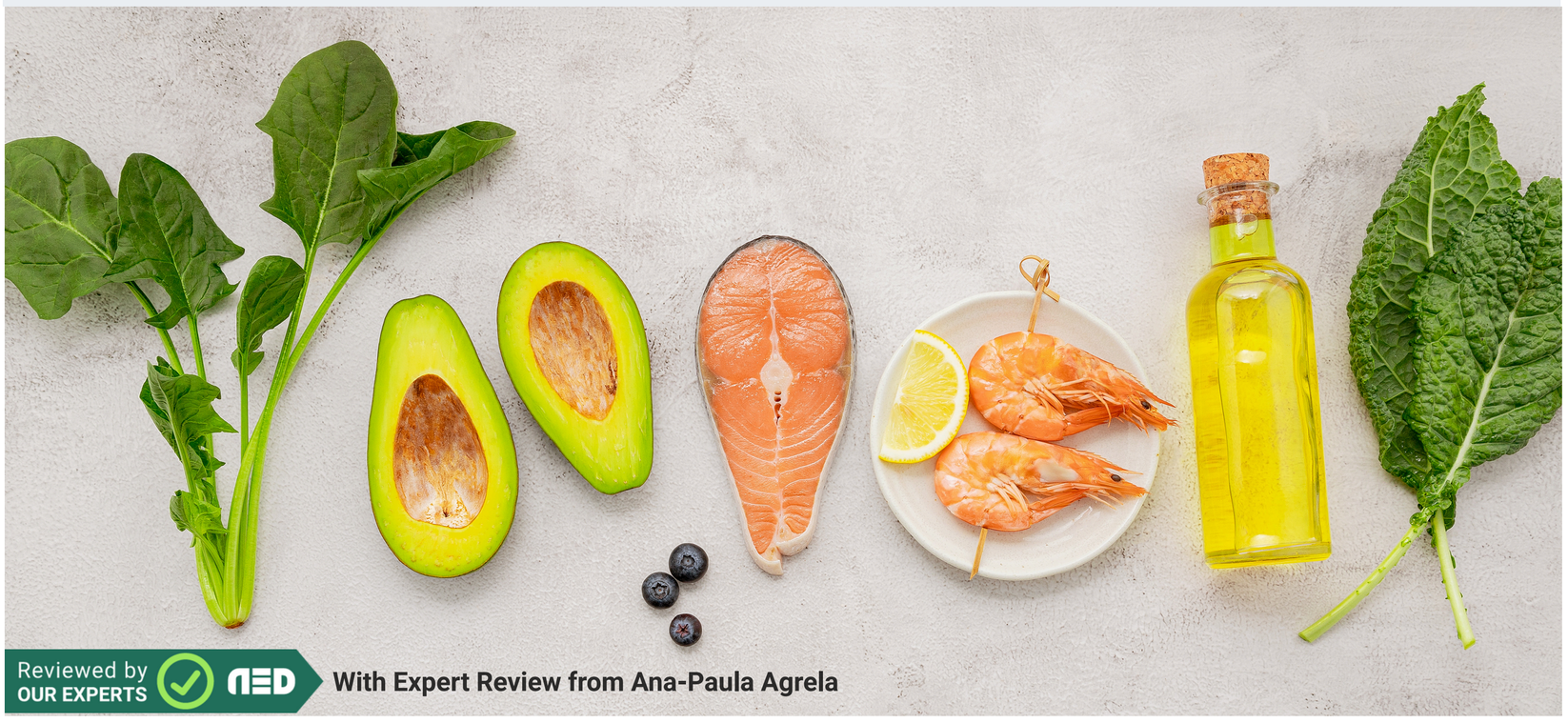
Ketogenic Diet

The Effect of a Ketogenic Diet versus Mediterranean Diet on Clinical and Biochemical Markers of Inflammation in Patients with Obesity and Psoriatic Arthritis: A Randomized Crossover Trial

PELAGIA KATSIMBRI, EMMANOUIL KORAKAS, AIKATERINI KOUNTOURI, ET AL.
JOURNAL: INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES 2024;25(5):2475



Reviewed by OUR EXPERTS

With Expert Review from Ana-Paula Agrela

An increasing body of research suggests a link between obesity and the onset of psoriasis, with inflammation implicated as the connection. The Mediterranean diet (MD) and ketogenic diet (KD) have both been shown to have anti-inflammatory actions but their comparative effectiveness has not been studied.

The aim of this study was to compare the effectiveness of the MD and an isocaloric KD in people with obesity and psoriasis and psoriatic arthritis. This was an 8-week randomised, cross-over, open-label, control trial of 26 individuals with a body mass index in the obese range and with psoriasis and/or psoriatic arthritis.

The results showed that both diets resulted in decreased weight, body mass index (BMI), waist circumference, total fat mass, and visceral fat mass compared to baseline.

However, only KD showed improvements from baseline in Psoriasis Area and Severity Index (PASI), Disease Activity Index of Psoriatic Arthritis (DAPSA), interleukin (IL)-6, IL-17, and IL-23. MD was not associated with these improvements.

Authors concluded that adoption of the MD and KD were associated with benefits to disease activity and inflammation in individuals with obesity and psoriasis or psoriatic arthritis, mainly attributable to the KD. ■

Effects of Ketogenic Diet on Cognitive Function of Patients with Alzheimer's Disease: a systematic review and meta-analysis

LIYANG RONG, YATING PENG, QI SHEN, KEYING CHEN, BANGJIANG FANG, WEIRONG LI
JOURNAL: THE JOURNAL OF NUTRITION, HEALTH & AGING 2024;28(8):100306

Reviewed by OUR EXPERTS

With Expert Review from Karin Elgar

Alzheimer's disease (AD) is a neurodegenerative disease characterised by cognitive decline and memory loss. The ketogenic diet (KD) is a very low carbohydrate, high fat, and moderate protein diet, which aims to shift the body's metabolism into ketosis.

The aim of this study was to determine the effect of the KD on cognitive function in individuals with AD. This research was a systematic review and meta-analysis of 10 randomised controlled trials with 691 individuals with AD.

The results showed that KD improved cognitive function as measured by the mini-mental status examination and the Alzheimer's Disease Assessment Scale-Cognitive Subscale and the Nishimura Geriatric Rating Scale for Mental Status. However, it also showed that elevated ketones may also lead to an elevation in triglycerides and low-density lipoprotein. Authors concluded that the KD can enhance mental and cognitive function but may lead to elevated blood lipid levels. ■

Reviewed by OUR EXPERTS

Effects of a Ketogenic Diet on Body Composition in Healthy, Young, Normal-Weight Women: A Randomized Controlled Feeding Trial

ANNA SJÖDIN, JONAS BURÉN, MICHAEL SVENSSON ET AL.
JOURNAL: NUTRIENTS 2024;16(13):2030

With Expert Review from Chloe Steele

The ketogenic diet (KD) is a high fat, low carbohydrate diet that has been researched in individuals with chronic diseases. The aim of this study was to determine the effects of a KD in healthy, young, normal-weight women.

This research was a cross-over randomised controlled trial of 17 women aged 18-30 years with a body mass index in the normal range.

The results showed that compared to a control diet, a KD decreased total fat mass. However, those on the KD also lost total lean mass and appendicular lean mass. Authors concluded that KD is effective for weight loss in healthy, normal weight women, but at detriment to muscle mass. ■

Effect of Weight-Maintaining Ketogenic Diet on Glycemic Control and Insulin Sensitivity in Obese T2D Subjects

AURORA MEROVCI, ANDREA HANSIS-DIARTE, EUGENIO CERSOSIMO ET AL.
JOURNAL: BMJ OPEN DIABETES RESEARCH & CARE 2024;12(5):

Low carbohydrate, ketogenic diets (LCKD) have gained popularity for weight loss and improvements to glycaemic control and insulin resistance. This study aimed to determine the effect of a weight-maintaining LCKD on glycaemic control in individuals with type 2 diabetes.

This was a randomised control trial of 29 individuals with overweight or obesity and a HbA1c of 7.0-10.5. Participants were assigned to either a standard weight-maintaining diet, a LCKD, or a LCKD with keto ester supplementation for 10 days.

The results showed that body weight, and body fat percentage remained constant over the study period and shifts were seen towards the use of ketones for metabolism. Glucose control remained unchanged in the two ketogenic diet groups. Insulin sensitivity in several tissues, blood pressure, and blood lipids also remained unchanged in the two LCKD groups. ■