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Engineering the extraordinary

Heartwires updates

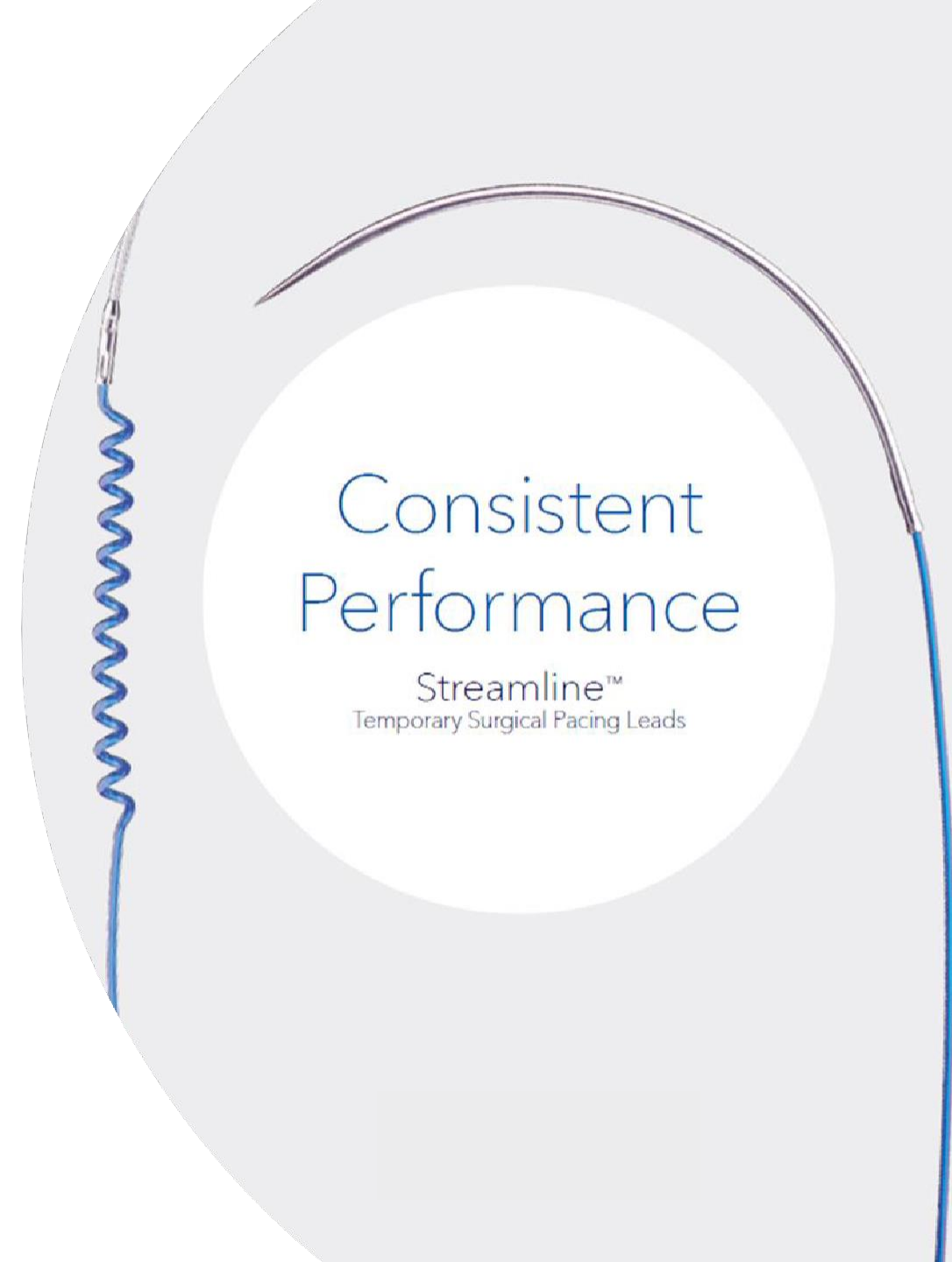
Flexon ⇔ CS Heartwires



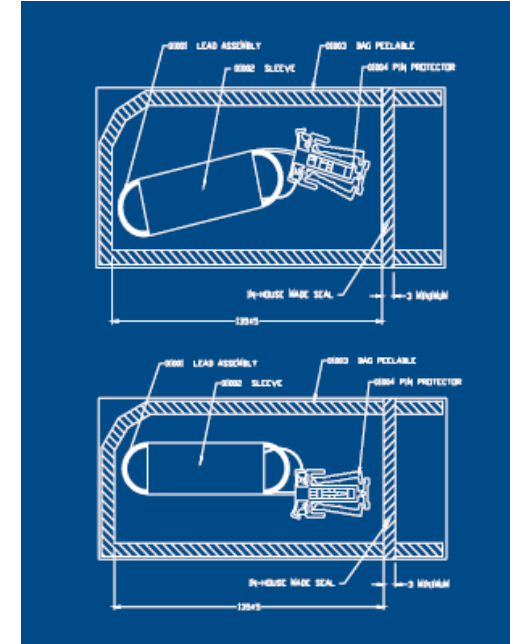
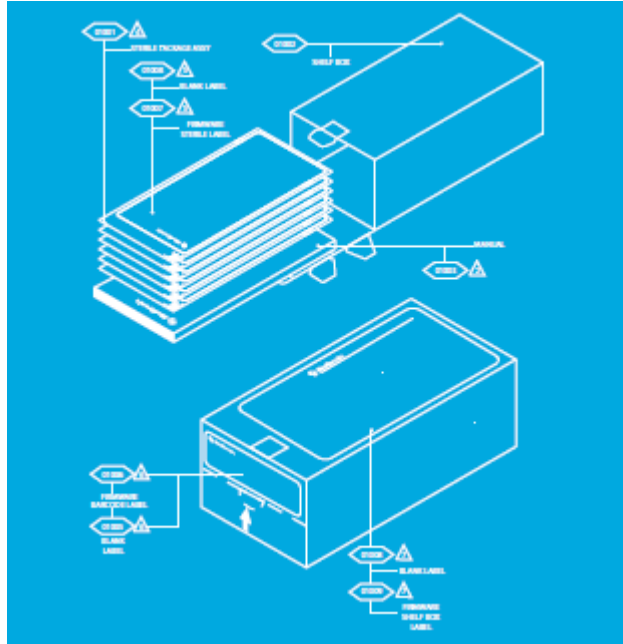
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What is Streamline ?



Differences in Shape - Technology

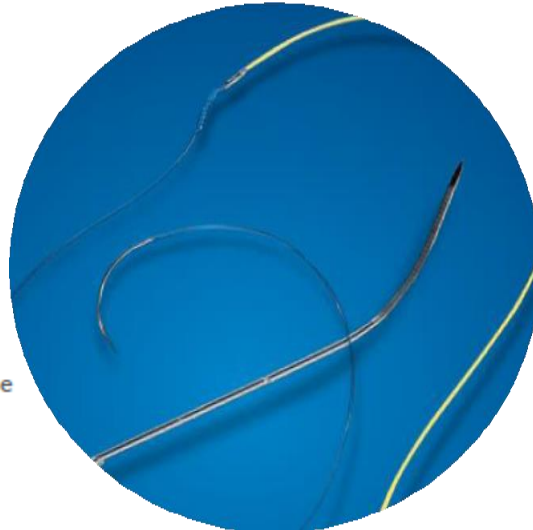


Product Description	Order #	Quantity
Premium 6500 — Unipolar, Myocardial	6500	12
Bipolar Coaxial 6495 — Bipolar, Myocardial	6495	6
Pediatric 6491 — Unipolar, Pediatric	6491	12
Atrial 6492 — Unipolar, Atrial	6492	12
Convenience 6494 — Unipolar, Myocardial	6494	12 pairs

Differences in Shape - Technology

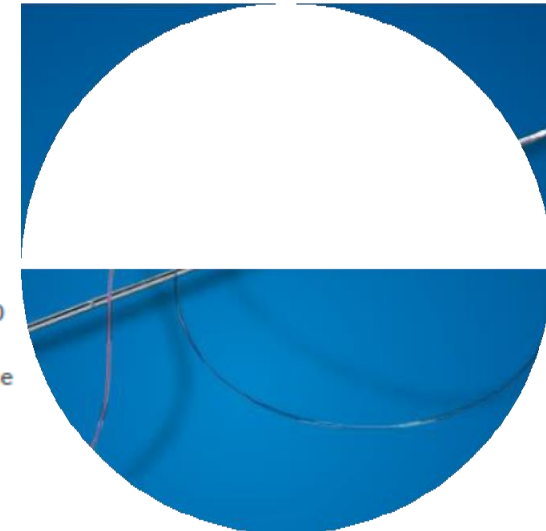
Pediatric 6491 Unipolar Pediatric Temporary Pacing Lead

- Smaller fixation coil well suited for thinner pediatric tissue
- Curved chest needle for greater leverage through small chest cavity
- Discrete electrode for consistent sensing and pacing
- Connector pin sleeves insulate connector pins while not in use



Atrial 6492 Unipolar Temporary Atrial Pacing Lead

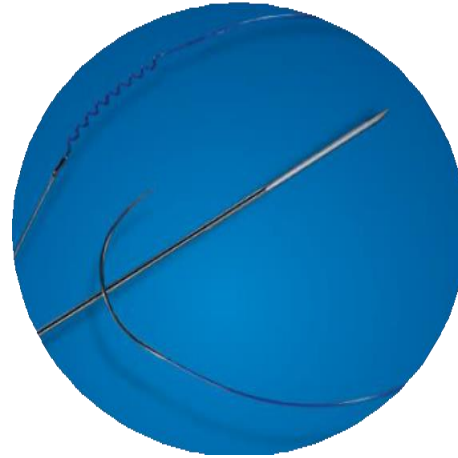
- Smaller fixation coil well suited for thinner atrial tissue
- Discrete electrode for consistent sensing and pacing
- Straight breakaway chest needle diameter reduced from 1.00 mm to 0.86 mm minimizes trauma during lead insertion
- Connector pin sleeves insulate connector pins while not in use



Differences in Shape - Technology - Pricing

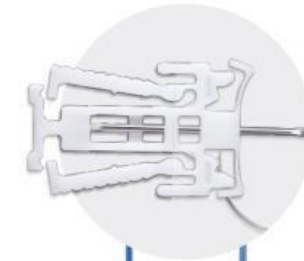
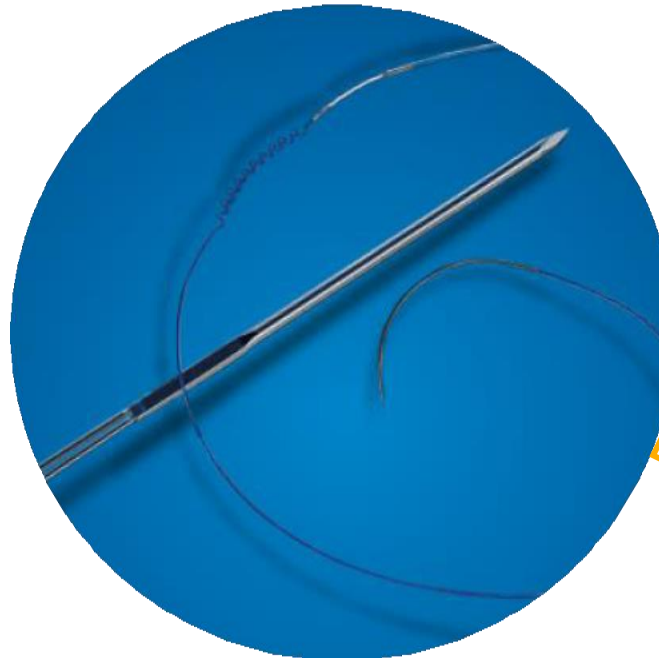
Premium 6500 Unipolar Temporary Myocardial Pacing Lead

- Relaxed fixation coil minimizes trauma during pacing lead insertion
- Diameter of the curved myocardial needle has been reduced from 0.66 mm to 0.61 mm to minimize tissue perforation
- Discrete electrode for consistent sensing and pacing
- Easy-to-use breakaway chest needle has been reduced in diameter from 1.00 mm to 0.86 mm to minimize perforation
- Silastic fixation disc for atrial placement
- Connector pin sleeves insulate connector pins while not in use



Bipolar Coaxial 6495 Bipolar Temporary Myocardial Pacing Lead

- Features coaxial lead body for excellent electrical performance
- Curved myocardial needle is slimmer — reduced from 0.66 mm to 0.61 mm to minimize tissue perforation
- Two discrete electrodes are optimally spaced for consistent pacing and sensing
- Proximal electrode is swaged for smoother transition through tissue
- Relaxed fixation coil minimizes tissue trauma while securely positioning electrode
- Connector pin sleeves insulate connector pins while not in use



Streamline Bipolar

Streamline Unipolar Model 6500

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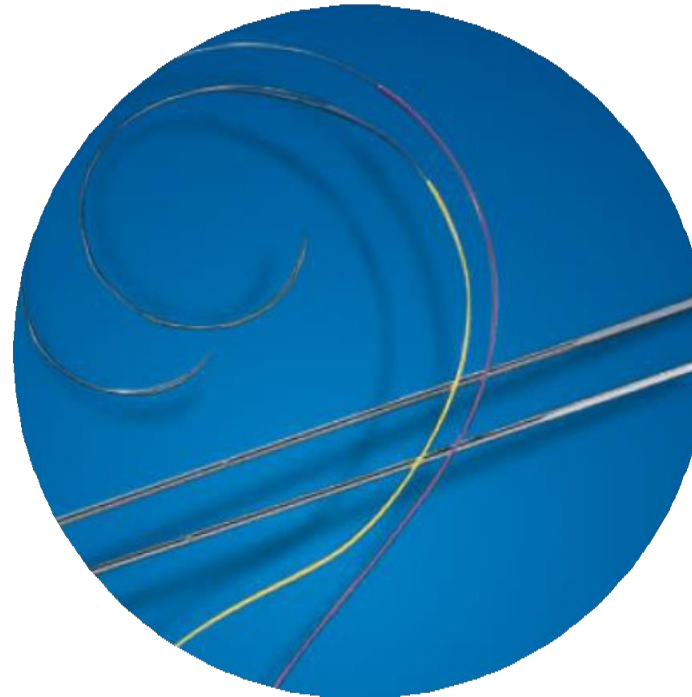
Our recommendation :

Convenience 6494

Unipolar Temporary Myocardial Pacing Wire

The Convenience wire is a temporary pacing wire designed for either atrial or ventricular sensing and pacing.

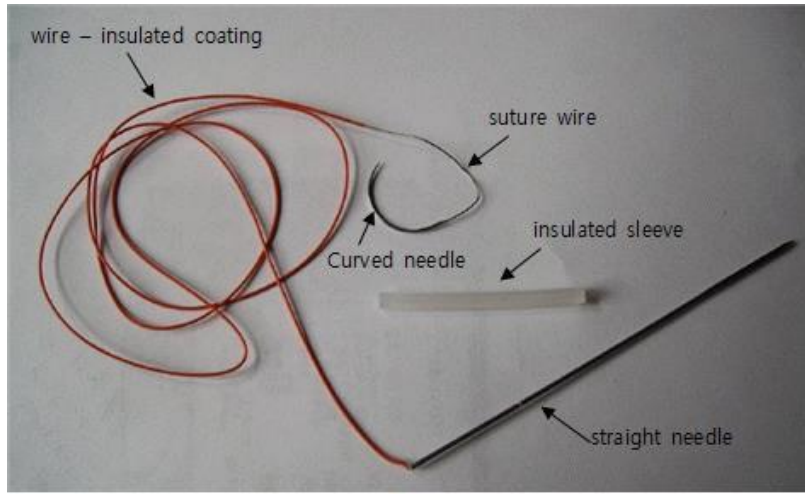
- Conductive wire length extended from 50 mm to 70 mm
- Curved myocardial needle diameter reduced from 0.55 mm to 0.43 mm to minimize trauma during heart wire insertion
- Chest needle diameter reduced from 1.00 mm to 0.86 mm to minimize perforation
- Color-coded leads come conveniently packaged, two per sleeve
- Connector pin sleeves insulate connector pins while not in use



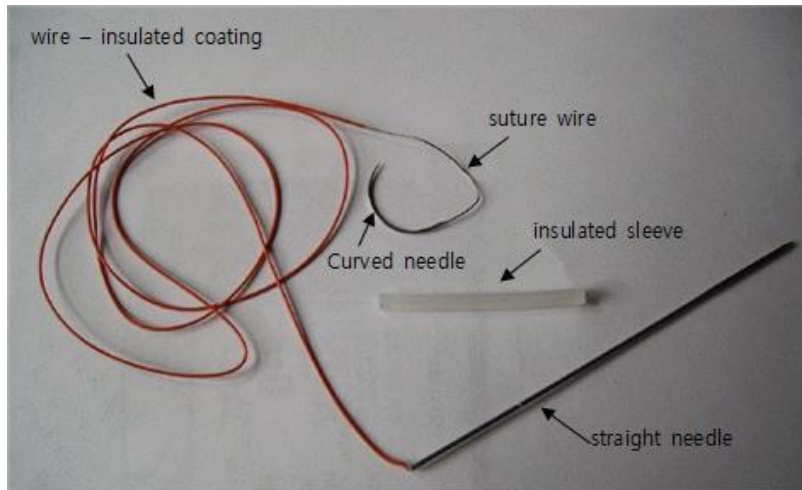
Communication from MITG

Where we are similar:

1. Indications: **temporary atrial and ventricular pacing** and sensing during or after cardiac surgery
2. Double armed: **swaged, curved, tapered** stainless steel needle on **proximal** end, **swaged, straight, cutting** stainless steel needle on **distal** end
3. **Wire structure:** exposed wire lead for proximal end; 24" stainless steel wire insulated with polyethylene
4. Instructions for use:
 - a. curved needle is passed through myocardium (fixated at surgeon's discretion)
 - b. curved needle is cut off
 - c. run straight needle through chest wall
 - d. snap at breakaway point
 - e. insert end (pin) into pacing equipment
5. **pin protector** included
6. packaged in **box of 12**
7. **MRI conditional**



Communication from MITG



Where we differ:

1. **Needle sizes:** Flexon comes in a variety of curved needle lengths that are all half circle; it also has a variety of straight needle lengths; Streamline 6494 is available with one $\frac{3}{4}$ circle needle in 25 mm length and a straight breakaway needle 88 mm long
2. Insulation color: Flexon is available in **orange** and white insulation while Streamline is available in **yellow** and **purple** insulation
3. Wire diameter: Flexon is available in 3 wire diameters: size 0, 2-0, and 3-0. Streamline is available in one diameter most similar to a 2-0
4. Pin protector for when pins are not in use: flexon utilizes a plastic sleeve/tube to protect distal lead; **Streamline comes packaged with pin protector** that parks the needle when not plugged into external pacing unit
5. Flexon is packaged in **either 2 units (wires) per pouch, or 1 unit per pouch**; Streamline 6494F is packaged with **2 wires per pouch** for a total of **24 wires per box**.