

KIDNEY DISEASE AND EXERCISE

PUBLIC

The main functions of the kidneys are to remove waste products and excess water from the body. They also produce important hormones that help to form red blood cells. People with kidney disease have difficulty performing these functions. Many factors can lead to developing kidney disease, such as diabetes, high blood pressure, blood vessel disease, and kidney inflammation. Physical inactivity, or lack of exercise, is a risk factor for obesity, which can contribute to the development and progression of kidney disease.

HOW DOES REGULAR EXERCISE HELP PEOPLE WITH KIDNEY DISEASE?

A review of scientific studies (1) concluded that exercise:

- improves health related quality of life;
- increases exercise capacity (the ability to perform daily tasks);
- increases muscle mass and strength/function, and reduces falls;
- decreases blood pressure;
- reduces diabetes risk and improves glucose control in people with diabetes;
- aids weight loss and managing body weight; and
- reduces anxiety and depression.

IS EXERCISE SAFE FOR PEOPLE WITH KIDNEY DISEASE?

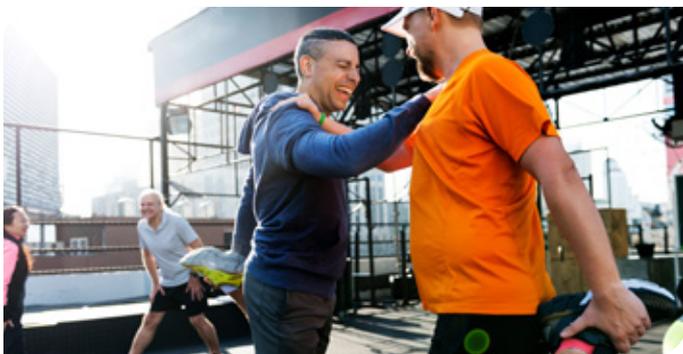
People with kidney disease can exercise safely, provided that:

- the exercise program begins slowly and progresses gradually; and
- all exercises are performed using the correct technique.

People with kidney disease may also have other associated conditions that require further special considerations (e.g. heart disease, aches and pains). It is recommended that an exercise program is prescribed by a physiotherapist or an accredited exercise physiologist who is qualified to recognise the exercise needs of people with kidney disease.

WHAT TYPE OF EXERCISE ARE RECOMMENDED?

Australian guidelines (2) recommend performing a combination of aerobic (endurance), resistance (strength) and flexibility (stretching) training for 30 minutes, 5-7 days per week. However, something is better than nothing. Start off small and build your way up at your own pace.



WHAT SHOULD AN EXERCISE PROGRAM LOOK LIKE?

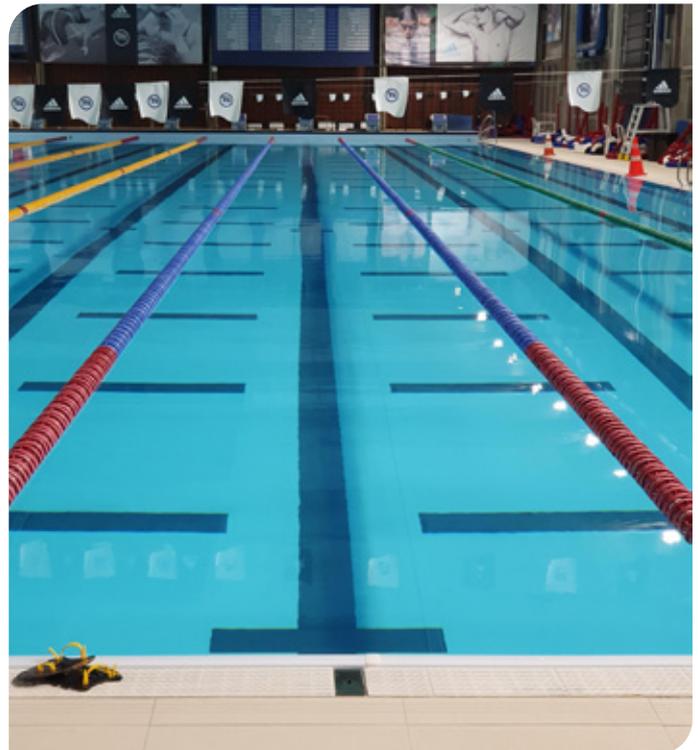
Each session should include:

- warm-up exercise before the main exercise phase, with approximately 10 minutes of light aerobic and stretching exercises. This might include a quiet walk and relaxing muscle stretches;
- main exercise phase involving activities you enjoy. This can be either **aerobic exercise**, such as: walking, jogging, stair stepping, cycling or swimming; and/or **resistance training** that includes strengthening major muscle groups like those in the legs and arms. Resistance training can include 1 set of 8-12 different exercises (12-15 repetitions of each exercise). You can even mix these exercises up into a program unique to you, or even attend a class where all the thinking and planning has been done for you!

TIP: Try exercising with a partner or in a group so that you develop a support network. This might require someone to drive you to and from a local community centre or gym.

WHAT ABOUT EXERCISE FOR PEOPLE ON DIALYSIS?

It is possible to exercise during haemodialysis e.g. by cycling on a stationary bicycle (2); however, it may be more convenient for patients to exercise on non-dialysis days, especially if you are feeling better on these days. A patient may become hypotensive (low blood pressure) after haemodialysis and should avoid exercising directly afterward. Patients receiving peritoneal dialysis may find it more comfortable to exercise if they drain fluid from the abdomen and exercise when empty or partially empty. Your physiotherapist or accredited exercise physiologist will be able to help you find the best time to exercise that suits your needs and preferences.



REFERENCES AND FURTHER INFORMATION

1. Barcellos et al., Clin Kidney J; 8(6): 753-765 2015
2. Smart NA et al. JSAMS; 16:406-411, 2013

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Exercise is Medicine Australia www.exerciseismedicine.org.au
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