

# Three-year trial of SPYRAL HTN-ON MED shows blood pressure reductions

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A team of researchers from Germany, the U.S. and Japan has found via a three-year trial that the SPYRAL HTN-ON MED renal denervation procedure reduced the blood pressure of volunteers in the trial. In their paper published in *The Lancet*, the group outlines the details of the trial and describes the improvements observed. They also presented their

findings at this year's American College of Cardiology's Annual Scientific Session.

High blood pressure, also known as [hypertension](#), is regular elevated blood pressure in the arteries. People with hypertension are at increased risk for strokes, vision loss, dementia and coronary artery disease. For that reason, patients are administered drugs to reduce their blood pressure. Unfortunately, these medications do not work for some patients, and medical scientists seek other ways to lower blood pressure. One technique is called renal denervation, where the nerves in [blood vessels](#) near the kidneys are burned away using radio wave pulses. The procedure is done by inserting a catheter into the [femoral artery](#), and pushing it in until it reaches a kidney. Prior research has suggested the technique works for some people in some cases, but its long-term efficacy (and safety) have not been well studied until now.

In this new trial, 80 volunteers, all of whom had hypertension that was not responding to conventional medications, were invited to participate. Thirty-eight of the volunteers underwent the SPYRAL HTN-ON MED renal denervation procedure, while the other 42 were given a placebo procedure and served as a control group. All of the volunteers were also given hypertension medication and monitored over the following three years.

The researchers found that after three years, those volunteers who had received the [renal denervation](#) procedure had a 18.7 mm Hg reduction in systolic ambulatory blood pressure over 24 hours compared to just 8.6 mm Hg for those in the control group. They also found a 20.9 mm Hg reduction for office [systolic blood pressure](#) compared to 12.5 mm Hg, for the control group. They describe the results as producing "a clinically meaningful and lasting blood pressure reduction."

**More information:** Felix Mahfoud et al, Long-term efficacy and

safety of renal denervation in the presence of antihypertensive drugs (SPYRAL HTN-ON MED): a randomised, sham-controlled trial, *The Lancet* (2022). [DOI: 10.1016/S0140-6736\(22\)00455-X](https://doi.org/10.1016/S0140-6736(22)00455-X)

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