

Mediterranean diet and exercise can reduce sleep apnea symptoms

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Eating a Mediterranean diet combined with physical activity can help to improve some of the symptoms of sleep apnoea, according to new research.

The study, which is published online in the [European Respiratory Journal](#), looked at the impact a [Mediterranean diet](#) can have on obese people with sleep apnoea, compared to those on a prudent diet.

Obstructive sleep apnoea syndrome (OSAS) causes frequent pauses of breathing to occur during sleep, which disrupts a person's normal sleeping pattern. It is one of the most prevalent sleep-related breathing disorders with approximately 2-4% of the [adult population](#) experiencing the condition. This percentage increases up to 20-40% with obesity, and weight loss is often an essential part of the recommended treatment plan.

The researchers, from the University of Crete in Greece, examined 40 [obese patients](#) suffering from OSAS. Twenty patients were given a prudent diet to follow, while the other 20 followed a Mediterranean diet*. Both groups were also encouraged to increase their physical activity, mainly involving walking for at least 30 minutes each day.

In both groups, the patients also received continuous positive [airway pressure](#) (CPAP) therapy which involves wearing a mask that generates an air stream, keeping the upper airway open during sleep.

The researchers monitored the patients during a sleep study, known as

polysomnography. This involved monitoring several markers for OSAS, including electrical activity in the brain, [eye movements](#) and snoring. The patients were examined at the start of the study and again 6 months later.

The results showed that people following the Mediterranean diet had a reduced number of disturbances, known as apnoeas, during the [rapid eye movement](#) (REM) stage of sleep, which usually accounts for approximately 25% of total sleep during the night.

The findings also revealed that people following the Mediterranean diet also showed a greater adherence to the [calorie restricted diet](#), an increase in physical activity and a greater decrease in abdominal fat.

The results of this small sample did show an improvement during one stage of sleep for people with [sleep apnoea](#), however it did not show an overall improvement in severity of the condition. The authors suggest that further studies in a larger sample are required to fully understand the benefits of this diet.

Christopher Papandreou, lead author for the research, said: "This is the first study examining the impact of the Mediterranean diet in combination with physical activity on OSAS via changes in the human body. Our results showed that the number of disturbances during REM sleep was reduced more in the Mediterranean diet group than the other group. Recent reports have related an increase in disturbances during REM sleep with the risk of developing significant systemic consequences like diabetes type II. However, its clinical significance remains unclear. Finally, more studies are needed to examine the effect of the above diet on this sleep-related breathing disorder taking into account its anti-inflammatory and antioxidant properties."

More information: Effect of Mediterranean Diet vs Prudent Diet

Combined with Physical Activity on OSAS: A Randomised Trial,
Christopher Papandreou, Sophia E. Schiza, Izolde Bouloukaki, Christos
M. Hatzis, Anthony G. Kafatos, Nikolaos M. Sifakos, and Nikolaos E.
Tzanakis, [DOI:10.1183/09031936.00103411](https://doi.org/10.1183/09031936.00103411)

*Recommended consumption of several food groups according to the
prescribed diet:

Red meat (servings/wk) 9 (prudent diet) 3 (Mediterranean diet)
Poultry (servings/wk) 3 (prudent diet) 3 (Mediterranean diet)
Fish (servings/wk) 1 (prudent diet) 3 1 of which is fatty fish
(Mediterranean diet)
Dairy products, low fat (servings/d) 2 (prudent diet) 2 (Mediterranean
diet)
Fruit (servings/d) 1-2 (prudent diet) 4 (Mediterranean diet)
Vegetables (servings/d) 1.5 (prudent diet) 5 (Mediterranean diet)
Legumes (servings/wk) 1 (prudent diet) >3 (Mediterranean diet)
Potatoes (servings/wk) >5 (prudent diet) >5 (Mediterranean diet)
Non-refined cereals (servings/d) 2 (prudent diet) 6 (Mediterranean diet)
Red wine (glasses/d) 0 (prudent diet) 1-2 (Mediterranean diet)
Daily use of olive oil moderate (prudent diet) moderate (Mediterranean
diet)

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