

Nutritional therapy in chronic kidney disease

Chronic Kidney Disease (CKD) affects about 1.7 million Australians over the age of 25 according to Kidney Health Australia (www.kidney.org.au). Many doctors are unaware that nutritional therapy can not only help prevent CKD, but it can also reduce its rate of progression, decreasing patient morbidity and mortality.

Risk factors

The leading cause of CKD is diabetic nephropathy. Other risk factors include;

- Hypertension
- Cardiovascular disease
- Age over 60
- Obesity
- Smoking
- Aboriginal or Torres Strait Islander origin
- Family history of kidney disease

It is recommended that adults with one or more risk factors are screened annually for CKD by checking estimated or measured glomerular filtration rate (eGFR) and/or proteinuria. For those with established CKD or at high risk, aggressive diet and lifestyle management should be instituted. This includes weight loss, smoking cessation and close diabetes control, as appropriate.

CKD is one of the most potent risk factors for cardiovascular disease due at least in part to its effect on phosphate levels, promoting calcification and atherosclerosis.

CKD brings with it a 2 to 3 fold increased risk of cardiac death.

Nutritional management of CKD

All patients with CKD are best referred to a renal team that includes a dietitian for a comprehensive nutritional assessment. From Stage 3 (GFR 30–59 mL/min/1.73m²) dietetic reviews every 6–12 months are helpful, as are more frequent reviews for stages 4 and 5.

Increased uraemia, as eGFR declines, frequently leads to malnutrition from anorexia, nausea, xerostomia and taste changes. Reducing uraemic toxin production through dietary manipulation can help.

Contrary to popular belief, low protein diets are not indicated (KHA-CARI 2012) as the limited benefits of protein restriction are outweighed by the adverse effects of nutritional restriction. Dietary protein targets are aimed at 0.75g/kg body weight/day and above.

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Dietetic input can also assess and react if patient biochemistry is below optimum levels or above appropriate ranges e.g. sodium, phosphate and potassium. This is particularly valuable to the patient, as often they avoid some of their favourite fruits and vegetables such as bananas and potatoes (high in potassium) when there is no need as they are within ideal range. A case of 'don't fix until broken'.

The use of an Enhanced Primary Care program (EPC) or private insurance are ways to ensure CKD patients receive the benefits of optimised nutrition through a renal dietitian (see www.daa.org.au).

References on request

CKD FACTS: DIETARY INTERVENTION

- Many risk factors on their own (e.g. diabetes) require regular dietary attention.
- Contrary to popular belief, low protein diets are not indicated in CKD.
- Nutritional therapy helps prevent CKD and reduce its rate of progression.