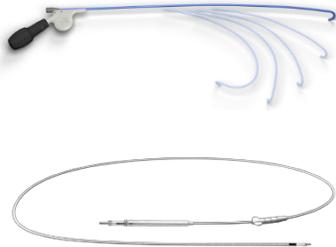


His-bundle Pacing Backgrounder

<p style="text-align: center;">Disease Overview: Bradycardia</p>	<p>Bradycardia is a condition characterized by a slow or irregular heart rhythm, usually fewer than 60 beats per minute (normal heart rate is 60 – 100 bpm). At this rate, the heart is unable to pump enough oxygen-rich blood to the body during normal activity or exercise, causing dizziness, fatigue, shortness of breath or fainting spells. Pacemakers, the most common way to treat bradycardia, help restore the heart's normal rhythm and relieve symptoms by sending electrical impulses to the heart to increase the heart rate.</p>
<p style="text-align: center;">His-bundle Pacing Background</p>	<p>The His bundle is a collection of specialized conduction fibers in the heart that transmit electrical impulses from the AV node through the Purkinje fibers to the ventricles to naturally synchronize the heart's contraction. The His bundle was named after Swiss cardiologist Wilhelm His Jr., who discovered it in 1893.</p> <p>In recent years, the His bundle has been increasingly explored as an alternate location within the heart to position a pacemaker lead (wire) through which to deliver electrical impulses, in lieu of the right ventricle. Clinical studies have shown that delivering electrical pacing via the bundle of His instead of the right ventricle may help improve and preserve left ventricular heart function¹⁻⁴ and reduce heart failure-related hospitalizations in patients who require frequent ventricular pacing therapy.⁵</p>
<p style="text-align: center;">His-bundle Pacing Portfolio</p>	<p>Medtronic has developed a cardiac pacing lead and multiple lead delivery catheters designed specifically for use in His-bundle pacemaker implantation procedures:</p> <ul style="list-style-type: none"> ▪ SelectSite™ C304-HIS deflectable catheter system, for which Medtronic announced U.S. FDA approval in April 2019 ▪ SelectSecure™ MRI SureScan™ Model 3830 cardiac pacing lead (approved by the FDA for HBP in 2018) <ul style="list-style-type: none"> ➢ The only pacing lead on the U.S. market approved for His-bundle pacing ➢ Approved for use with all Medtronic single and dual chamber pacemakers <p>The Select Site C304-HIS deflectable catheter system features a deflectable, out-of-plane curve to reach the bundle of His and is designed to enable enhanced range maneuverability, fixation and implant success for a wider range of patient anatomies. Its adjustable form helps accommodate and secure the pacing lead in more challenging anatomies, including patients with a large right atrium.</p> <div style="text-align: right; margin-top: 10px;">  </div>

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References

- ¹ Deshmukh P, et al. *Circulation*. 2000;101:869-877.
- ² Catanzariti D, et al. *Europace*. 2013;15:546-553.
- ³ Abdelrahman M, et al. *Journal of the American College of Cardiology*. 2018;71:2319.30
- ⁴ Vijayaraman P, et al. *Heart Rhythm*. 2018;15:696-702.
- ⁵ Sharma PS, et al. *Heart Rhythm*. 2015;12:305-312.