

Vitamin D supplements may promote weight loss in obese children

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Vitamin D supplements may promote weight loss and reduce risk factors for future heart and metabolic disease in overweight and obese children, according to research presented today at the 57th Annual European Society for Paediatric Endocrinology Meeting. These findings indicate that simple vitamin D supplementation may be part of an effective strategy to tackle childhood obesity and reduce the risk of serious health problems, such as heart disease, in adulthood.

Obesity in childhood and adolescence represents a major health problem worldwide, which leads to the development of expensive, serious and debilitating complications, including [heart disease](#) and diabetes, in later life. Although vitamin D deficiency is typically associated with impaired bone health, in recent years it has been increasingly linked with increased body fat accumulation and obesity, with the precise nature of this relationship currently under intense investigation by researchers. However, the effect of vitamin D supplementation on the weight and health of [obese children](#) and adolescents had not yet been investigated.

In this study, Dr. Christos Giannios, Professor Evangelia Charmandari and colleagues at the University of Athens Medical School and the 'Aghia Sophia' Children's Hospital in Athens, assessed 232 obese children and adolescents over 12 months, with 117 randomly assigned to receive vitamin D supplementation, in accordance with the Endocrine Society's guidelines on treatment and prevention of deficiency. Levels of vitamin D, body fat, and blood markers of liver function and heart health were assessed at the start of the study and 12 months later. The study reported that children given vitamin D [supplements](#) had significantly lower body mass index, body fat and improved cholesterol levels after 12 months of supplementation.

"These findings suggest that simple vitamin D supplementation may reduce the risk of overweight and obese children developing serious heart and metabolic complications in later life," says lead researcher Prof Charmandari.

The team now plan to investigate the effects of vitamin D supplementation on the health of obese [children](#) and adolescents that already have unhealthy conditions, such as high blood pressure, high blood glucose and high cholesterol, all of which increase the risk of heart disease, stroke and diabetes.

Prof Charmandari cautions, "Although these initial findings indicate that vitamin D could be used in the treatment of obesity, there remains a lack of evidence on the safety and long-term effects of supplementation, particularly if there is no vitamin D deficiency. However, if your child is overweight or obese I recommend that you consult your primary care physician for advice, and consider having their [vitamin D](#) levels tested."

More information: The study "The effect of vitamin D supplementation on metabolic syndrome parameters in overweight and obese children and

adolescents in Greece" (abstract P3-P149), will be presented at the 57th Annual European Society for Paediatric Endocrinology Meeting in Athens, Greece.

Provided by European Society for Paediatric Endocrinology

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