**AUG 14, 2025**

# Medtronic announces 2025 American College of Cardiology / American Heart Association updated hypertension guidelines for renal denervation; procedure now recommended

Medtronic, a global leader in healthcare technology, welcomes the new American College of Cardiology (ACC)/American Heart Association (AHA) hypertension guidelines recognizing renal denervation (RDN), reinforcing its role as an adjunctive care option for patients with resistant or uncontrolled hypertension. The new hypertension guidelines were simultaneously published today in the *Journal of the American College of Cardiology*, *Circulation* and *Hypertension*.

The new ACC/AHA hypertension guidelines classify renal denervation procedures - like those using the Medtronic Symplicity Spyral™ renal denervation system - as a class IIb recommendation. These guidelines follow earlier consensus statements and guidelines from leading European countries underscoring the role of RDN as the third pillar in hypertension care, along with lifestyle modifications and medications.

“These updated hypertension guidelines are pivotal for physicians, as they validate RDN as an additional option for managing hypertension in patients who do not sufficiently respond to lifestyle modifications and pharmaceutical treatments,” said Jason Weidman, senior vice president and president of the Coronary and Renal Denervation business within the Cardiovascular Portfolio at Medtronic. “To date, we are seeing great interest from healthcare systems across the United States that are looking to offer the Symplicity blood pressure procedure. The updated renal denervation guidelines will enable greater patient access to this potentially life-changing intervention – not only in the United States, but globally as well.”

Hypertension, or high blood pressure, is the leading modifiable cause of heart attack, stroke, and death.[1] Despite available medications and lifestyle interventions, control rates remain low. In fact, hypertension affects about 1.28 billion adults worldwide and nearly 80% don't have their blood pressure under control.[1] These challenges speak to the possibility that patients may benefit from a complementary care option to better manage their blood pressure.

The new ACC/AHA hypertension guidelines outline carefully selected patients,* which include adult patients with resistant or uncontrolled hypertension where blood pressure is not at goal despite taking anti-hypertensive medications. This includes patients with systolic blood pressure of ≥ 140 mm Hg and office diastolic blood pressure of ≥ 90 mm Hg and is contraindicated in patients that are pregnant or with significant renal artery stenosis, among others. Emphasis was placed on patients with high cardiovascular risk, who remain uncontrolled and who express a preference to undergo RDN in a tailored, shared decision-making process.

The ACC/AHA hypertension guidelines are supported by the breadth of clinical evidence that has been generated with the Medtronic Symplicity Spyral RDN system. The SPYRAL HTN clinical program has the longest and largest real-world registry[2] and the largest dataset showing long-term reductions without the need for additional medication.[2-3] The Medtronic SPYRAL HTN global clinical program is the most comprehensive clinical program studying RDN in more than 5,000 patients in the presence and absence of medication, and with high baseline cardiovascular risk, and is backed by experience in over 30,000 patients globally.[4-11] The Symplicity Spyral RDN system has demonstrated sustained and durable drops in blood pressure out to three years in randomized control and real-world registry trials.[5-11]

Currently limited for investigational use in Japan, the Symplicity Spyral RDN system is approved for commercial use in the U.S. and more than 75 countries around the world.

**About Medtronic**

Bold thinking. Bolder actions. We are Medtronic. Medtronic plc, headquartered in Galway, Ireland, is the leading global healthcare technology company that boldly attacks the most challenging health problems facing humanity by searching out and finding solutions. Our Mission — to alleviate pain, restore health, and extend life — unites a global team of 95,000+ passionate people across more than 150 countries. Our technologies and therapies treat 70 health conditions and include cardiac devices, surgical robotics, insulin pumps, surgical tools, patient monitoring systems, and more. Powered by our diverse knowledge, insatiable curiosity, and desire to help all those who need it, we deliver innovative technologies that transform the lives of two people every second, every hour, every day. Expect more from us as we empower insight-driven care, experiences that put people first, and better outcomes for our world. In everything we do, we are engineering the extraordinary. For more information on Medtronic, visit www.Medtronic.com and follow on LinkedIn.

**Any forward-looking statements are subject to risks and uncertainties such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.**

Contacts:
Lauren Mueller Doran
Public Relations
+1-763-285-9053

Ryan Weispfenning
Investor Relations
+1-763-505-4626

* Jones, D.W. M.D. et al, 2025 AHA/ACC/AANP/AAPA/ABC/ACCP/ACPM/AGS/AMA/ASPC/NMA/PCNA/SGIM Guideline for the Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation.* August 2025. Table 25. https://doi.org/10.1161/CIR.0000000000001356

[1] WHO. Hypertension fact sheet. September 13, 2019. Available at: https://www.who.int/news-room/fact-sheets/detail/hypertension. Accessed February 15, 2022.

[2] Mahfoud F, Mancia G, Schmieder RE, et al. Outcomes Following Radiofrequency Renal Denervation According to Antihypertensive Medications: Subgroup Analysis of the Global SYMPLICITY Registry DEFINE. Hypertension. 2023 Aug ;80(8):1759-177.

[3] Kandzari DE et al. Long-term Safety and Efficacy of Radiofrequency Renal Denervation in the Presence of Antihypertensive Drugs: 24-Month Results from the SPYRAL HTN–ON MED Randomized Trial. TCT 2024

[4] Medtronic data on file, RDN Catheter Historical Data, Feb 2025. Data includes both Symplicity Flex and Symplicity Spyral.

[5] Kandzari DE, Townsend RR, Kario K, et al. Safety and Efficacy of Renal Denervation in Patients Taking Antihypertensive Medications. J Am Coll Cardiol. 2023 Nov 7;82(19):1809-1823.

[6] Böhm M, Kario K, Kandzari DE, et al. Efficacy of catheter-based renal denervation in the absence of antihypertensive medications (SPYRAL HTN-OFF MED Pivotal): a multicentre, randomised, sham-controlled trial. Lancet. 2020 May 2;395(10234):1444-1451.

[7] Kario K, Ogawa H, Okumura K, et al. SYMPLICITY HTN-Japan - first randomized controlled trial of catheter-based renal denervation in asian patients -. Circ J. 2015;79(6):1222–1229.

[8] Bhatt DL, Kandzari DE, O'Neill WW, et al. A controlled trial renal denervation for resistant hypertension. N Engl J Med. April 10, 2014;370(15):1393–1401.

[9] Esler MD, Böhm M, Sievert H, et al. Catheterbased renal denervation for treatment of patients with treatment-resistant hypertension: 36 month results from the SYMPLICITY HTN-2 randomized clinical trial. Eur Heart J. 2014;35(26):1752–1759.

[10] Krum H, Schlaich MP, Sobotka PA, et al. Percutaneous renal denervation in patients with treatment-resistant hypertension: final 3-year report of the Symplicity HTN-1 study. Lancet. 2014;383(9917):622–629.

[11] Mahfoud F, Schlaich M, Schmieder RE, et al. Long-term outcomes in ESC guideline-recommended patients for RDN from Global SYMPLICITY Registry DEFINE. EuroPCR 2025.

https://news.medtronic.com/Medtronic-announces-2025-American-College-of-Cardiology-American-Heart-Association-updated-hypertension-guidelines-for-renal-denervation-procedure-now-recommended