

Regular exercise improves health of people with long-term kidney disease

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There are many reasons why people with chronic kidney disease (CKD) often lose fitness and have increasing difficulty performing normal daily tasks, but new research shows scientific evidence for the benefits of regular exercise for people with CKD, including those with a kidney transplant. They can improve their physical fitness, walk further, have healthier blood pressures, healthier heart rates, higher health-related quality of life scores and better nutritional characteristics compared to those who don't exercise. So concludes a systematic review published in *The Cochrane Library*.

CKD is a worldwide public health problem and a person is said to have CKD if they have damaged or poorly performing kidneys where the effects last for more than three months. There are many causes of damage, including high blood pressure, diabetes and [rheumatic diseases](#). "Their muscles tend to tire quickly, which reduces the amount of exercise they do, but this then further reduces their fitness," explains Susanne Heiwe from the Karolinska Institute in Stockholm, Sweden.

During the last 30 years there have been many studies into the way that exercise affects people with CKD, but very few evidence-based guidelines have been drawn up. To fill this gap Heiwe and her colleague, Stefan Jacobson, studied the data and results in forty-five studies that met specific inclusion criteria. Together these involved a total of 1,863 participants.

Heiwe's team discovered adults with CKD but who do not yet need

dialysis, patients on dialysis and [kidney transplant recipients](#) all benefitted from exercise, but different types of exercise produced different types of benefit.

For example, when compared with controls, people who performed supervised, high intensity, cardiovascular training for four to six months had significantly improved aerobic capacity. Other studies showed that three months of regular, high intensity [resistance training](#) or yoga, whether supervised or not, increases muscular strength and, when supervised, the [high intensity](#) resistance training also increases walking capacity over a three month period.

"More research is needed so we can discover how to set up exercise programs that get the desired outcome as efficiently as possible," says Heiwe, who believes that the Cochrane review will help renal health-care providers prescribe exercise training more often and make evidence-based choices about which type of exercise to recommend.

So far most of the studies have looked at the effects of cardiovascular exercise programmes. "We now need to know more about the effects of resistance training or mixed cardiovascular and resistance training," says Heiwe.

Provided by Wiley

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