Together, we’re helping patients be people.
CPVT Device Technology.
Catecholamine-Induced Polymorphic Ventricular Tachycardia (CPVT)

CPVT is a rare inherited arrhythmia syndrome that manifests as syncope occurring during exercise or acute emotion in individuals with Structurally normal Hearts.

The mean age of onset of symptoms for the patient is between age seven and twelve years.

If untreated, CPVT is highly lethal and Sudden Death may be the first manifestation of the disease.

CPVT is treated with immediate defibrillation.
Entirely subcutaneous system

Does not require leads in the heart, leaving the vasculature untouched

Placed using anatomical landmarks, reducing the need for Fluoroscopy at implant

Sophisticated algorithms provide effective detection and treatment of VT/VF$^{1,2}$

New and unique solution for a broad range of patients at risk for Sudden Cardiac Arrest (SCA)


80J (delivered) biphasic shock
   Up to 5 shocks per episode

30 seconds post-shock demand-based pacing at 50bpm

Single electrode connection

Full featured episode storage
   Up to 128 seconds of ECG storage per episode and storage of up to 45 episodes.
Three sensing vectors provide different perspectives of patient’s cardiac rhythm for optimal sensing and discrimination.

- **Primary**: Ring to can
- **Secondary**: Tip to Can
- **Alternate**: Tip to Ring

The S-ICD™ System automatically identifies the best signal for rhythm detection.
The S-ICD can is used as an electrode for both Shocking and Pacing therapies and also as an integral part of the Sensing circuitry.
EMBLEM™ S-ICD System Components

**EMBLEM™ S-ICD Pulse Generator**
- Volume: 59.5 cc
- Weight: 130 grams
- Thickness: 12.7 mm
- Energy: 80J (delivered)
- Waveform: Biphasic

**EMBLEM™ S-ICD Subcutaneous Electrode**
- 45 cm length
- 8 cm, 9 Fr shocking coil
- Two sensing electrodes

**EMBLEM™ S-ICD Subcutaneous Electrode Insertion Tool (EIT)**
- Single use tool
- 36 cm total length
- 3 mm shaft diameter

**EMBLEM™ S-ICD Programmer**
- AC Powered/Battery backup
- Wanded RF telemetry
- Wireless printing
- Micro SD Card

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**S-ICD™ Electrode: Designed for Durability**

**Less Biomechanical Stress**
Located outside of the heart and ribcage, the EMBLEM S-ICD subcutaneous electrode is exposed to significantly less biomechanical stress than traditional transvenous leads:
- Not exposed to the dynamics and force of cardiac motion (~100,000 flexes/day)
- Not exposed to clavicular crush forces

**Unique Construction**
The subcutaneous electrode is uniquely designed to minimize the risk of insulation abrasion/breach and conductor fractures:
- Multistrand cable-core design provides exceptional strength
- Durable polyurethane insulator
- No hollow core, no inner coils
- Designed to withstand cardiopulmonary resuscitation (CPR) forces

**Specifications**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>45 cm</td>
</tr>
<tr>
<td>Distal tip size (Diameter)</td>
<td>12 Fr/4 mm</td>
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<tr>
<td>Coil size (Diameter)</td>
<td>9 Fr/3 mm</td>
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<tr>
<td>Sensing location Distal</td>
<td>Distal electrode tip</td>
</tr>
<tr>
<td></td>
<td>120 mm from tip</td>
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<tr>
<td>Sensing location Proximal</td>
<td>Suture Sleeve</td>
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<tr>
<td></td>
<td>Polyurethane</td>
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<td>MP35N</td>
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<tr>
<td></td>
<td>MP35N</td>
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<tr>
<td></td>
<td>Silicone</td>
</tr>
</tbody>
</table>

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Thank You

Questions ?