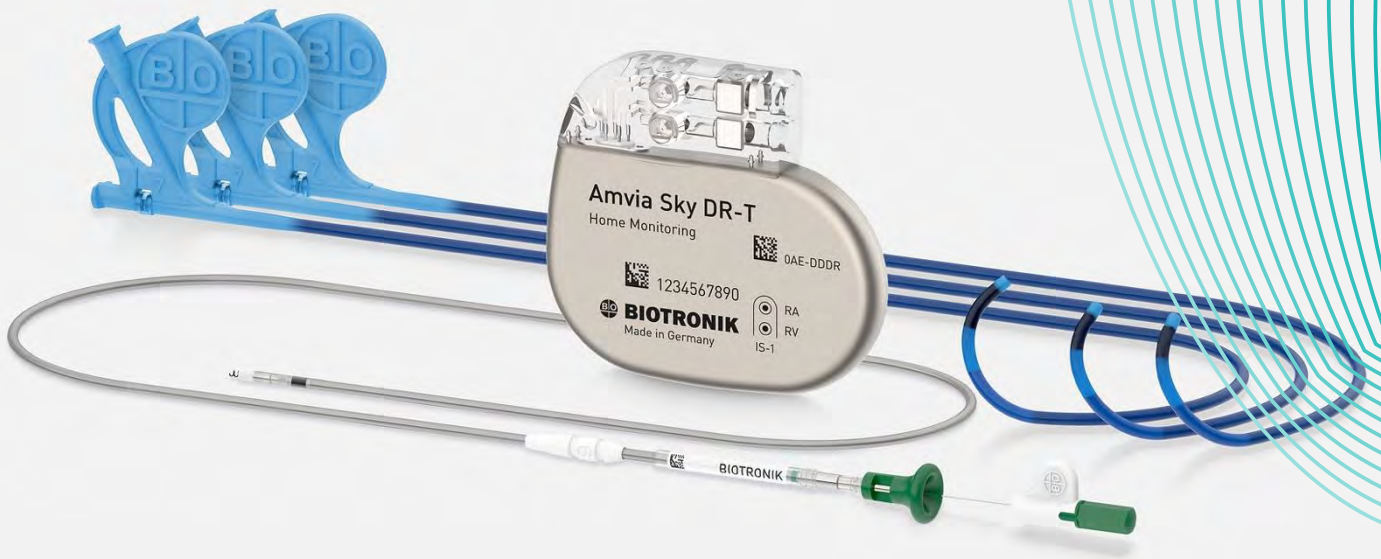

BIOTRONIK Conduction System Pacing Solution

Jane Moses

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excellence for life

1. BIOTRONIK Amvia technical manual; Medtronic Azure XT DR MRI SureScan™ manual; Boston Scientific Accolade MRI™ technical manual; Abbott Assurity MRI™ user's manual; MicroPort Alizea™ implant manual.
2. De Pooter J, Bulava A, Gras D, et al. Utility of a guiding catheter for conduction system pacing. An early multicenter experience. Heart Rhythm O2. 2023; 288(24): 3115.
3. Jastrzębski M, Kiełbasa G, Cano O, et al. Left bundle branch area pacing outcomes: the multicentre European MELOS study. Eur Heart J. 2022; 43(40): 4161-4173.

Disclaimer: BIOTRONIK CSP tools are not currently approved for conduction system pacing in the United States. Content not intended for US healthcare providers.

BIOTRONIK CSP System Enables More Controlled Handling[1] and Straightforward LBBAP Patient Follow-ups

**The broad range of Selectr
excellent maneuverability
stability.[1]**

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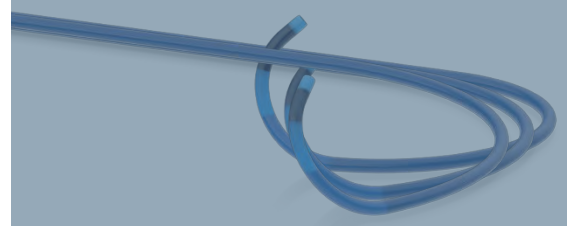
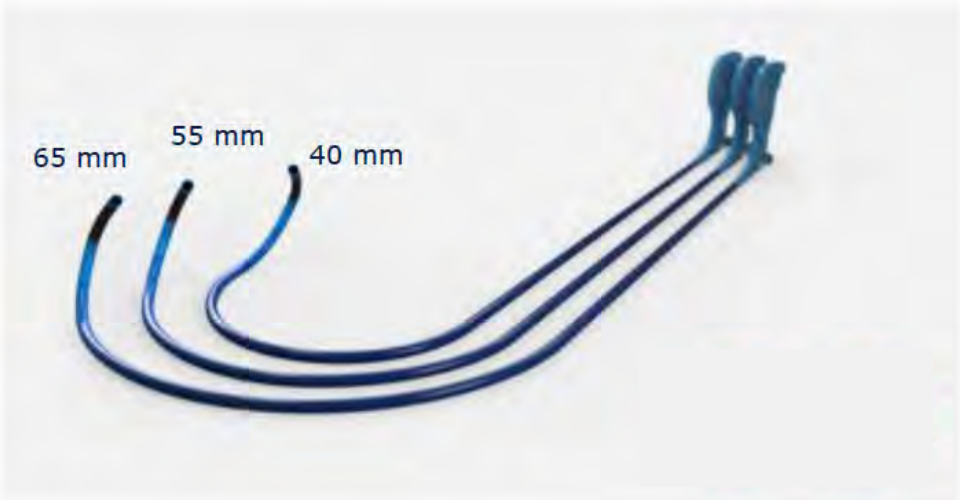
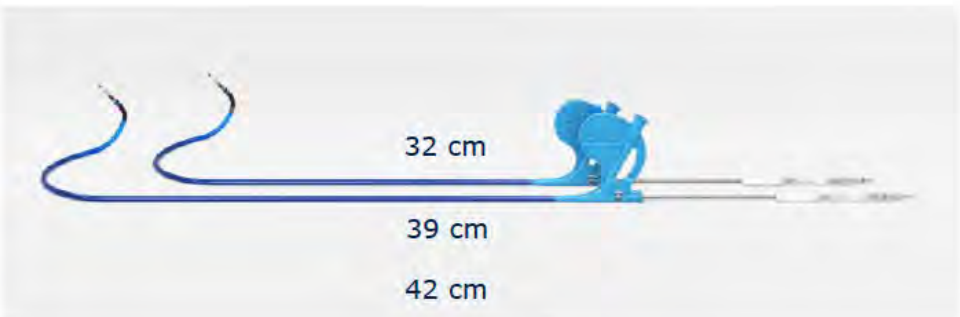


Selectra 3D Comes in Nine Options To Accommodate Different Patient Anatomies

Three Curves and Three Lengths





Catheter	Selectra 3D
Shaft Diameter, Inner	2.4 mm (7.3 F)
Shaft Diameter, Outer	2.9 mm (8.7 F)
Working Length	32 cm, 39 cm, 42 cm
Proximal Radius	40 mm 55 mm 65 mm

Available catheters

Selectra 3D-40-32 (for the approach from the right side)
Selectra 3D-40-39
Selectra 3D-40-42
Selectra 3D-55-32 (for the approach from the right side)
Selectra 3D-55-39
Selectra 3D-55-42
Selectra 3D-65-32 (for the approach from the right side)
Selectra 3D-65-39
Selectra 3D-65-42

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BIOTRONIK CSP System Enables More Controlled Handling[1] and Straightforward LBBAP Patient Follow-ups

The broad range of Sel
excellent maneuverabi
stability.[1]

The stylet support of S
stiffness and better tor

2. Burri H, Jastrzebski M, Cano Ó, et al. EHRA clinical consensus statement on conduction system pacing implantation: endorsed by the Asia Pacific Heart Rhythm Society (APHRS), Canadian Heart Rhythm Society (CHRS), and Latin American Heart Rhythm Society (LAHRS). Europace. 2023; 25(4): 1208-1236.
3. Data on file.

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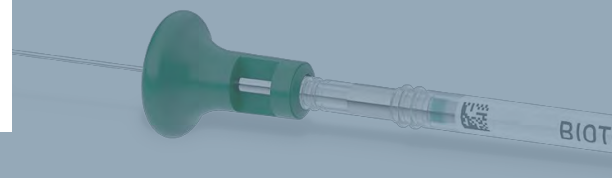

More Options to Customize Implantation[1]

Stylet supported lead available in 2 lengths with extendable/retractable screw

LBBAP Approved*

Various stylet choices

Continuous electrical measurements

Extendable/ retractable screw

Stable distal area due to stylet

	Solia S
Stylet Support	yes
Steroid	Steroid collar Dexamet
Lead Body Diameter	1.8 mm (5.6 F)
Fixation	Extendable/Retractabl
Length	53 cm, 60 cm
Helix Length	1.8 mm
MRI Conditional	1.5T and 3.0T Full-Bod
Polarity	Bipolar
Tip-to-Ring Spacing	10 mm
Connector	IS-1

1. Compared to lumenless leads that do not offer a stylet support.

* CE approval; Excluding Solia S 45cm length

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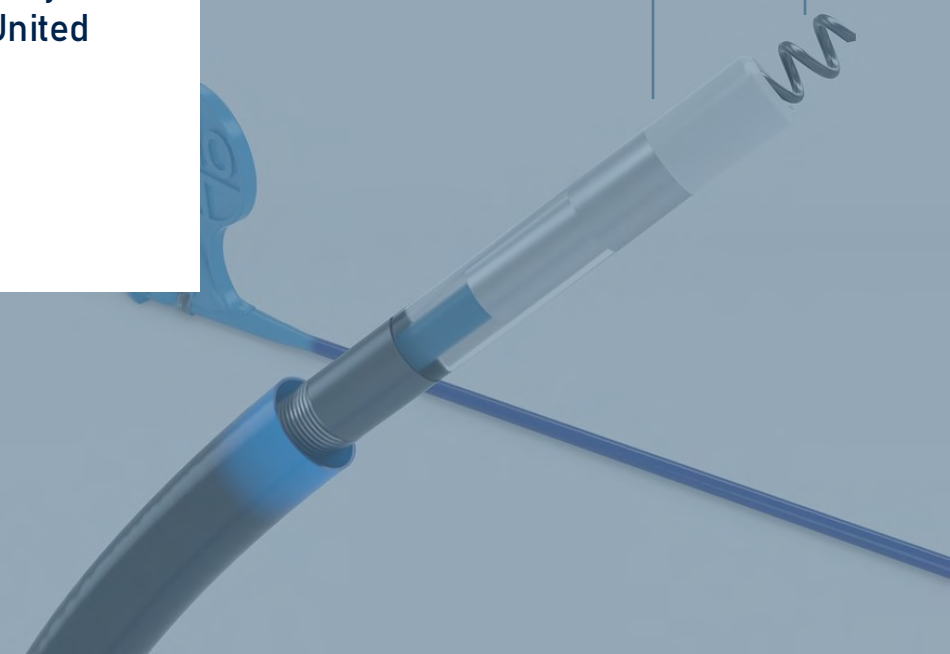

Easy and Fast Approach to LBBAP With Stylet–Driv

- The stylet
  better torq
- Precise tip
  approach[4]
- The Solia S
  rotating th
- Less hassl
  measurem
- ~20% shor
  compared
- Stylet guid
  fixating the

1. Excluding Solia S 45cm length
2. Burri H, Jastrzebski M, Cano Ó, et al. EHRA clinical consensus statement on conduction system pacing implantation: endorsed by the Asia Pacific Heart Rhythm Society (APHRS), Canadian Heart Rhythm Society (CHRS), and Latin American Heart Rhythm Society (LAHRS). Europace. 2023; 25(4): 1208-1236.
3. Data on file.
4. Data on file.
5. BIOTRONIK Solia S Technical Manual.
6. Gillis K, O'Neill L, Wielandts JY, Hilfiker G, Vlase A, Knecht S, Duytschaever M, Tavernier R, le Polain de Waroux JB. Left bundle branch area pacing guided by continuous uninterrupted monitoring of unipolar pacing characteristics. J Cardiovasc Electrophysiol. 2022 Feb;33(2):299-307.
7. Sritharan A, Kozhuharov N, Masson N, Bakelants E, Valiton V, Burri H. Procedural outcome and follow-up of stylet-driven leads compared with lumenless leads for left bundle branch area pacing. Europace. 2023; 25(10): euad295.

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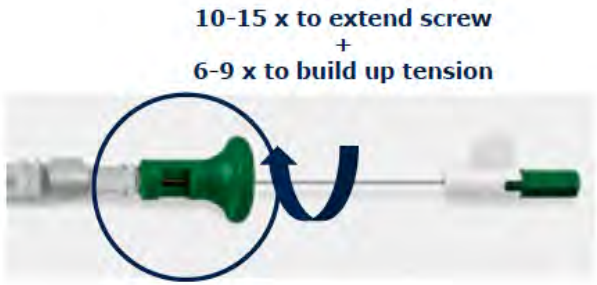
Our recommendation to use Solia Lead Delivered via Selectra 3D

The most important new handling steps are:

1



- Fully extend screw and build up tension on the inner coil before fixating the lead

2

- Turn the whole lead body 6-9 times to fixate the lead

3

- Remove green stylet guide gently

4

- Retract stylet about 10 cm and then slightly withdraw catheter before slitting the catheter

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BIOTRONIK CSP System Enables More Controlled Handling[1] and Straightforward LBBAP Patient Follow-ups

4. Byeon K, Kim HR, Park SJ, Park YJ, Choi JH, Kim JY, Park KM, On YK, Kim JS. Initial Experience with Left Bundle Branch Area Pacing with Conventional Stylet-Driven Extendable Screw-In Leads and New Pre-Shaped Delivery Sheaths. J Clin Med. 2022 Apr 28;11(9):2483. doi: 10.3390/jcm11092483.

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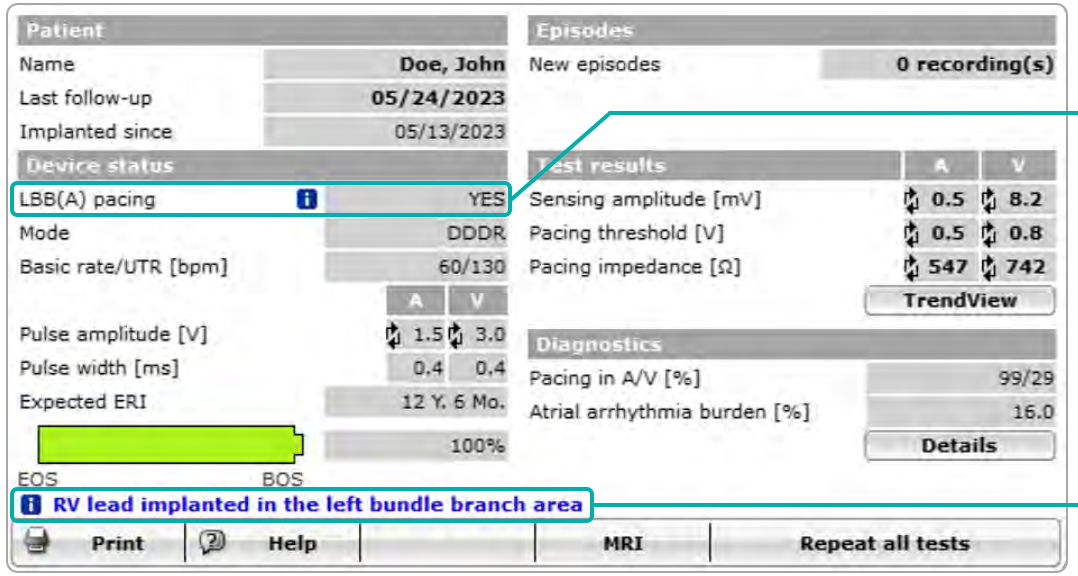
Patient Easily Identified as Having an LBBAP System



Easy LBBAP lead parameter: YES/NO stored in the device

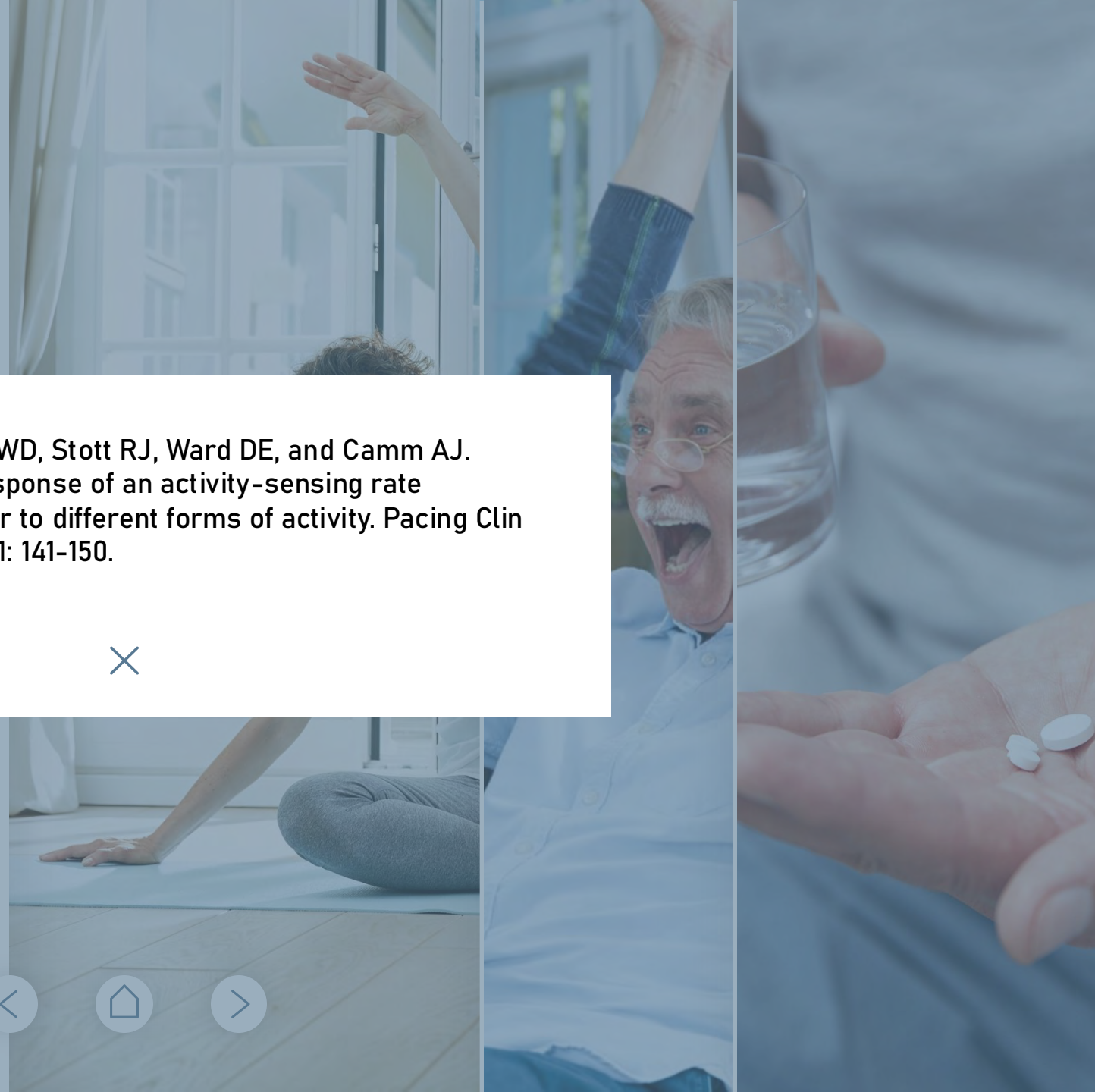
Clear message displayed, when parameter is set

Patients Require Individual Pacing Rate Adaptation During Physiologic Changes.

Chronotropically incompetent patients struggle to adapt to changes in metabolic demand during

- ✓ Physical activity
- ✓ Emotional stress
- ✓ Pharmaceutical influ

Accelerometers, may sometimes respond in ways that can be disproportionate or insufficient.[1]

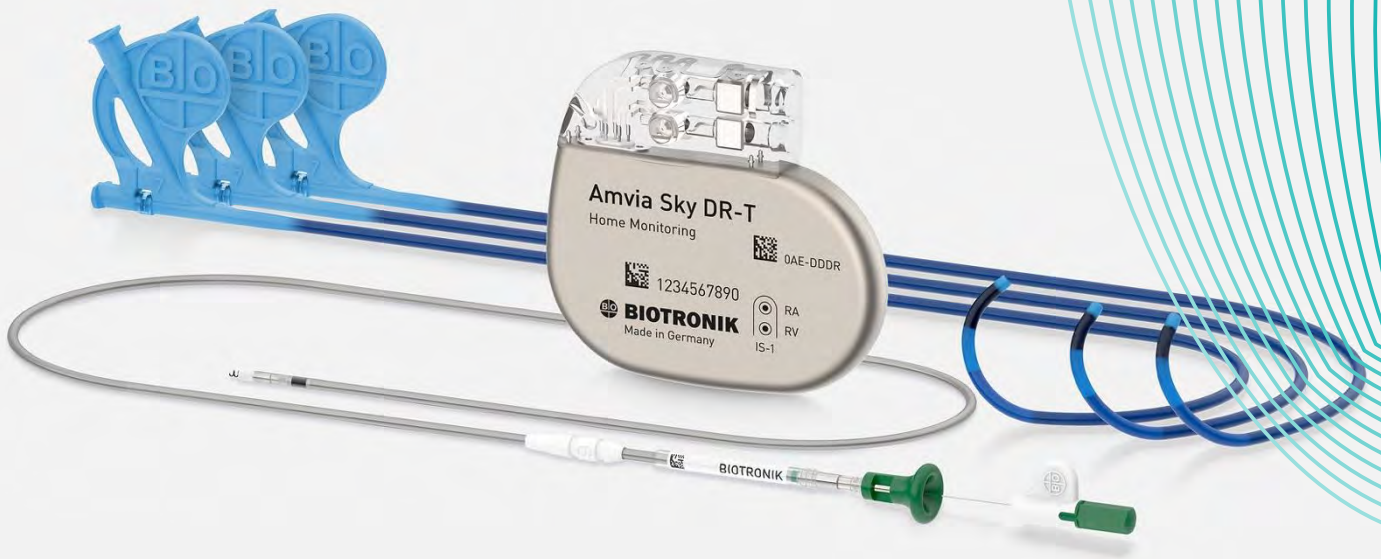


1. Lau CP, Mehta D, Toff WD, Stott RJ, Ward DE, and Camm AJ. Limitations of rate response of an activity-sensing rate responsive pacemaker to different forms of activity. Pacing Clin Electrophysiol. 1988; 11: 141-150.

How Does it Work?

CLS uses the autonomic nervous system to adjust the pacing rate for improved cardiac output.

- Monitors the patient‘s myocardial contraction dynamics (Inotropy)
- Detects metabolic demand via impedance changes
- Automatically translates this demand into an adequate pacing rate
- Adapts with every heartbeat



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Complete system.

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