

Are Fermented Foods Effective against Inflammatory Diseases?

ABSTRACT

Fermented foods have been used over the centuries in various parts of the world. These foods are rich in nutrients and are produced naturally using various biological tools like bacteria and fungi. Fermentation of edible foods has been rooted in ancient cultures to keep food for preservation and storage for a long period of time with desired or enhanced nutritional values. Inflammatory diseases like rheumatoid arthritis, osteoarthritis, and chronic inflammatory pain are chronic disorders that are difficult to treat, and current treatments for these disorders fail due to various adverse effects of prescribed medications over a long period of time. Fermented foods containing probiotic bacteria and fungi can enhance the immune system, improve gastrointestinal health, and lower the risk of developing various inflammatory diseases. Foods prepared from vegetables by fermentation, like kimchi, sauerkraut, soy-based foods, or turmeric, lack proper clinical and translational experimental studies. The current review has focused on the effectiveness of various fermented foods or drinks used over centuries against inflammation, arthritis, and oxidative stress. We also described potential limitations on the efficacies or usages of these fermented products to provide an overarching picture of the research field.