

Black cumin (*Nigella sativa*) and its constituent (thymoquinone): a review on antimicrobial effects

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Using Black cumin orally or topically has been reported to have significant effects against a variety of diseases including skin diseases, jaundice, rheumatism, dyspepsia, hypertension, intrinsic hemorrhage, paralysis, amenorrhea, anorexia, asthma, cough, bronchitis, headache, influenza, fever, gastrointestinal problems, conjunctivitis, and eczema. Black cumin and its major constituent, Thymoquinone (TQ), have a wide antimicrobial spectrum including Gram-negative, Gram-positive bacteria, parasites, schistosoma, and fungi. The nutritional composition of black cumin are vitamins, mineral elements, carbohydrates, fats, and proteins that include eight or nine vital amino acids. To investigate the antibacterial effects of black cumin in- vitro, 16 Gram-negative and 6 Gram-positive, demonstrated multiple resistance against antibiotics; in addition, black cumin seed oil showed to have strong antibacterial activity against all the strains of *L monocytogenes*—a pathogenic bacteria. Pervious and current studies on black cumin and TQ indicate that this plant may be a valuable agent for microbial diseases; however, additional studies are needed to determine and evaluate the specific cellular and molecular mechanisms of the antimicrobial effects of black cumin seed.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387228/>