

# The Mediterranean Diet and Food Intolerance Elimination: A Dual Approach for Reducing Low-Grade Inflammatory Markers in Obese Patients

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The Mediterranean diet (MedDiet) is one of the most widely studied and utilized dietary patterns, originally introduced by Ancel in the 1960s. It is based on traditional foods commonly consumed in the Mediterranean region (1). The MedDiet emphasizes plant-based foods, healthy fat and moderation red wine consumption. Key components include a high intake of plant foods, minimally processed, seasonally fresh and locally grown foods; fresh fruits as typical dessert, with sweets containing sugars or honey a few times per week; a high intake of olive oil (especially virgin and extra-virgin olive oil) used as the principal source of fat; a moderate intake of dairy products; zero to four eggs a week; fish and poultry consumed in low to moderate amounts; red meat consumed in low amounts; and wine in moderation, consumed with meals (1,2). Numerous studies have shown that the MedDiet can promote weight loss and help prevent heart attacks, strokes, type 2 Diabetes, and premature mortality.

On the other hand, obesity is associated with chronic low-grade inflammation, a factor that is believed to contribute to insulin resistance. In recent years, obesity has been recognized as an inflammatory disease and weight loss programs utilizing various dietary models have been shown to reduce the inflammation. Overweight and obese individuals have altered serum levels of inflammatory cytokines such as C-reactive protein (CRP), fibrinogen, HOMA-IR and interleukins. Evidence from observational and

intervention studies suggests that the MedDiet can help to decrease insulin resistance (3).

Food intolerance is also one of the probable causes of low-grade inflammation as it may lead to increased calorie intake, contributing to the development of obesity. Food intolerance involves an adverse reaction to certain foods and is associated with chronic systemic inflammation. The food intolerance elimination diet is often helpful for identifying and removing foods associated with symptoms that may interfere with weight loss (4). Low-grade inflammation, triggered by food consumption, can lead to dysmetabolic conditions that disrupt homeostasis, promoting the development of cardiovascular diseases, diabetes, cancer and other diseases. Two key factors contributing to low-grade inflammation are obesity and food intolerance. However, both can be addressed without medication. A combination of MedDiet and food intolerance elimination can help reduce obesity and lower levels of low-grade of inflammation.

On the other hand, dietary interventions have been shown to effectively to reduce inflammation in obesity and related metabolic dysfunctions. Although the roles of low-grade inflammation in the homeostasis and metabolism of obese patients are not yet fully understood, ongoing research into these markers remains crucial (5).

A combination of food intolerance modification and MedDiet can lead to positive changes on body composition and metabolic parameters in obese individuals. However, further research is

needed to explore the correlations between different inflammatory markers across populations, which will help deepen our understanding of the underlying mechanisms linking obesity and inflammation.

**Acknowledgements:** None declared.

**Conflict of Interest Statement:** The author declares that have no conflict of interest.

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