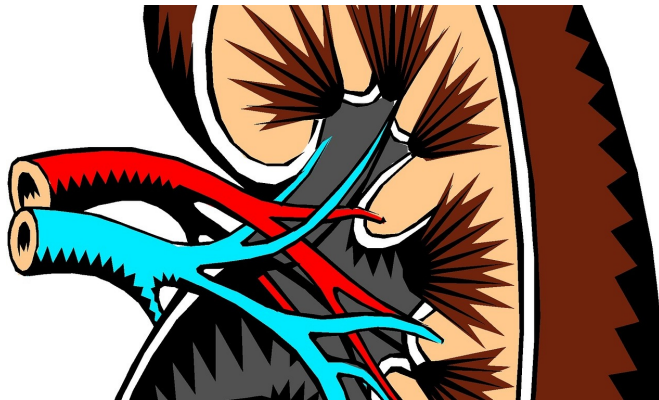


Kidney failure on the rise in Australians under 50 with type 2 diabetes

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A study of more than 1.3 million Australians with diabetes has found that kidney failure is increasing in people with type 2 diabetes aged under 50 years, leading to reduced quality of life and placing growing demand on the country's kidney dialysis and transplantation services.

The study, led by researchers from the Baker Heart and Diabetes Institute, calls for urgent attention to reduce the progression of kidney disease in Australia and highlights the importance of aggressive risk factor treatment in people with younger-onset type 2 [diabetes](#).

The registry study examined the trends in [end-stage kidney disease](#) (defined as [kidney transplantation](#) or the commencement of dialysis) within the Australian population with diabetes from 2002 to 2013.

The most concerning finding was the progressive rise in end-stage kidney disease seen in people with type 2 diabetes aged under 50, while it remained stable for those with type 1 diabetes and for type 2 diabetes aged 50-80.

This finding is also supported by other similar studies. The study, published in the *American Journal of Kidney Diseases*, also found the incidence of end-stage kidney disease was higher in men than women; those living in the most disadvantaged areas; in Indigenous people compared to non-Indigenous people and those living in remote areas compared to major cities.

End-stage kidney disease occurs when [chronic kidney disease](#)—the gradual loss of kidney function—reaches an advanced state and the kidneys are no longer able to filter wastes and excess fluids from the blood, which should be excreted in the urine. When kidneys lose these capabilities, dangerous levels of fluid, electrolytes and wastes can build up, requiring dialysis or a kidney transplant to stay alive.

In most developed countries, diabetes is now the leading cause of end-stage kidney disease and is responsible for over 40 per cent of new cases of [kidney failure](#). Patients can experience symptoms from nausea and loss of appetite, to fatigue, sleep problems and muscle cramps.

Senior author, diabetes researcher and endocrinologist at the Baker Institute, Professor Jonathan Shaw said the increasing prevalence of diabetes coupled with the rising risk of end-stage kidney disease in people with type 2 diabetes suggested the future demand for kidney dialysis and transplantation would place an enormous burden on Australia's healthcare system.

"We've known for a long time that the total number of people requiring kidney dialysis or transplantation in Australia was going up but we thought that was mainly due to increasing numbers of people with diabetes," Professor Shaw said.

"The main concern is the increasing rate in the under 50s," he said. "This is a really troubling finding but hopefully by improving [medical care](#), by

aggressively managing blood pressure and other cardiovascular risk factors in addition to blood sugar control, we can start to turn this around."

Professor Shaw said it was uncertain whether rising rates of kidney disease were a reflection of less aggressive medical therapy in Australia over the past 12 years in people with type 2 diabetes along with changes in management of [kidney](#) disease, or the result of a more aggressive form of the disease now emerging. He said more research in this area was urgently needed.

More information: Digsu N. Koye et al, Trends in Incidence of ESKD in People With Type 1 and Type 2 Diabetes in Australia, 2002-2013, *American Journal of Kidney Diseases* (2018). [DOI: 10.1053/j.ajkd.2018.10.005](#)

Provided by Baker Heart and Diabetes Institute

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