**Black seed (Nigella sativa Linn.)**

**Introduction**

Black seed, also known as Nigella sativa, has been used for centuries for various medical reasons. It's well-known in Islam and Christianity because it's mentioned in their religious books. This plant has been used to treat many illnesses like asthma, fever, and inflammation. Scientists have studied it and found that it contains helpful chemicals and has many health benefits, like fighting diabetes, cancer, and infections. This review will give an easy-to-understand overview of what's in black seed and how it can help our health. It's a useful guide for scientists, researchers, and doctors who want to know more about this special plant.

### **Scientific name and classification**

Plant family: Ranunculaceae

**Chemical constituent of *N. sativa.***

| ***Group*** | ***Sub Groups*** | ***Active constituents*** |
| --- | --- | --- |
| Fixed oil | Unsaturated fatty acids  Saturated fatty acids | Oleic acid, Linoleic acid, dihomolinoleic acid, eicodadienoic acid  Palmitic acid, stearic acid |
| Terpenes | Aliphatic | Thymoquinone, p-cymene, α-pinene, dithymoquinone, thymohydroquinone, Carvacrol, carvone, limonene, 4-terpineol, citronellol, anethol |
| Alkaloids | Isoquinoline alkaloids  Pyrazole alkaloids | Nigellicimine, Nigellicimine N-oxide  Nigellidine, nigellicine |
| Coumarins | Methoxy coumarin  Hydroxy coumarin  Oxy coumarin | 6-methoxy-coumarin  7-hydroxy-coumarin  7-oxy-coumarin |
| Saponins | Steroidal  Triterpenes | Alpha hedrin  Steryl glucosides, Acetyl-steryl-glucoside |
| Flavonoids | Flavonoidal pigment  Flavonoidal glycoside | Quercetin  Kaempferol 3-glucosyl galactosyl glucoside, quercetin 3-galactosyl glucoside, trigillin quercetin-3-glucoside |
| Phenolics | Acidic phenolics | Vanillic acid, hydroxybenzoic acid, syringicacid, p-cumaric acidsAmino acids |
| Amino acids | Essential amino acids | Valine, phenylalanine, threonine, methionine, histidine, tryptophan, leucine, isoleucine, lysine |
| Metals and trace elements |  | Calcium, iron, and potassium, phosphorus, zinc |

*Reference:*

*Ahmad MF, Ahmad FA, Ashraf SA, Saad HH, Wahab S, Khan MI, Ali M, Mohan S, Hakeem KR, Athar MT. An updated knowledge of Black seed (Nigella sativa Linn.): Review of phytochemical constituents and pharmacological properties. J Herb Med. 2021 Feb;25:100404. doi: 10.1016/j.hermed.2020.100404. Epub 2020 Sep 19. PMID: 32983848; PMCID: PMC7501064.*