

Simple procedure lowers blood pressure in kidney disease patients

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Disrupting certain nerves in the kidneys can safely and effectively lower blood pressure in patients with chronic kidney disease (CKD) and hypertension, according to a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology (JASN)*. The findings indicate that the procedure might improve CKD patients' heart health.

Overactivity of neurons in the sympathetic—or fight or flight—nervous system is very common in patients with CKD. It not only contributes to high [blood pressure](#) and heart problems in these patients, but also to worsening of their [kidney](#) disease.

A minimally invasive procedure called renal denervation—which uses radiofrequency waves to disrupt the overactive sympathetic nerves running along the arteries in the kidneys—can lower blood pressure in individuals with hypertension and normal kidney function. Dagmara Hering, MD, Markus Schlaich, MD (Baker IDI Heart & Diabetes Institute, in Melbourne, Australia) and their colleagues looked to see if the procedure can also safely help CKD patients with hypertension.

The investigators performed renal denervation in 15 patients with hypertension and CKD. Normal blood pressure in the general population is 120/80 mmHg. Patients' average level at the start of the study was 174/91 mmHg despite taking numerous antihypertensive drugs. Patients' blood pressure readings dropped considerably at one, three, six, and 12 months after the procedure (-34/-14, -25/-11, -32/-15, and -33/-19 mmHg, respectively). Renal denervation did not worsen patients' kidney

function, indicating that it is safe even when CKD is present.

"These initial findings now open up an entirely new approach to better control blood pressure in CKD and potentially slow down progression of CKD and reduce cardiovascular risk in these [patients](#), said Dr. Schlaich.

Approximately 60 million people globally have CKD. [Heart](#) disease is the leading cause of death in these individuals.

More information: The article, entitled "Renal Denervation in Moderate to Severe CKD," will appear online on May 17, 2012, [doi: 10.1681/ASN.2011111062](https://doi.org/10.1681/ASN.2011111062)

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