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A low-carbohydrate diet may prevent end-stage renal failure in type 2 diabetes. A case report

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## Abstract

An obese patient with type 2 diabetes whose diet was changed from the recommended high-carbohydrate, low-fat type to a low-carbohydrate diet showed a significant reduction in bodyweight, improved glycemic control and a reversal of a six year long decline of renal function. The reversal of the renal function was likely caused by both improved glycemic control and elimination of the patient's obesity.

Insulin treatment in type 2 diabetes patients usually leads to weight increase which may cause further injury to the kidney. Although other

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unknown metabolic mechanisms cannot be excluded, it is likely that the obesity caused by the combination of high-carbohydrate diet and insulin in this case contributed to the patient's deteriorating kidney function. In such patients, where control of bodyweight and hyperglycemia is vital, a trial with a low-carbohydrate diet may be appropriate to avoid the risk of adding obesity-associated renal failure to already failing kidneys.

## Background

In Sweden the number of patients with type 2 diabetes accompanied by end-stage renal failure has increased by 80 % since 1991 [1]. Control