IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 3, January 2024

The Health Benefits and Chemical Constituents of Turmeric (Curcuma Longa): A Review

Jyoti Hazra[1] and Dr. Sukeerti Singh[2]
Research Scholar, Department of Chemistry[1]
Associate Professor, Department of Chemistry[2]
Sunrise University, Alwar, Rajasthan, India

Abstract: *Turmeric (Curcuma longa), a perennial herbaceous plant of the ginger family, has been extensively studied for its phytochemical and pharmacological significance. This review explores the bioactive compounds, primarily curcuminoids, with curcumin being the most prominent, responsible for turmeric's vibrant yellow color and potent therapeutic properties. The phytochemical profile of turmeric includes volatile oils, such as turmerone, atlantone, and zingiberene, which contribute to its diverse pharmacological activities. Turmeric exhibits a broad spectrum of pharmacological actions including anti-inflammatory, antioxidant, antimicrobial, anticancer, and neuroprotective effects. These properties are attributed to its ability to modulate various molecular pathways and biological targets, making it a valuable agent in managing chronic diseases like cancer, cardiovascular diseases, diabetes, and neurodegenerative disorders. The review also highlights the challenges associated with the bioavailability of curcumin and the ongoing research to enhance its absorption and efficacy through novel delivery systems. Overall, turmeric's extensive therapeutic potential underscores its importance in traditional medicine and modern pharmacology, warranting further investigation and application in clinical settings.*

Keywords: Anti-inflammatory, Antioxidant.