

High protein diets, from both animal and plant sources, improve blood sugar control in diabetic patients

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New research presented at this year's annual meeting of the European Association for the Study of Diabetes (EASD) shows that high protein diets improve blood sugar control in patients with type 2 diabetes without any adverse effects on kidney function. The research is by Mariya Markova, German Institute of Human Nutrition (Dife), Charité University Medicine, Berlin, Germany, and colleagues.

Previous studies have reported both favourable and adverse impacts of high-protein diet in type 2 diabetes. This new research compared the effects of two [high-protein diets](#) with the same number of calories—one from [animal protein](#) (AP) and one from plant protein (PP)—on metabolic functioning and liver fat.

A total of 37 people (24 men, 13 women) with type 2 diabetes (mean age 65 years, mean BMI 30 kg/m², mean HbA1c 7.0%) were randomised to receive either high-animal (meat and dairy foods) or high-plant (dietary pulses) protein diet (30% protein, 40% carbohydrates, 30% fat) for 6 weeks. Before and after the diet intervention, various tests were completed to measure the above parameters.

The researchers found that liver enzyme tests improved after intervention in both groups, and both liver fat and HbA1c were reduced in all participants. Insulin sensitivity improved only in the AP group, while in the PP group there was a significant reduction of plasma

creatinine (meaning better [kidney function](#)) and an improvement in general kidney function (as measured by glomerular filtration rate) which was not found in the AP group.

The authors conclude: "In diabetic subjects, the 6-week high-protein diet leads to an improvement in glucose metabolism and decrease in liver fat independently from the protein source. The high-protein diet has no [adverse effects](#) on kidney parameters, moreover the kidney function actually improved in the [plant protein](#) group."

The authors say that long-term observational studies with a much bigger cohort are now needed to confirm their findings. They are now looking at the expression of key genes involved fat metabolism, glucose metabolism, inflammation in blood cells and in adipose tissue to see if there are any diet-induced alterations and to understand the effect of the higher amino acid uptake at the molecular level.

Provided by Diabetologia

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