PRECISE PLACEMENT. SECURE FIXATION.

Attain Stability™ Quad
MRI SureScan™ Active Fixation LV Lead

ACTIVE FIXATION + QUADRIPOLAR TECHNOLOGY
QUADRIPOLAR LEADS GIVE YOU OPTIONS.

Passive Fixation + Quadripolar Technology

- Provides ability to pace from alternate locations
- But often requires wedging for stability, limiting lead placement

Attain Stability™ Quad

PRECISE PLACEMENT. SECURE FIXATION.

Side Helix
Unique active-fixation mechanism integrates a mechanical stop and adhesive backfill for prevention of over-rotation and vein tissue pinching.
ATTAIN STABILITY QUAD GIVES YOU MORE.

Active Fixation + Quadripolar Technology

Precisely and securely place the lead without the need to wedge:

- Flexibility in lead placement
- Promotes nonapical pacing\(^1\)
- Reduced risk for lead dislodgement\(^1\)

One Lead for Multiple Anatomies

- Short bipolar spacing to reduce phrenic nerve stimulation\(^2\)\(^-\)\(^4\)
- Steroid on all electrodes to improve thresholds and longevity\(^5\)
- Enables multiple point pacing (MPP)
- Approved for 1.5T and 3T full body MRI scanning

Small Vessels

Large Vessels
PROMOTES NONAPICAL PACING

- 90.6% tip electrode location in basal or mid-LV segments
- 97.3% lead placement at prespecified target location

Benefits of Nonapical Pacing: MADIT-CRT Clinical Study

Improved Survival of Nonapical Pacing

<table>
<thead>
<tr>
<th>Years from Randomization</th>
<th>Patients at Risk</th>
<th>Unadjusted P = 0.014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nonapical 682</td>
<td>623 (0.06)</td>
</tr>
<tr>
<td></td>
<td>Apical 110</td>
<td>92 (0.11)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>414 (0.11)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>186 (0.15)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>61 (0.20)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 (0.27)</td>
</tr>
</tbody>
</table>

Targeted vessel for LV lead placement.

Final position of Attain Stability Quad with helix (arrow) in basal region.
REDUCED RISK FOR LEAD DISLODGEMENT

Active fixation LV lead allows flexibility in lead placement and reduced risk for lead dislodgement.

- 81% reduction in LV lead dislodgement during catheter slitting\(^1\)\(^,\)\(^7\)
- 65% reduction in LV lead dislodgement at 6 months post-implant\(^1\)\(^,\)\(^7\)
- May reduce the need for repeat procedures due to LV lead dislodgements\(^1\)
- May enable earlier patient discharge due to a reduced risk for lead dislodgement\(^8\)

Dislodgement during Slitting

\[ P = 0.0147 \]

\[
\begin{array}{c|c}
\text{Dislodgement} & \text{Attain™ Performa™} & \text{Attain Stability Quad} \\
\text{2.4%} & (12/499) & (2/440) \\
\text{0.45%} & \text{\textbf{-81%}} & \\
\end{array}
\]

Dislodgement (6 months)

\[ P = \text{ns} \]

\[
\begin{array}{c|c}
\text{Dislodgement} & \text{Attain Performa} & \text{Attain Stability Quad} \\
\text{2.0%} & (10/499) & (3/440) \\
\text{0.7%} & \text{\textbf{-65%}} & \\
\end{array}
\]
SIMPLE IMPLANT PROCEDURE

1. **Insert the lead**
   Advance the lead to the targeted pacing location.

2. **Fixate the lead**
   SPIN and HOLD the lead several times in a clockwise direction until torque buildup is felt.

3. **Confirm helix fixation**
   Perform both the Push Test and Pull Test.

4. **Reposition the lead**
   The lead unscrews when repositioning is required.

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**Designed with Extraction in Mind**

The helix straightens and elongates with a median pull force of 1 pound, enabling removal from the vein similar to passive fixation leads.⁹
HELIX SAFETY

- Vessel cross-sectional analysis indicates a 1 mm average distance between a vein and the nearest artery.\(^{10}\) This distance was taken into account when designing the side helix.

- The helix is positioned 0.25 mm away from the lead body — creating 4x safety margin (between vein & artery).

- No LV lead perforations reported within 6 months of follow-up.\(^{1}\)

Built for MRI

With Attain Stability Quad, patients have access to 1.5T and 3T full body scanning\(^{11}\)

- Our SureScan™ devices and leads work in any combination.\(^{1}\)

- Scanning conditions are simple: no MRI exclusion zone, no patient height restriction, no MRI duration restriction.\(^{11}\)

\(^{1}\)When MR conditions for use are met.

\(^{1}\)For a complete list of approved device and lead combinations, please visit mrisurescan.com.
**LV Lead Comparison**

<table>
<thead>
<tr>
<th>Attain™ Performa™</th>
<th>Attain Stability™ Quad</th>
<th>Attain Ability™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Diameter</td>
<td>5.3 Fr</td>
<td>4.4 Fr</td>
</tr>
<tr>
<td>Electrode Diameter</td>
<td>5.1 Fr</td>
<td>5.1 Fr</td>
</tr>
<tr>
<td>Length</td>
<td>78 cm and 88 cm</td>
<td>78 cm and 88 cm</td>
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</tbody>
</table>

### References

### Brief Statement
**Attain Stability™ Quad MRI SureScan™ Lead**

**Indications:** The Attain Stability Quad MRI SureScan 4798 steroid eluting, quadripolar electrode. IS4 transvenous lead is indicated for chronic pacing in the left ventricle via the cardiac vein, when used with a compatible Medtronic Cardiac Resynchronization Therapy (CRT) system. Extended bipolar pacing is available using this lead in combination with a compatible cardioverter-defibrillator CRT system and RV defibrillation lead. **Contraindications:** The Attain Stability Quad lead is contraindicated for the following: Coronary vasculature — these leads are contraindicated for patients with coronary venous vasculature that is inadequate for lead placement, as indicated by venogram. Steroid use — this lead is contraindicated in patients for whom a single dose of 288 µg of dexamethasone acetate may be contraindicated.

**Warnings and Precautions:** Diathermy is a treatment that involves the therapeutic heating of body tissues. Diathermy treatments include high-frequency, short wave, microwave, and therapeutic ultrasound. Except for therapeutic ultrasound, do not use diathermy treatments on cardiac device patients. Diathermy treatments may result in serious injury or damage to an implanted device and lead system. Therapeutic ultrasound (including physiotherapy, high-intensity therapeutic ultrasound, and high-intensity focused ultrasound) is the use of ultrasound at higher energies than diagnostic ultrasound to bring heat or agitation into the body. Therapeutic ultrasound is acceptable if treatment is performed with a minimum separation distance of 15 cm (6 in) between the applicator and the implanted device and lead system, as long as the ultrasonic beam is pointing away from the device and lead system. A complete SureScan system is required for use in the MRI environment. Before performing an MRI scan, refer to the MRI Technical Manual for important information about procedures and MRI-specific warnings and precautions. Patients and their implanted systems must be screened to meet the following requirements for MRI: no implanted lead extenders, lead adaptors, or abandoned leads; no broken leads or leads with intermittent electrical contact as confirmed by lead impedance history; the SureScan system is implanted in the left or right pectoral region; the SureScan device is operating within the projected service life; no diaphragmatic stimulation at a pacing output of 5.0 V and at a pulse width of 1.0 ms in patients whose device will be programmed to an asynchronous pacing mode when MRI SureScan is programmed to On. For pacemaker-dependent patients, it is not recommended to perform an MRI scan if the right ventricular (RV) lead pacing capture threshold is greater than 2.0 V at 0.4 ms. A higher pacing capture threshold may indicate an issue with the implanted lead. Patients may be scanned using a horizontal field, cylindrical bore, clinical 1.5 T or 3 T MRI system for hydrogen proton imaging, maximum spatial gradient ≤ 20 T/m, and maximum gradient slew rate performance per axis ≤ 200 T/m/s. 1.5 T scanners must be operated in Normal Operating Mode (whole body averaged specific absorption rate (SAR) ≤ 2.0 W/kg, head SAR ≤ 3.2 W/kg). 3 T scanners must be operated in First Level Controlled Operating Mode or Normal Operating Mode. Biso must be ≤ 2.8 µT when the isocenter (center of the bore) isocenter is at or superior to the C7 vertebra. Scans can be performed without Biso restriction when the isocenter is at or superior to the C7 vertebra. Potential Adverse Events: Potential adverse events related to the use of transvenous leads include, but are not limited to, the following patient-related conditions: air embolism; avulsion or other damage to the endocardium, valve, or vein (particularly in fragile hearts); cardiac dissection; cardiac perforation; cardiac tamponade; coronary sinus dissection; death; endocarditis; erosion through the skin; extracardiac muscle or nerve stimulation; fibrillation or other arrhythmias; heart block; heart wall or vein wall rupture; hematoma/seroma; infection; lead conductors fracture or insulation failure; lead dislodgement; myocardial irritability; myopotential sensitivity; pericardial effusion; pericardial rub; pericarditis; pneumothorax; rejection phenomena (local tissue reaction, fibrotic tissue formation); threshold elevation or exit block; thrombosis; thrombotic embolism. Potential MRI complications for the SureScan system include, but are not limited to, lead electrode heating and tissue damage resulting in loss of sensing or capture or both, or induced currents on leads resulting in continuous capture. VTVF, and/or hemodynamic collapse; spontaneous tachyarrhythmia occurring during the scan that is not detected and treated because tachyarrhythmia detection is suspended while MRI SureScan is programmed to On; potential for VTVF induction when the patient is programmed to an asynchronous pacing mode during MRI SureScan; device heating resulting in tissue damage in the implant pocket or patient discomfort or both, or damage to the functionality or mechanical integrity of the device resulting in the inability of the device to communicate with the programmer. See the MRI Technical Manual before performing an MRI scan and Device Manual for detailed information regarding the implant procedure, indications, contraindications, warnings, precautions, and potential complications/adverse events. For further information, please call Medtronic at 1-800-328-2518 and/or consult the Medtronic website at medtronic.com or mriusescan.com.

**Caution:** Federal law (USA) restricts this device to sale by or on the order of a physician.