

Dietary changes may help postpone dialysis in patients with chronic kidney disease

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Adhering to a certain diet may help postpone the need for dialysis in patients with chronic kidney disease (CKD), according to a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology (JASN)*.

Diet is a critical component in the management of CKD, and different dietary regimens have been proposed over the years. Protein restriction seems to be especially beneficial, leading to reduced sodium intake and better blood pressure control, among other effects. Some studies indicate that adding ketoanalogues, which are nitrogen-free analogues of essential [amino acids](#), can also have favorable effects. In the human body, ketoanalogues capture nitrogen and convert it into amino acids, which are the building blocks of proteins.

Liliana Garneata, MD, PhD (Dr. Carol Davila Teaching Hospital of Nephrology, in Bucharest, Romania) and her colleagues designed a [randomized trial](#) to evaluate the effectiveness and safety of a vegetarian very low-protein [diet](#) supplemented with ketoanalogues for slowing progression of CKD. For the trial, 207 [patients](#) with CKD were randomized to a ketoanalogue-supplemented diet (0.3 g/kg vegetable proteins plus ketoanalogues per day) or continue a mixed low-protein diet (0.6 g/kg per day) for 15 months.

The team found that 5 patients with severely reduced kidney function (stage 4 or higher CKD) would need to adhere to the ketoanalogue-supplemented diet to avoid a >50% reduction in kidney function or the

need for dialysis in 1 patient.

The beneficial effects of the ketoanalogue-supplemented vegetarian very-low protein diet seemed to stem from its ability to correct metabolic complications of advanced CKD, rather than its effects on kidney function.

"The results draw attention to the role of dietary interventions, particularly of a ketoanalogue-supplemented vegetarian protein-restricted diet, as effective, safe, and feasible in selected pre-dialysis patients with CKD," said Dr. Garneata. "This type of nutritional intervention could be used in compliant patients with advanced disease and with good nutritional status to postpone dialysis initiation."

More information: "Ketoanalogue-Supplemented Vegetarian Very Low-Protein Diet and CKD Progression," [DOI: 10.1681/ASN.2015040369](https://doi.org/10.1681/ASN.2015040369).

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