potchefstroom (1989), including biological abstracts, revealed that black seed's capacity to increase the milk flow of nursing mothers could be attributed to a combination of lipid portion and hormonal structures found in the black seed.

In Malayalam it is pronounced as ell and gondh or gum tree = Kunthirikkam, it is an incense.

kalonji in tamil is called as "KARUNJEERAGAM"

Black seed

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Nutritional value

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- Monosaccharides (single molecule sugars) in the form of glucose, rhamnose, xylose, and arabinose are found in the black seed.
- The black seed contains a non-starch polysaccharide component which is a useful source of dietary fiber.
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- Fifteen amino acids make up the protein content of the black seed, including eight of the nine essential amino acids. Essential amino acids cannot be synthesized within our body in sufficient quantities and are thus required from our diet.
- Black seed contains Arginine which is essential for infant growth.
- Chemical analysis has further revealed that the black seed contains carotene, which is converted by the liver into vitamin A, the vitamin known for its anti-cancer activity.
- The black seed is also a source of calcium, iron, sodium, and potassium. Required only in small amounts by the body, these elements' main function is to act as essential cofactors in various enzyme functions.

2. Immune system strengthening

Studies begun just over a decade ago suggest that if used on an ongoing basis, black seed can play an important role to enhance human immunity, particularly in immunocompromise patients.

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In 1960, scientists Badr-El-Din and Mahfouz found that dimer dithymoquinone isolated from black seed's volatile oil, under the name of "Nigellone," and given by mouth to some patients suffering from bronchial asthma, suppressed the symptoms of the condition in the majority of patients.

Following the results of this early study, crystalline nigellone was administered to children and adults in the treatment of bronchial asthma with effective results and no sign of toxicity. It was observed, however, that although effective, crystalline nigellone displayed a delayed reaction.

In 1993, Nirmal Chakravarty, M.D., conducted a study to see if this delay could be attributed to the possibility of crystalline nigellone being an inhibitory agent on histamine. His hypothesis proved correct. Dr. Chakravarty's study found that the actual mechanism behind the suppressive effect of crystalline nigellone on histamine is that crystalline nigellone inhibits protein kinase C, a substance known to trigger the release of histamine. In addition, his study showed that crystalline nigellone decreased the uptake of calcium in mast cells, which also inhibits histamine release.

The importance of these results are that people who suffer from bronchial asthma and other allergic diseases may benefit from taking crystalline nigellone.

4. Anti-tumor principles

A study of black seed's potential anti-tumor principles by the Amala Research Center in Amala Nagar, Kerala (India) in 1991 lent further impetus to Dr. Chakravarty's suggestion for the possible use of black seed in the treatment of cancer.

Using an active principle of fatty acids derived from black seed, studies with Swiss albino mice showed that this active principle could completely inhibit the development of a common type of cancer cells called Ehrlich ascites carcinoma (EAC). A second common type of cancer cells, Dalton's lymphoma ascites (DLA) cells were also used.

Mice which had received the EAC cells and black seed remained normal without any tumor formation, illustrating that the active principle was 100% effective in preventing EAC tumor development. Results in mice who received DLA cells and black seed showed that the active principle had inhibited tumor development by 50% less compared to mice not given the active principle. The study concluded, "It is evident that the active principle isolated from nigella sativa seeds is a potent anti-tumor agent, and the constituent long chain fatty acid may be the main active component."

5. Anti-bacterial

In 1989, a report appeared in the Pakistan Journal of Pharmacy about anti-fungal properties of the volatile oil of black seed. 1992 saw researchers at the Department of Pharmacy, University of Dhaka, Bangladesh, conducting a study in which the antibacterial activity of the volatile oil of black seed was compared with five antibiotics: ampicillin, tetracycline, cotrimoxazole, gentamicin, and nalidixic acid.

The oil proved to be more effective against many strains of bacteria, including those known to be highly resistant to drugs: *V. cholera*, *E. coli* (a common infectious agent found in undercooked meats), and all strains of *Shigella* spp., except *Shigella dysenteriae*. Most strains of *Shigella* have been shown to rapidly become resistant to commonly used antibiotics and chemotherapeutic agents.

In light of the above research findings, it is of interest that homeopaths have long been known to make a tincture from the black seed for digestive and bowel complaints. Traditionally, the black seed is still used to help relieve vomiting and diarrhea, as well as flatulent colic, and to help counteract the griping action of purgatives (e.g. certain laxatives, fruits such as apricots when over consumed).

6. Anti-inflammatory

- As early as 1960, Professor El-Dakhakny reported that black seed oil has an anti-inflammatory effect and that it could be useful for relieving the effects of arthritis.
- 1995, a group of scientists at the Pharmacology Research Laboratories, Department of Pharmacy, Kings College, Lond, decided to test the effectiveness of the fixed oil of *Nigella sativa* and its derivative, thymoquinone, as an anti-inflammatory agent. Their study found that the oil inhibited eicosanoid generation and demonstrated anti-oxidant activity in cells.
- The inhibition of eicosanoid generation, however, was higher than could be expected from thymoquinone alone. Their study suggested that other compounds within the oil might also be responsible for the enhanced anti-inflammatory reactions in cells.
- The scientists speculated that the unusual C20:2 unsaturated fatty acids contained in black seed were possibly responsible for boosting the oil's effectiveness.
- In 1997, studies conducted at the Microbiological Unit of the Research Center, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia, found that externally in an ointment form, the anti-inflammatory activity of the black seed was found to be in the same range as that of other similar commercial products. The tests also demonstrated that the black seed is non-allergenic.

7. Promotes lactation

- A study by Agarwhal (1979) showed that black seed oil increases the milk output of breastfeeding mothers.
- A literature search by the University of Potchefstroom (1989), including biological abstracts, revealed that black seed's capacity to increase the milk flow of nursing mothers could be attributed to a combination of lipid portion and hormonal structures found in the black seed

