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## Prevention of Nonalcoholic Fatty Liver Disease (NAFLD) Progression to Nonalcoholic Steatohepatitis (NASH) by Modification of Lifestyle and Dietary Supplements

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The prevalence of Nonalcoholic Fatty Liver Disease (NAFLD) is growing at an alarming rate as the prevalence of obesity and cardiovascular risk factors are increasing rapidly [1]. Although there is a relatively long time for management of obesity and reversing its effects on the health, we have a short time for management of NAFLD and prevention of the disease progression to the Nonalcoholic Steatohepatitis (NASH), and hepatic cirrhosis. Thus, it is important to treat the disease before that it would be too late for treatment. On the other hand, since the patients with NAFLD do not experience any signs and symptoms, the disease might not be diagnosed at its early stages, and when the disease is diagnosed, patients are not eager to get the treatment and follow the management strategies. All of these problems lead to unsuccessful treatment of the disease, and progression of it to the later stages such as NASH and cirrhosis.

The only proven treatment strategy for NAFLD is lifestyle modifications; it has been shown that 10% weight loss within 6 months is associated with improvement of the disease [2]. Also, the superiority of adding dietary supplements to the lifestyle modifications have been shown previously [3,4]. Supplementation with probiotics has shown promising effects on the management of NAFLD in relatively long time [5-7]. Furthermore, adding Cinnamon and turmeric, as insulin sensitizers, to the dietary intakes increased the efficacy of diet therapy in patients with NAFLD [8, 9]. Resveratrol, as an anti-oxidant agent, also reduces both inflammation [10, 11], and metabolic disturbances [12] in patients with NAFLD. Moreover, flaxseed supplementation,

as an excellent source of lignans, n-3 fatty acids, and fibre, has shown significant beneficial effects on the all characteristics of NAFLD [13]. Thus, it seems that addition of supplements with anti-inflammatory, anti-oxidative, and insulin sensitizer effects can help patients with NAFLD to manage their disease more conveniently.

In conclusion, adherence to a healthy life style and a preferred dietary supplementation should be advised in patients with NAFLD. Considering the high prevalence of the disease in overweight people, and people with metabolic syndrome, these guidelines should be provided for all people at risk of development of the disease.

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