

Chapter-6

Dietary Flavonoids and COVID-19 Prevention

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Abstract

“The COVID 19 Pandemic has impacted millions of peoples globally, prompting researchers to investigate different methods for its preventions and control”. Natural compounds such as dietary flavonoids, commonly presents in fruits, vegetables, tea, and other plant based foods have becoming a growing focus of interest. Flavonoids are well recognized for their antioxidant, anti-inflammatory, and anti-viral effects. Recent studies indicate that these compounds may help protect against COVID 19 by blocking the virus from entering human cells and reducing its replications. Some of flavonoids are like quercetin, kaempferol, hesperidin, and catechins have demonstrated potential in laboratory studies by inhibiting key viral proteins and enhancing the body’s immune defense. Additionally flavonoids may assist in controlling the harmful immune overreaction known as “cytokine storm” which can cause serious complications in COVID-19 patients. While these initial results are encouraging, most of the current evidence is based on the laboratory experiments and computer simulations with limited studies conducted on humans. Consuming foods rich in flavonoids may offers additional health benefits and potentially supports COVID-19 prevention, but they should never be considered a substitute for vaccination or proper medical treatment. Clinical researcher is essential to thoroughly evaluate the effectiveness of dietary flavonoids in preventing COVID-19. This chapter emphasizes the potential of