Nutritional Management of Chronic Kidney Disease

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Chronic kidney disease (CKD) affects multiple metabolic pathways. As CKD progresses, accumulated waste products from catabolism of dietary and intrinsic protein may distort taste and smell. Gastrointestinal absorption of nutrients becomes abnormal because uremia affects the microbiome and disrupts intestinal epithelia, particularly in elderly patients. Therefore, nutritional status is often disordered and protein-energy wasting is common in patients with CKD. Designing a proper diet and providing instruction about diet could be helpful for correcting acidosis, delaying protein loss, suppressing uremic bone disease, managing uremia and improving the nutritional status.

There remains uncertainty about the influence of dietary modification on progression of CKD. Nutritional interventions may or may not slow the progressive loss of glomerular filtration rate. However, diet modification reduces the accumulation of nitrogen-containing wastes, which can delay the initiation of dialysis. Given that the incidence of CKD continues to rise and that the burden of renal replacement therapy increases, dietary intervention may be considered as one of the strategies in the management of CKD.