Cordis®

RADIAL 360™

ADVANCING RADIAL SOLUTIONS

A COMPLETE RANGE OF PRODUCTS THAT STREAMLINES THE PROCEDURE FROM ACCESS TO CLOSURE

A COMPLETE PORTFOLIO OF ADVANCED, INTEGRATED SOLUTIONS FOR EVERY STEP OF THE PROCEDURE — FROM ACCESS TO CLOSURE

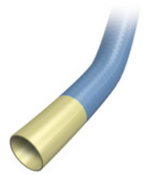
ACCESS

RAIN Sheath® Transradial Thin-walled Introducer

RAILWAY® Sheathless Access System

CATH

INFINITI® & SUPER TORQUE® Plus Diagnostic Catheters



ADROIT® & VISTA BRITE TIP® Guiding Catheters

CLOSE

ZEPHYR® Vascular Compression Band

ZEPHYR® Vascular Compression Band

ACCESS

RAIN SHEATH® INTRODUCER

DESIGNED FOR SMOOTH INSERTION AND STABLE POSITIONING

PROPRIETARY KINK RECOVERY TECHNOLOGY™ ▶

Elastomeric properties allow the RAIN Sheath® Introducer to bend and flex to maintain lumen integrity

IN-VESSEL STABLITIY ▶

1 cm non-slip secure zone at proximal end of sheath designed to secure placement after insertion

HEXACUSPID HEMOSTASIS VALVE ▶

Designed to preserve hemostasis and reduce risk of bleedback

LUBRICIOUS HYDROPHILIC COATING ▶

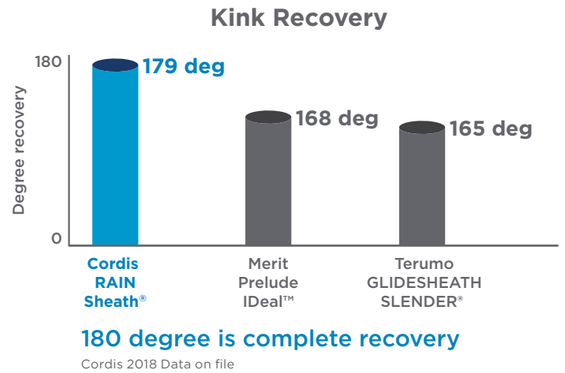
Facilitates smoother, easier insertion and removal

ACCESS: **RAIN SHEATH® INTRODUCER**

KINK RECOVERY TECHNOLOGY™

DESIGNED TO REDUCE THE RISK OF KINKING AND LIKELIHOOD OF ARTERIAL SPASM

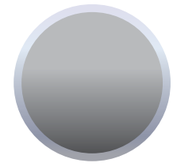
- Elastomeric KINK RECOVERY TECHNOLOGY™ enables the RAIN Sheath® Introducer to maintain its atraumatic shape avoiding sharp edges that can injure the vessel wall.
- Kink recovery feature reduces the need to exchange sheaths mid-procedure



180 degree is complete recovery

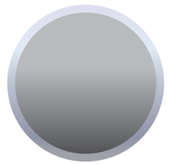
Cordis 2018 Data on file

RAIN SHEATH® INTRODUCER



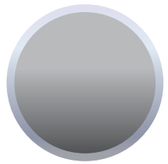
INITIAL PROFILE
Catheter is smooth and symmetrical.

KINK OCCURS
Upon encountering a kink, the catheter is compressed.



REBOUNDED SHAPE
Other leading brands retain their traumatic shape, potentially inducing vessel trauma and spasm, while ***RAIN Sheath® Introducer rebounds to near complete recovery.***

OTHER LEADING BRANDS

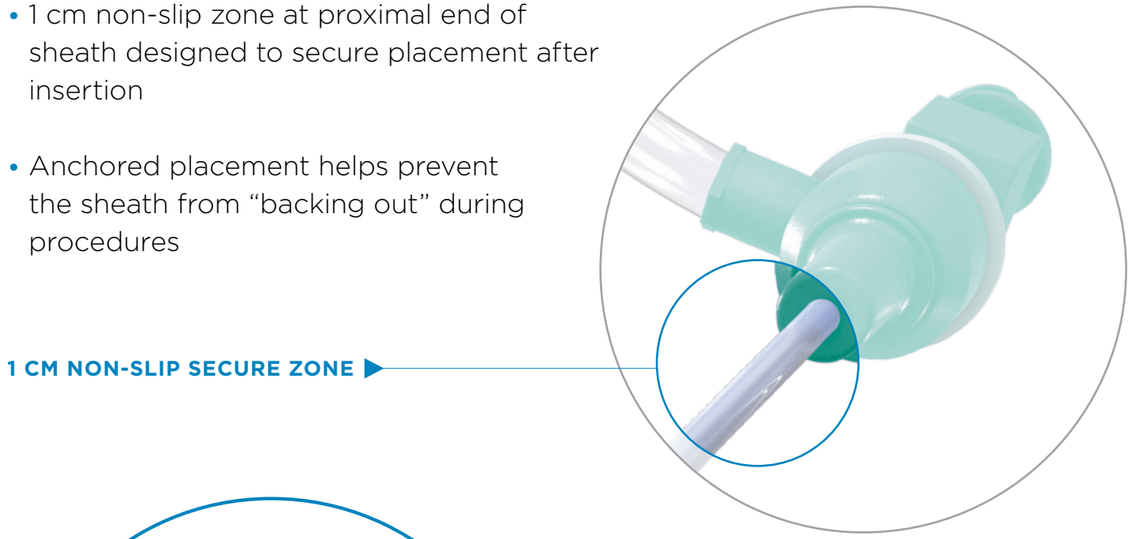


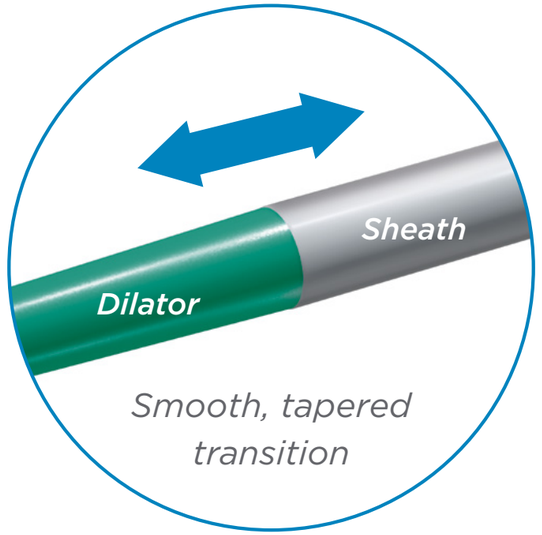
ACCESS: **RAIN SHEATH® INTRODUCER**

IN-VESSEL STABILITY

UNCOATED NON-SLIP ZONE

- 1 cm non-slip zone at proximal end of sheath designed to secure placement after insertion
- Anchored placement helps prevent the sheath from “backing out” during procedures





OPTIMIZED TRANSITIONS

- Designed for atraumatic insertion
- Smooth transitions and tapered tip to reduce insertion force

ACCESS: **RAIN SHEATH® INTRODUCER**

HEXACUSPID HEMOSTASIS VALVE

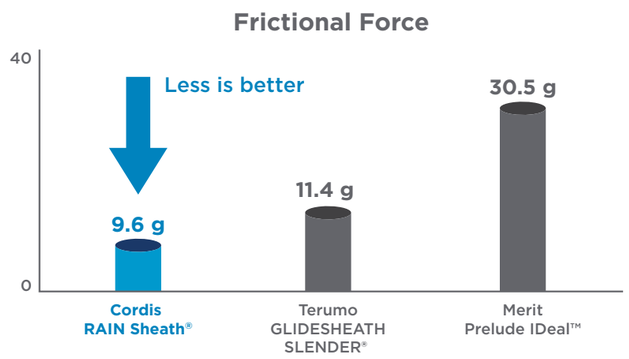
DESIGNED TO MINIMIZE BLEEDBACK

- Designed to optimize device control while preserving hemostasis
- Optimizes sealing, helping to minimize blood loss

HYDROPHILIC COATING

MAXIMUM LUBRICITY AND DURABILITY

- Lubricious hydrophilic coating designed to reduce the risk of radial spasm
- Hydrophilic coating facilitates smooth insertion and removal



Data on file at Cordis.

ACCESS: **RAIN SHEATH® INTRODUCER**

NEEDLES

3 TYPES OF NEEDLES

Cordis offers a variety of needles designed for radial access. Options include a 21G metallic needle for anterior wall puncture methods, and two sizes of IV catheter needles for double-wall puncture.

21G METALLIC NEEDLE

- Best-in-class needle sharpness*
- Reduced insertion force*
- Echogenic

22G IV CATHETER

- Double-wall puncture method
- Translucent hub to visualize bleedback
- 22G x 2.5cm length

20G IV CATHETER

- Double-wall puncture method
- Translucent hub to visualize bleedback
- 20G x 3.2 cm length

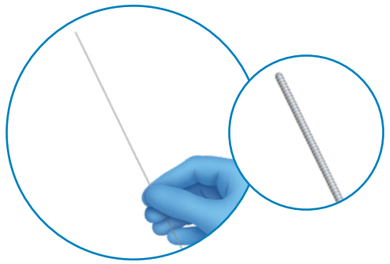
*Bench testing results compared to competitive 21G metallic needles (Merit, Terumo, Cook)

ACCESS: **RAIN SHEATH® INTRODUCER**

MINI-WIRES

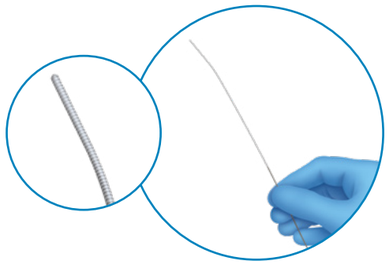
3 TYPES OF MINI-WIRES

Cordis offers a wide range of shapes and wire configurations, to accommodate various needle types and user preferences.



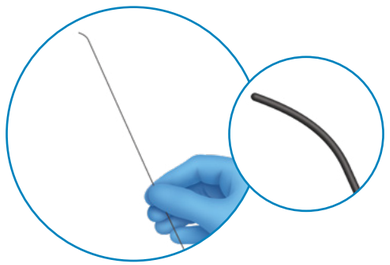
STAINLESS STEEL WIRE

- Flex Straight tip
- 0.021" diameter x 45cm length
- For use with 21G metallic needle



NITINOL WIRE

- Floppy tip
- 0.021" diameter x 45cm length
- For use with 21G metallic needles



POLYMER WIRE

- Shortangle tip
- 0.021" diameter x 45cm length
- For use with 20G and 22G IV catheter needles

ACCESS

RAILWAY® SHEATHLESS ACCESS SYSTEM

THE VERSATILE SYSTEM FOR REDUCING ACCESS UP TO 2F[1]

SMALLER ACCESS PROFILE THAN ANY RADIAL SHEATH ▶

- Reduce risk of spasm and occlusion[2]
- Treat more complex lesions via radial access[3]

RAILWAY® System with 7F guiding catheter = OD profile of a 5F sheath

COMPATIBILITY ▶

- Works with hundreds of guiding catheters[4]
- Available in 5F, 6F, and 7F sizes

VERSATILITY ▶

- Access with purely sheathless approach for planned interventions
- Increase guiding catheter French size following angiography with a sheath
- Track through radial anatomy either with or without a sheath

CONVERT YOUR PREFERRED GUIDE[4] INTO A RADIAL SHEATHLESS ACCESS SYSTEM

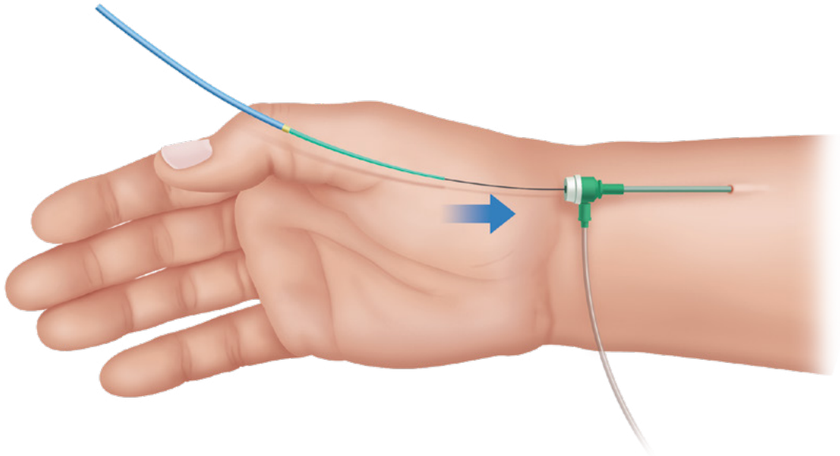
1. Compared to conventional radial sheaths. Profile reduction is 1.2F compared to Terumo Glidesheath Slender®.
2. Vessel injury, spasm and occlusion risk is reduced with lower profile devices.Saurabh Sanon and Rajiv Gulati, "Slender Approach and Sheathless Technique", Interventional Cardiology Clin 4 (2015) 161-166
3. With the puncture size of a 5F sheath, the RAILWAY® System enables the use of atherectomy devices and dual (kissing) balloons compatible with 7F guiding catheters.
4. Optimized for VISTA BRITE TIP® and ADROIT® Catheters; compatible with Terumo Heartrail® II, Boston Scientific Mach 1™, and Medtronic Launcher® guiding catheters.

ACCESS: **RAILWAY® ACCESS SYSTEM**

TRACKING

FACILITATE TRACKING

Sheath or sheathless—use the RAILWAY® System to facilitate guide catheter tracking through the radial anatomy, up to the subclavian artery.



LEARN HOW RAILWAY FITS IN YOUR PRACTICE WITH THE CORDIS@HAND APP.

1. The profile of the RAILWAY® system is smaller than any radial sheath of the same French size

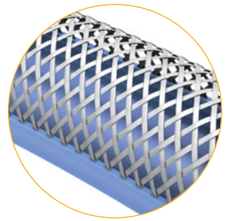
CATH

CORDIS CATHETER TECHNOLOGY

INFINITI® & SUPER TORQUE® PLUS DIAGNOSTIC CATHETERS

AVAILABLE IN AN EXTENSIVE RANGE OF DEDICATED AND UNIVERSAL SHAPES, NOW INCLUDING THE RBL-TG™ AND RBL-JK™

The RBL-TG™ and RBL-JK™ universal shapes allow you to cannulate both the left and right coronary artery with a single catheter and are available in both our nylon **INFINITI®** and polyurethane **SUPER TORQUE® Plus Diagnostic Catheter** lines—two different materials, and two distinct options for how the catheter feels in your hand.

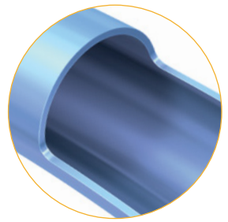


DIRECT RESPONSE ▶

High density braiding for exceptional responsiveness and one to one torque control

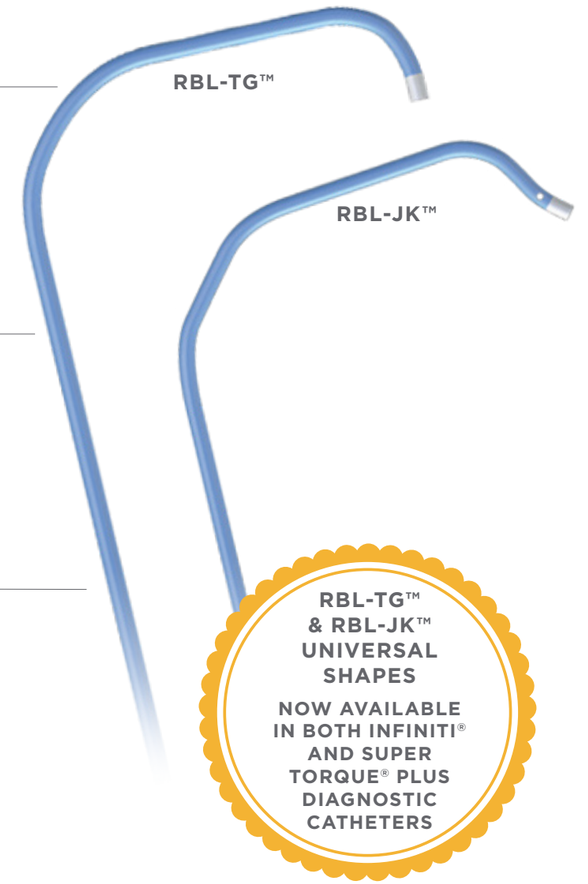
KINK RESISTANCE ▶

Braided construction for excellent pushability without compromising kink resistance



TRUE LUMEN DESIGN ▶

True Lumen design with thin wall technology for a consistent lumen diameter that facilitates easy injections and higher flow rates[1]



1. Only available on the INFINITI® diagnostic catheter product line

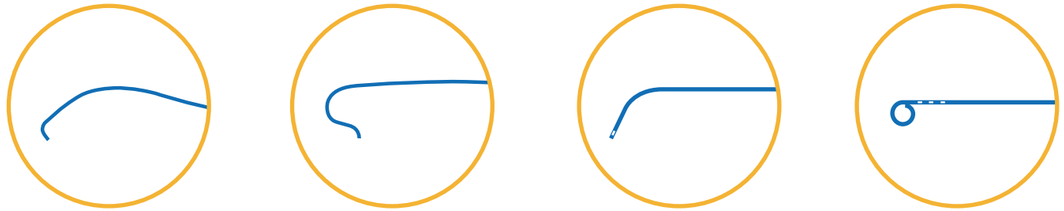
CATH: **CORDIS CATHETER TECHNOLOGY**

OUR LEADING PORTFOLIO NOW WITH MORE SHAPES

UNIVERSAL SHAPES

RBL-TG™ *RBL-JK™* *RBL* *Barbeau*

DEDICATED AND SPECIAL SHAPES



Judkins Right *Amplatz Left* *Multipurpose* *Straight Pigtail*

- Judkins Left
- Amplatz Right
- Sones
- Internal Mammary
- Coronary Bypass
- 3DRC (Williams)
- SRC (Noto)
- NIH
- El Gamal
- Castillo
- Radial/Brachial (Tilon)
- Angled Pigtail (Van Tassel)

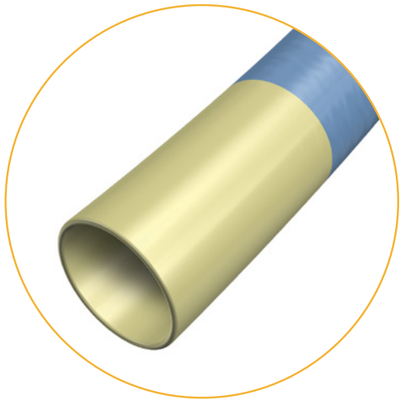
REFERENCE OUR
CARDIOVASCULAR CATALOG
FOR MORE INFORMATION AT: CORDIS.COM

CATH

CORDIS CATHETER TECHNOLOGY

VISTA BRITE TIP® & ADROIT® GUIDING CATHETERS

Our Guiding Catheter Portfolio is comprised of the **VISTA BRITE TIP®** and **ADROIT® Guiding Catheters,** and intended for the intravascular introduction of interventional/diagnostic devices into the coronary or peripheral vascular systems.

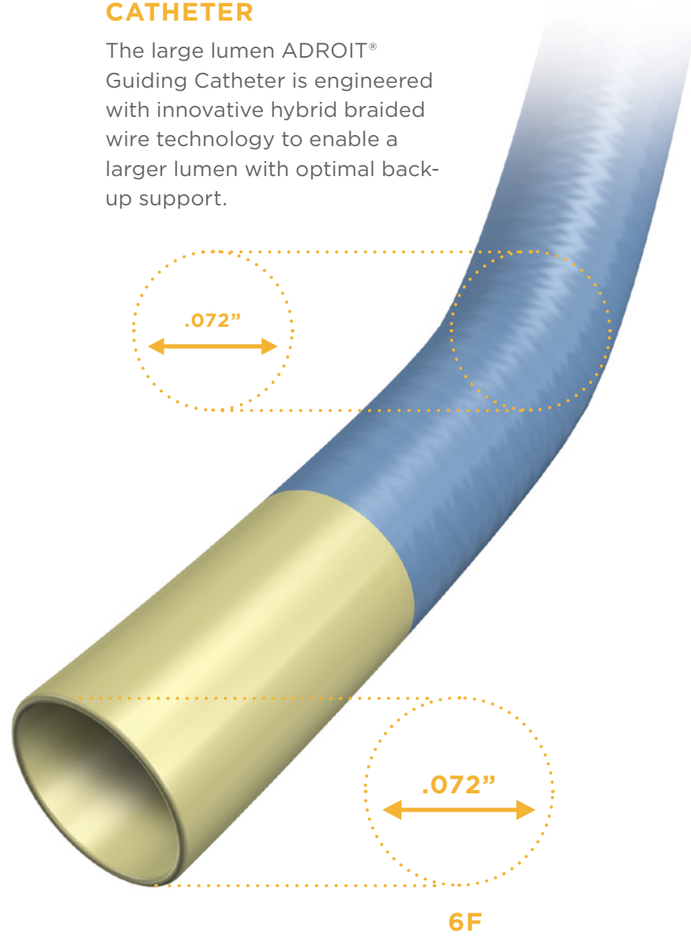


VISTA BRITE TIP® GUIDING CATHETER

A complete system of guiding catheters that are optimized to answer clinical needs. The performance-based design of each catheter easily meets strength, control and delivery requirements in the widest range of anatomies.

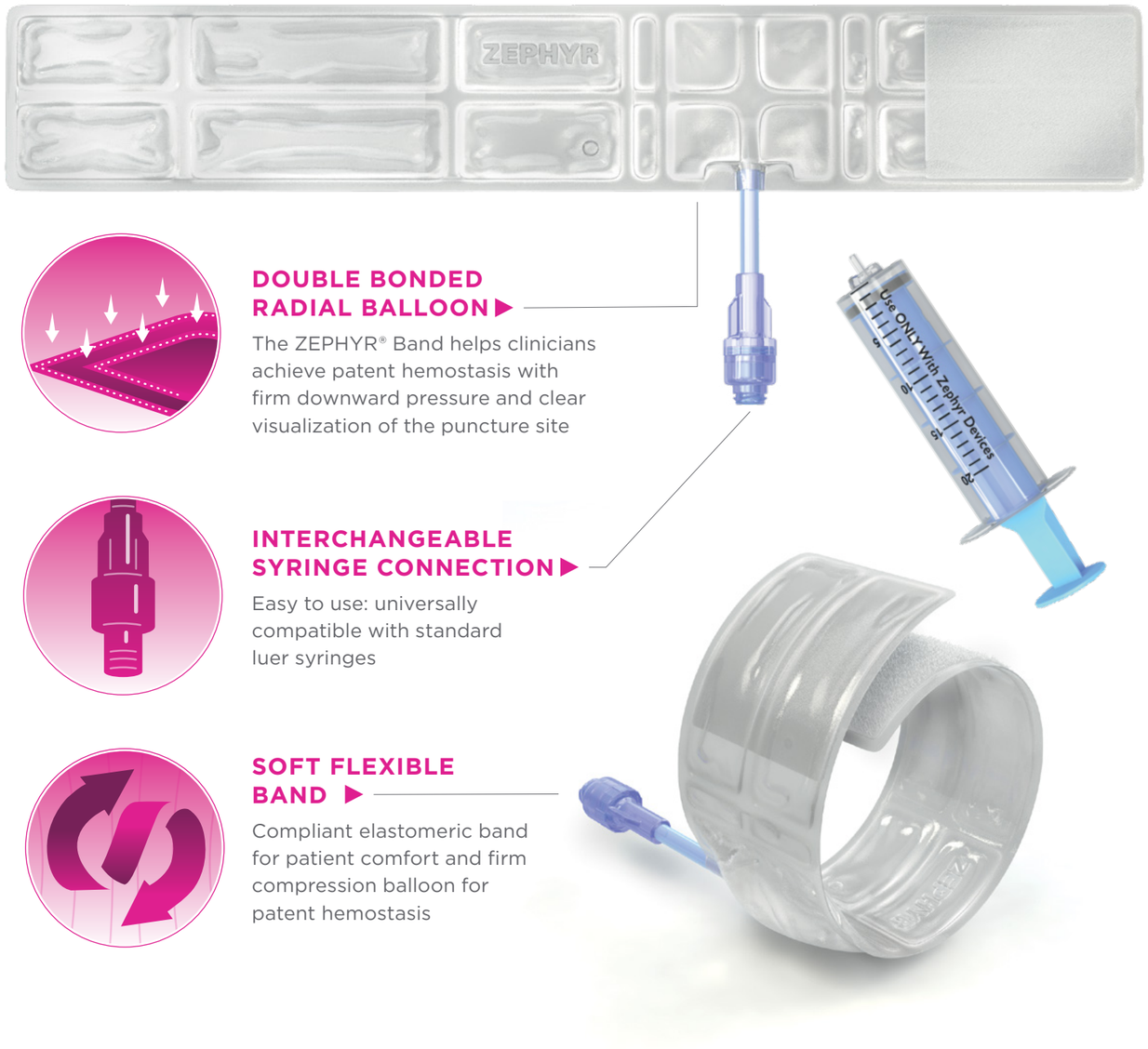
ADROIT® GUIDING CATHETER

The large lumen ADROIT® Guiding Catheter is engineered with innovative hybrid braided wire technology to enable a larger lumen with optimal back-up support.



ZEPHYR® VASCULAR COMPRESSION BAND

DESIGNED TO SIMPLIFY PATENT HEMOSTASIS



DOUBLE BONDED RADIAL BALLOON ▶

The ZEPHYR® Band helps clinicians achieve patent hemostasis with firm downward pressure and clear visualization of the puncture site

INTERCHANGEABLE SYRINGE CONNECTION ▶

Easy to use: universally compatible with standard luer syringes

SOFT FLEXIBLE BAND ▶

Compliant elastomeric band for patient comfort and firm compression balloon for patent hemostasis

ADVANCING RADIAL SOLUTIONS FROM ACCESS TO CLOSURE

FOR MORE INFORMATION PLEASE CALL:
800-327-7714 OR VISIT **CORDIS.COM**

REFERENCES
1. Cordis 2018 Data on file.
2. RAIN Sheath® Introducer Instructions for Use.
3. RAILWAY® Sheathless Access System Instructions for Use.
4. INFINITI™ Diagnostic Catheter Instructions for Use.
5. SUPER TORQUE® Plus Diagnostic Catheter Instructions for Use.
6. VISTA BRITE TIP® Guiding Catheter Instructions for Use.
7. ADROIT® Guiding Catheter Instructions for Use.
8. ZEPHYR® Vascular Compression Band Instructions for Use.

CONTRAINDICATIONS AND WARNINGS FOR THE RAIN SHEATH® INTRODUCER

CONTRAINDICATIONS
None Known.

WARNINGS
- Use of alcohol, antiseptic solutions, or other solvents should be avoided, as they may adversely affect the device.
- For the IV Catheter needle, do not reinsert the needle into the IV catheter at any time. The needle could damage the IV catheter, resulting in an IV catheter embolus.
- Do not leave the CSI in place for extended periods of time without a catheter in place.
- If using a hydrophilic or polymer wire, do not use with a bare needle, as this may damage the integrity of the coating or jacket.
- Manipulate the mini-guidewire slowly and carefully to avoid damage to the vessel wall, while monitoring the tip position and movement using standard catheterization technique.
- Once the vessel dilator is removed, manipulate the sheath introducer slowly and carefully to minimize the chances of kinking.
- Persons with allergic reactions to nickel may suffer an allergic response to components of this device.
- During the procedure, provide a proper anticoagulant or antiplatelet therapy to the patient.
- Do not use power injector for contrast media injection from the side port.
- Prior to radial access procedures, it is recommended to verify adequate collateral flow through the ulnar artery, such as with an Allen test. If collateral blood supply to the hand is considered inadequate, an alternate access site should be considered.
- Do not manually re-shape the tip of the mini-guidewire by applying external force intended to bend or affect the shape of mini-guidewire.

CONTRAINDICATIONS AND WARNINGS FOR THE RAILWAY® SHEATHLESS ACCESS SYSTEM

CONTRAINDICATIONS
Avoid the use of the RAILWAY® Sheathless Access System in vasculature with extreme tortuosity, calcified plaque or thrombus.
Radial access is contraindicated in patients with:
- Inadequate circulation to the extremity as evidenced by signs of artery occlusion or absence of radial pulse.
- Hemodialysis shunt, graft or arteriovenous fistula involving the upper extremity vasculature.

WARNINGS
- Prior to radial access procedures, it is recommended to verify adequate collateral flow through the ulnar artery, such as with an Allen test. If collateral blood supplyto the hand is considered inadequate, an alternate access site should be considered.
- Do not use Ethiodol™ or Lipiodol™ contrast media, or other such contrast media which incorporates components of these agents, as solvents used in these media may have a deleterious effect on the device.
- For the Introcan Safety® IV Catheter needle, do not reinsert the needle into the IV catheter at any time. The needle could damage the IV catheter, resulting in an IV catheter embolus.
- If using a hydrophilic wire, do not use with a bare needle or metal torque device, as this may damage the integrity of the coating.
- Use of alcohol, antiseptic solutions, or other solvents should be avoided, as they may adversely affect the device.
- Manipulate the mini-guidewire slowly and carefully to avoid damage to the vessel wall, while monitoring tip position and movement under fluoroscopy.
- Failure to follow the procedural steps when exchanging a guiding catheter may result in loss of vessel access.
- Do not manually re-shape the distal tip of the dilator or the mini-guidewire by applying external force intended to bend or affect the shape of the dilator or mini-guidewire.
- The dilator must only be advanced while over a guidewire. Advancing the dilator without a wire in place may cause vascular complications.
- Persons with allergic reactions to nickel may suffer an allergic response to components of this device.
- Important information: Prior to use, refer to the instruction for use supplied with this device for indications, contraindications, side effects, suggested procedure, warnings and precautions.

CONTRAINDICATIONS AND WARNINGS FOR THE INFINITI® DIAGNOSTIC CATHETERS

CONTRAINDICATIONS
None known.

WARNINGS
- Discard catheters after one procedure. Structural integrity and/or function may be impaired through reuse or cleaning. All parts are extremely difficult to clean after exposure to biological materials and may cause adverse patient reactions if reused.
- Do not expose to organic solvents.
- Do not use with Ethiodol™ or Lipiodol™ contrast media,or other such contrast media which incorporates the components of these agents.
- Do not exceed maximum pressure rating printed on product label and hub.

CONTRAINDICATIONS AND WARNINGS FOR THE SUPER TORQUE® PLUS DIAGNOSTIC CATHETERS

CONTRAINDICATIONS
None known.

WARNINGS
- Failure to observe these instructions may result in damage, breakage or separation of the catheter or the markerbands, which may necessitate additional intervention.
- Manipulation of the catheter under excessive friction due to interaction with other devices or while trapped in the vasculature, can lead to stretching or elongation of the catheter.
- Stretching or elongation of the catheter during endovascular procedures could result in the marker bands moving along the catheter. In extreme cases, marker bands may come off the catheter and dislodge into the vascular system.
- This product is designed and intended for single use. It is not designed to undergo reprocessing and re-sterilization after initial use. Reuse of this product, including after reprocessing and/or re-sterilization, may cause a loss of structural integrity which could lead to a failure of the device to perform as intended and may lead to a loss of critical labeling/use information all of which present a potential risk to patient safety.
- Do not expose to organic solvents.
- Do not exceed maximum pressure rating printed on label and hub.

CONTRAINDICATIONS AND WARNINGS FOR THE VISTA BRITE TIP® GUIDING CATHETERS

CONTRAINDICATIONS
None known.

WARNINGS
Risk of reuse: This product is designed and intended for single use. It is not designed to undergo reprocessing and re-sterilization after initial use. Reuse of this product, including after reprocessing and/or re-sterilization, may cause a loss of structural integrity which could lead to a failure of the device to perform as intended and may lead to a loss of critical labeling/use information all of which present a potential risk to patient safety. Do not use with Ethiodol™ or Lipiodol™ contrast media, or other such contrast media which incorporates the components of these agents.

CONTRAINDICATIONS AND WARNINGS FOR THE ADROIT® GUIDING CATHETERS

CONTRAINDICATIONS
None known.

WARNINGS
Risk of reuse: This product is designed and intended for single use. It is not designed to undergo reprocessing and re-sterilization after initial use. Reuse of this product, including after reprocessing and/or re-sterilization, may cause a loss of structural integrity which could lead to a failure of the device to perform as intended and may lead to a loss of critical labeling/use information all of which present a potential risk to patient safety. Do not use with Ethiodol™ or Lipiodol™ contrast media, or other such contrast media which incorporates the components of these agents.

CONTRAINDICATIONS AND WARNINGS FOR THE ZEPHYR® VASCULAR COMPRESSION BAND

CONTRAINDICATIONS
- Patients with infection or other serious skin diseases at the site of puncture.
- Patients with an abnormal Allen test or radial pulse, or insufficient blood supply in the ulnar or radial arteries.

WARNINGS
None Known.

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

Important information: Prior to use, refer to the instructions for use supplied with this device for indications, contraindications, side effects, suggested procedure, warnings and precautions. As part of its continuous product development policy, Cordis reserves the right to change product specifications without prior notification. Please contact your Cordis representative for additional product availability information. ZEPHYR® Vascular Compression Band is manufactured by Advanced Vascular Dynamics and distributed by Cordis Corporation.