

# Managing bone disease risk after a transplant



After a kidney transplant the risk of osteoporosis and bone fractures is high. The risk is increased if you have hyperparathyroidism. The use of prednisone impairs the absorption of calcium, important for bone strength. To reduce your risk of bone disease, it is important to eat a healthy diet which includes calcium-rich foods, to take the bone-sparing medications and vitamin D prescribed by your doctor and to make healthy lifestyle choices.

## Eat enough calcium for strong bones

Milk, yoghurt and hard cheese are rich sources of calcium, with low fat and reduced fat varieties the best choices (to minimise saturated fat intake). Bony fish, legumes, green leafy vegetables, almonds, fortified soy milk and breakfast cereals are other good calcium sources. You may be advised to take a calcium supplement if you are not able to meet your needs through diet. Discuss this with your doctor

## How much calcium do I need?

The recommended dietary intake of calcium is:

- 1000mg per day
- 1300mg for post-menopausal women.

## Factors which reduce calcium absorption

The following substances may reduce your body's ability to absorb calcium so should not be consumed at the same time as food rich in calcium or when you take your calcium supplement:

- *Oxalic acid* found in spinach, rhubarb, peanuts, beans
- *Phytic acid* found in raw beans, peas and lentils, seeds, nuts and minimally processed wholegrain and wholemeal cereals
- Some *medications*, such as cholestyramine (for treating high cholesterol) and antacids that contain aluminium can interfere with calcium absorption if taken at the same time.
- *Iron supplements* – iron will reduce the absorption of calcium.
- *Caffeine* and *guarana* (found in 'energy' drinks).

## Factors which increase calcium loss in the urine

Calcium losses increase with the amount of **salt (sodium)** and **protein** you eat.

## Lifestyle choices for good bone health

- Maintain a healthy body weight.
- Do not smoke.
- If you drink alcohol, limit to 2 standard drinks per day.
- Be as physically active as you can be. Weight-bearing activities, such as walking, dancing, weight training, housework and gardening, can help build bone density and strength.

## Where do you find calcium?

### High calcium foods

(approx. 300mg/serve)

Low fat milk	1 cup
Low fat yoghurt	200 g
Low or reduced fat cheese	30 g
Tofu	100 g
Canned fish (if bones eaten)	100 g
Fortified cereals (eg. Special K)	¾ cup

### Lower calcium foods

(approx. 100mg/serve)

Almonds	40 g
Dried figs	¼ cup
Kidney beans	1 cup
Baked beans	½ cup
Leafy greens (cooked)	1 cup
Multigrain bread	2 slices

## Tips

- Include 3 serves of low fat dairy foods or calcium-fortified soy products in your diet each day.
- Have a small handful of nuts (including almonds) each day.
- Have a salmon or sardine sandwich a few times each week.
- Choose calcium-enriched products when possible.
- Add skim milk powder to soups, smoothies and sauces.

This fact sheet is based on the *Evidence-based Guidelines for the Nutritional Management of Adult Kidney Transplant Recipients*, developed with funding from the NSW Agency for Clinical Innovation (formerly GMCT). The information has been independently reviewed by the Dietitians Association of Australia. For expert nutrition and dietary advice contact an Accredited Practising Dietitian. Visit 'Find an Accredited Practising Dietitian' at [www.daa.asn.au](http://www.daa.asn.au) or call 1800 812 942.