

Medtronic

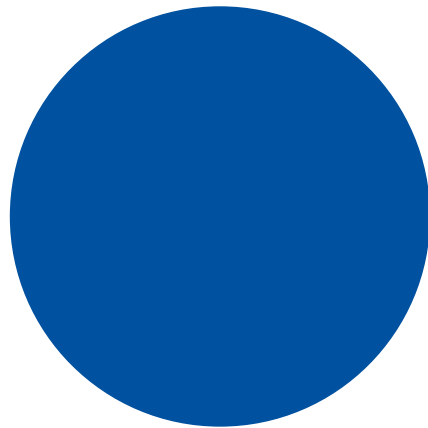
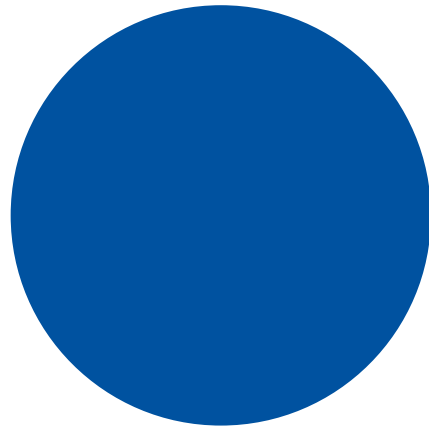
Bio-Medicus Life Support™ Catheters

Individualized ECLS care

Indicated for long-term† ECLS



†21CFR870.4100.



For the full range of patients you treat.

The ECLS catheter line with FDA clearance – the Bio-Medicus Life Support portfolio is part of our ongoing commitment to ECLS.

As ECLS therapy evolves and expands, so does the variety of patients you treat. This makes it challenging to provide the best individualized care for each patient.

The Bio-Medicus Life Support catheter portfolio helps address many of these challenges.

Developed with extensive user input, the Bio-Medicus Life Support catheter offers more lengths, sizes, and configurations than any other brand, giving you the choices you need to individualize your patient's ECLS care.

Designed for performance¹

Optimizing flow

Thin, kink-resistant wall design promotes optimized flow rates.

Ease of insertion

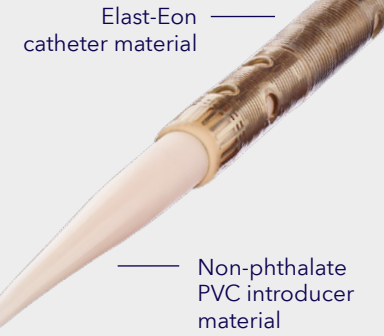
Features such as fingerlet tip supports create a no-step transition allowing for smooth insertion.

Advanced biostable material

Bio-Medicus Life Support catheters are made with Elast-Eon™, a biocompatible and biostable polyurethane/silicone copolymer.† Elast-Eon is commonly used in prolonged-use and implantable medical devices, including ECLS dual lumen catheters.

†Elast-Eon™ is a siloxane urethane copolymer.

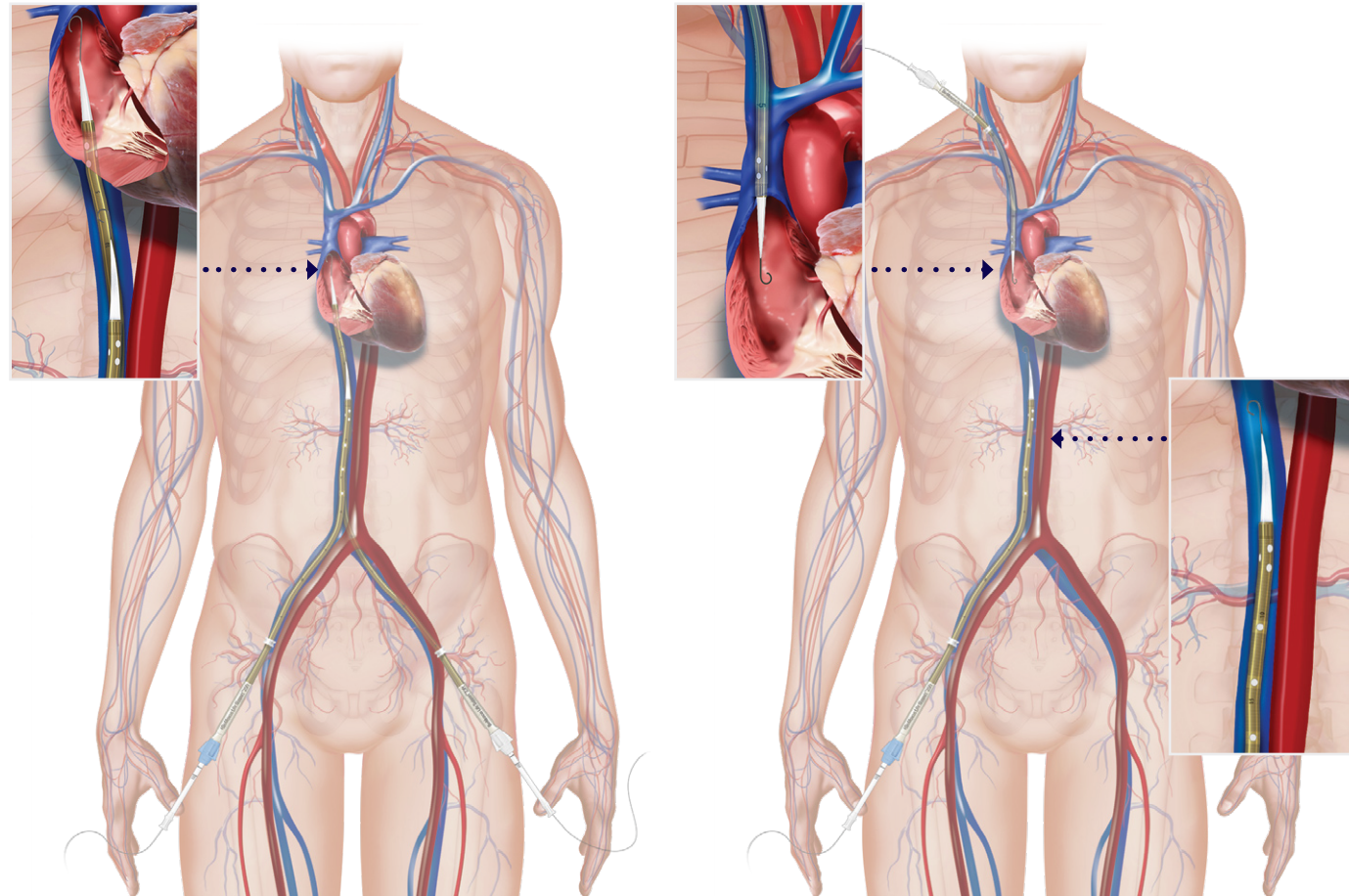
¹Based on Medtronic flow rate/pressure loss data on file. Clinical results will vary due to the patient's condition and blood composition.



Configuration options

We developed the Bio-Medicus Life Support catheter by listening to the needs of ECLS physicians regarding technique and configurations.

Veno-venous



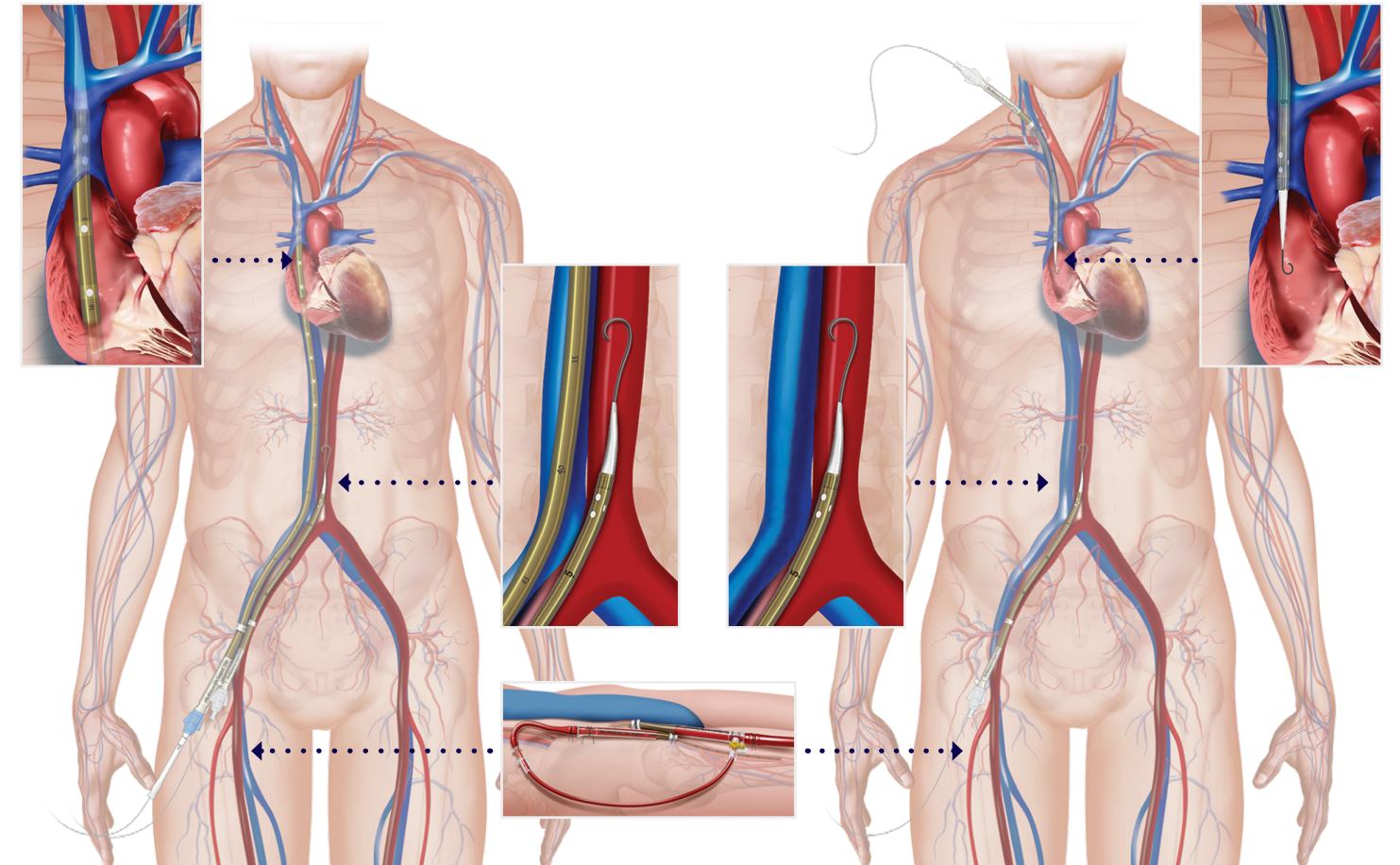
FEM-FEM VV

Femoral-venous drainage
Femoral-venous return

FEMORAL-JUGULAR VV

Femoral-venous drainage
Jugular return

Veno-arterial



FEM-FEM VA

Femoral-venous drainage
Femoral-arterial return

JUGULAR-FEMORAL VA

Jugular-venous drainage
Femoral-arterial return

More sizes. More lengths. More options.

Bio-Medicus Life Support catheters offers options so that you have the flexibility to uniquely treat each patient – smallest to largest, youngest to oldest – with varying extracorporeal support needs.

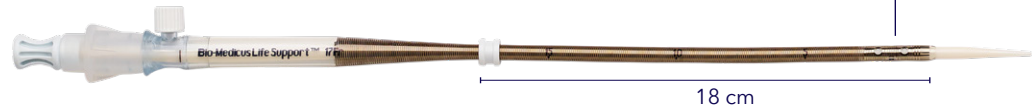
- French sizes 9 to 29
- Insertion lengths from 10 to 61 cm
- Configurations for VA and VV ECMO or ECLS

Drainage or return catheters – Flex

Used for VA or VV configurations

Designed for drainage or return at different insertion lengths, with side holes only near the tip

Flex Up to 18 cm insertion length (See FIGURE A below for flow data) **Side holes near tip**



Flex XL 50 or 55 cm lengths to assist in targeted vascular locations

Radiopaque¹
Suture collar

Depth markings
For visualizing insertion length

Supports tracking over the guidewire
Long-tapered introducer facilitates placement

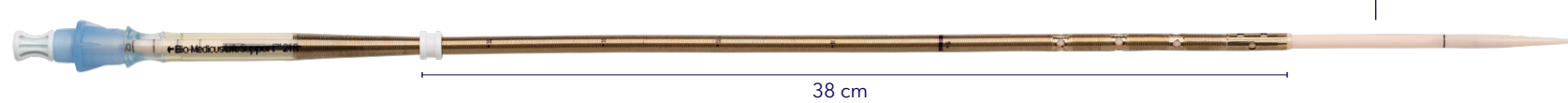
Smooth transitions¹
Tapered tip design



Drainage catheters – Multi

Designed for efficient drainage and optimized flow dynamics²

Multi 38 cm length for drainage from inferior vena cava



Extended introducer
Facilitates ease of insertion

Multi XL 55 and 61 cm lengths; longer insertion length allows various tip placements to support drainage flow



Marker band
Indicates that all side holes are inserted at minimum depth within vessel

Smooth side holes
Ease insertion and removal³

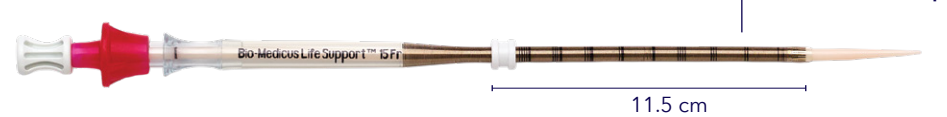
Extended introducer
Facilitates ease of insertion¹

¹ Bench data on file, may not be indicative of clinical performance.

Drainage or return catheters – Mini

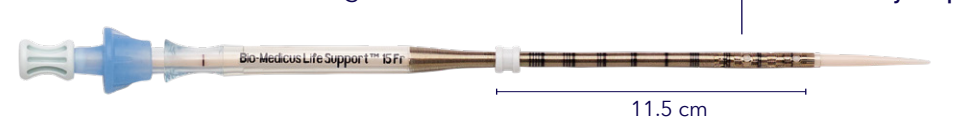
For catheter placement configurations that require smaller sizes and shorter insertable lengths

Mini 10–11.5 cm for return



No side holes at tip

Mini 10–11.5 cm for drainage



Side holes only at tip

¹ Medtronic Data on File: Design Validation Report. These tests may not be indicative of clinical performance.

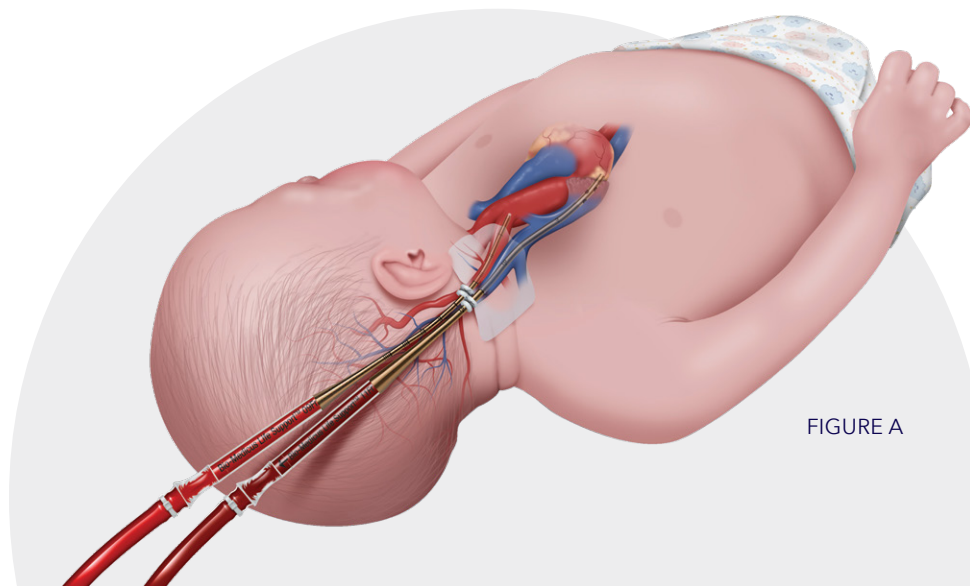
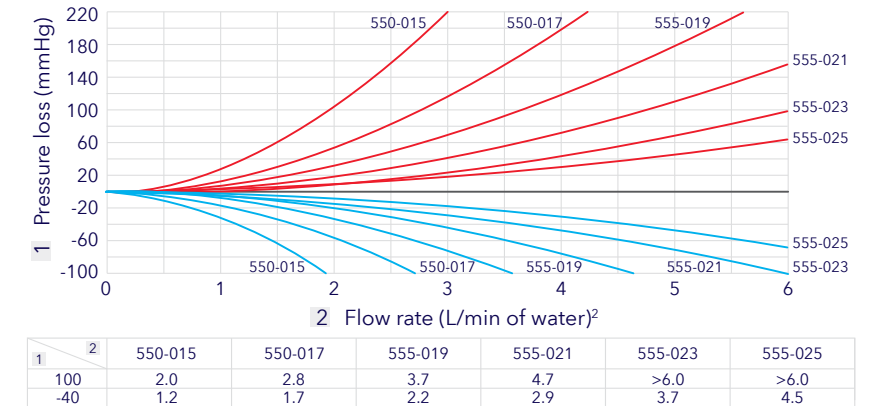
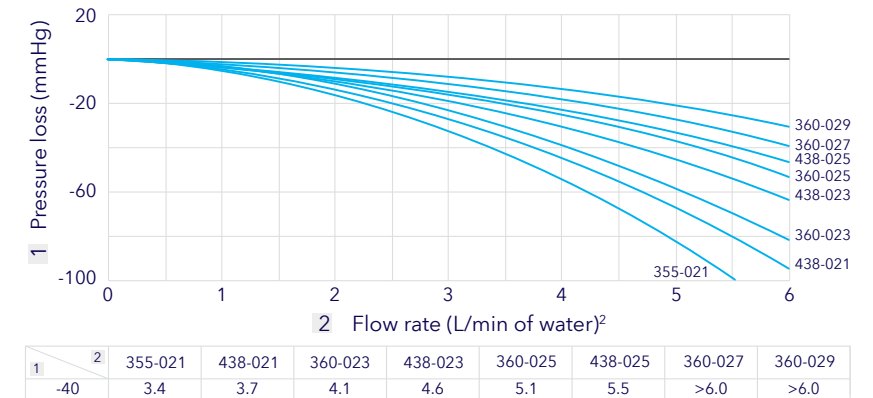


FIGURE A

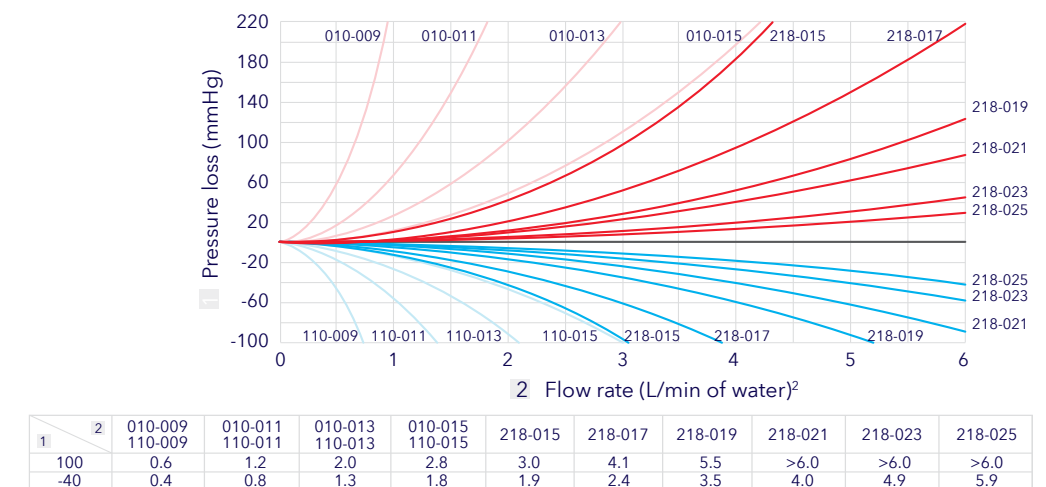
Flex XL return/drainage catheters LS96550-, LS96555-²



Multi and Multi XL drainage catheters LS96438-, LS96355-, LS96360-²



Flex and Mini return/drainage catheters LS96010-, LS96110-, LS96218-²



² Based on Medtronic flow rate/pressure loss data on file. Clinical results will vary due to the patient's condition and blood composition.

³ Medtronic data on file. Design Validation and Verification Report. These tests may not be indicative of clinical performance.

Ordering information

Bio-Medicus Life Support catheters and introducers	Catheter code	French size	Tip length	Connector
Return or drainage Flex	LS96218-015	15 Fr (5.0 mm)	18 cm	3/8 in (0.95 cm) vented
	LS96218-017	17 Fr (5.7 mm)	18 cm	3/8 in (0.95 cm) vented
	LS96218-019	19 Fr (6.3 mm)	18 cm	3/8 in (0.95 cm) vented
	LS96218-021	21 Fr (7.0 mm)	18 cm	3/8 in (0.95 cm) vented
	LS96218-023	23 Fr (7.7 mm)	18 cm	3/8 in (0.95 cm) vented
	LS96218-025	25 Fr (8.3 mm)	18 cm	3/8 in (0.95 cm) vented
Return or drainage Flex XL	LS96550-015	15 Fr (5.0 mm)	50 cm	3/8 in (0.95 cm) non-vented
	LS96550-017	17 Fr (5.7 mm)	50 cm	3/8 in (0.95 cm) non-vented
	LS96555-019	19 Fr (6.3 mm)	55 cm	3/8 in (0.95 cm) non-vented
	LS96555-021	21 Fr (7.0 mm)	55 cm	3/8 in (0.95 cm) non-vented
	LS96555-023	23 Fr (7.7 mm)	55 cm	3/8 in (0.95 cm) non-vented
	LS96555-025	25 Fr (8.3 mm)	55 cm	3/8 in (0.95 cm) non-vented
Drainage Multi	LS96438-021	21 Fr (7.0 mm)	38 cm	3/8 in (0.95 cm) non-vented
	LS96438-023	23 Fr (7.7 mm)	38 cm	3/8 in (0.95 cm) non-vented
	LS96438-025	25 Fr (8.3 mm)	38 cm	3/8 in (0.95 cm) non-vented
Drainage Multi XL	LS96355-021	21 Fr (7.0 mm)	55 cm	3/8 in (0.95 cm) non-vented
	LS96360-023	23 Fr (7.7 mm)	61 cm	3/8 in (0.95 cm) non-vented
	LS96360-025	25 Fr (8.3 mm)	61 cm	3/8 in (0.95 cm) non-vented
	LS96360-027	27 Fr (9.0 mm)	61 cm	3/8 in (0.95 cm) non-vented
	LS96360-029	29 Fr (9.7 mm)	61 cm	3/8 in (0.95 cm) non-vented
Return Mini	LS96010-009	9 Fr (3.0 mm)	10 cm	1/4 in (0.64 cm) non-vented
	LS96010-011	11 Fr (3.7 mm)	10.5 cm	1/4 in (0.64 cm) non-vented
	LS96010-013	13 Fr (4.3 mm)	11 cm	1/4 in (0.64 cm) non-vented
	LS96010-015	15 Fr (5.0 mm)	11.5 cm	1/4 in (0.64 cm) non-vented
Drainage Mini	LS96110-009	9 Fr (3.0 mm)	10 cm	1/4 in (0.64 cm) non-vented
	LS96110-011	11 Fr (3.7 mm)	10.5 cm	1/4 in (0.64 cm) non-vented
	LS96110-013	13 Fr (4.3 mm)	11 cm	1/4 in (0.64 cm) non-vented
	LS96110-015	15 Fr (5.0 mm)	11.5 cm	1/4 in (0.64 cm) non-vented

Important Safety Information:

- Only physicians trained and experienced in using percutaneous catheterization techniques (such as the Seldinger technique), ECMO, and ECLS should use this device.
- Note: The benefits of catheterization for extracorporeal circulation must be weighed against the risk of systemic anticoagulation and subsequent propensity for hemorrhage.
- Caution: Ensure that the catheter size selected is of adequate size for the vessel to allow distal perfusion of the limb when the catheter is in place. Improper catheter size may be difficult to advance. The vessel must be large enough to ensure perfusion and venous return.

Care and caution should be taken to avoid damage to vessels and cardiac tissue during cannulation or other cardiac surgery procedures. For a listing of indications, contraindications, precautions, warnings, and potential adverse events, please refer to the Instructions for Use.

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

Medtronic

710 Medtronic Parkway
Minneapolis, MN 55432-5604
USA

Toll-free: 800.328.2518
Tel: +1.763.514.4000

[medtronic.com](https://www.medtronic.com)

LifeLine
CardioVascular Technical Support
Toll-free: 877.526.7890
Tel: +1.763.526.7890
rs.structuralheart@medtronic.com

©2024 Medtronic. All rights reserved. Medtronic, Medtronic logo, and Engineering the extraordinary are trademarks of Medtronic. [™]Third-party brands are trademarks of their respective owners. All other brands are trademarks of a Medtronic company.

UC202012538e EN
01/2024