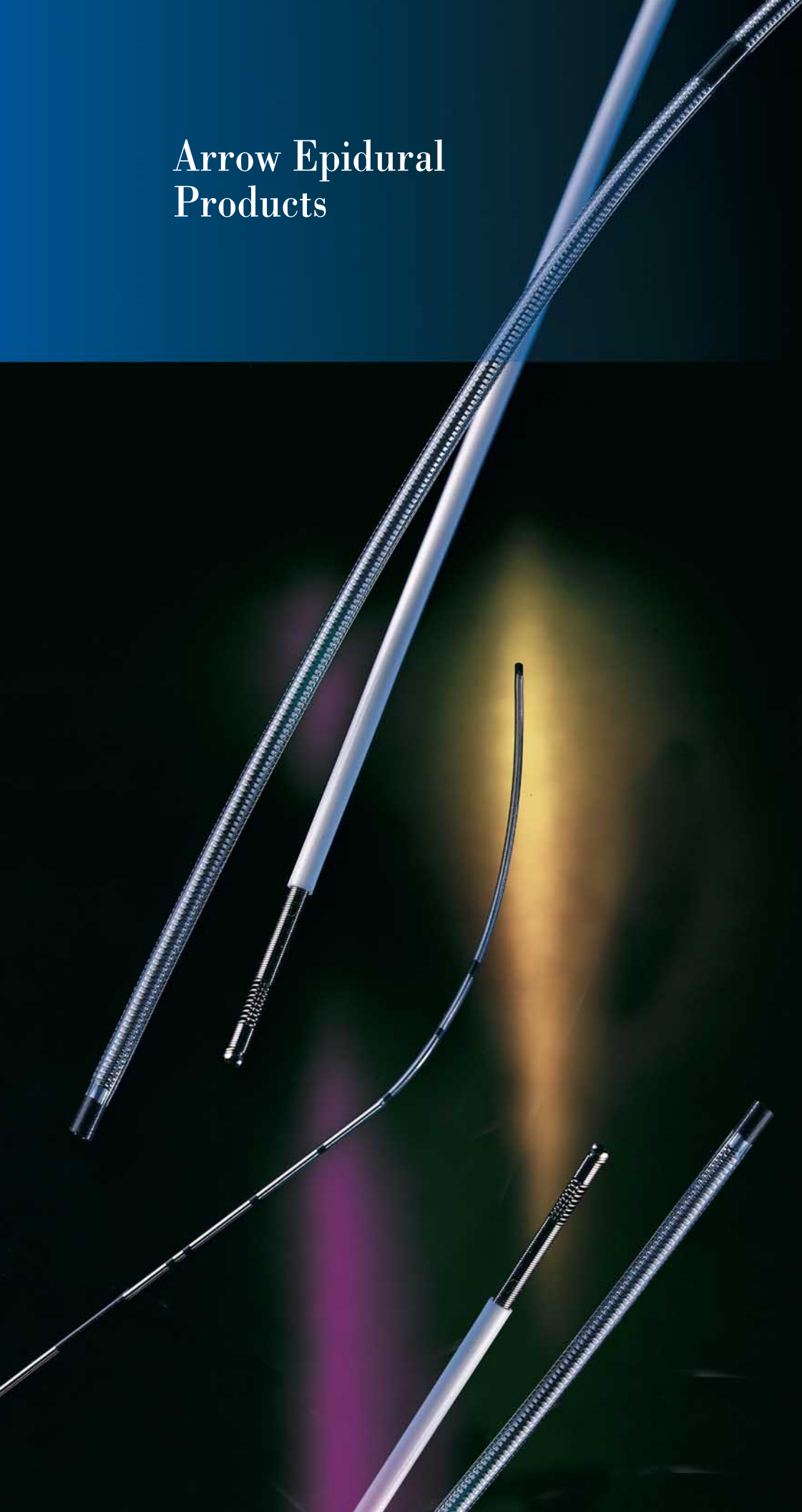


# Arrow Epidural Products



ARROW

Two unique catheters  
designed for superior  
pain management.

## PRODUCT INFORMATION

### Arrow FlexTip Plus® and TheraCath® Epidural Catheterization Products

#### AK-05502 10 Kits/Case

##### Arrow FlexTip Plus® Epidural Kit

- One: Epidural Catheter: 19 Ga. x 36" (92 cm) FlexTip Plus® (single open end hole) with SnapLock™ Adapter, Threading Assist Device
- One: Epidural Needle: 17 Ga. 3½" (8.89 cm) TW with cm markings
- One: Injection Needle: 18 Ga. x 1½" (3.81 cm)
- One: Injection Needle: 22 Ga. x 1½" (3.81 cm)
- One: Injection Needle: 25 Ga. x ¾" (1.59cm) and 3 cc Luer-Lock Syringe
- One: Syringe: 20 cc Luer-Slip
- One: Syringe: 5 cc Luer-Slip, Glass
- One: 10 ml Ampule 0.9% Saline Solution
- One: 3 Swabsticks Foil Pack 10% Povidone-Iodine
- One: 5 ml Ampule HCl 1% Lidocaine Solution
- One: 5 ml Ampule HCl 1.5% Lidocaine with Epinephrine 1:200,000 Solution
- One: Drape: 24" x 30" with 4" fenestration, with adhesive
- One: CSR Wrap
- One: Epidural Pad
- One: Filter: 0.2 Micron Flat
- Five: Gauze Pads: 4" x 4"
- Three: Prep Sponge Swabs
- One: SharpsAway® Disposable Cup
- One: Tray: Prep
- One: Towel: 13" x 18"

#### AK-05000 10 Kits/Case

##### Arrow TheraCath® Epidural Kit

- One: Epidural Catheter: 19 Ga. x 36" (92 cm) TheraCath® with Stylet, SnapLock™ Adapter
- One: Epidural Needle: 17 Ga. x 3½" (9.84 cm) TW with cm markings
- One: Injection Needle: 18 Ga. x 1½" (3.81 cm)
- One: Injection Needle: 22 Ga. x 1½" (3.81 cm)
- One: Injection Needle: 25 Ga. x 1" (2.54 cm)
- One: Syringe: 20 cc Luer-Lock
- One: Syringe: 3 cc Luer-Lock
- One: Syringe: 5 cc Luer-Lock, Glass
- One: Drape: 24" x 30" with 4" fenestration, with adhesive
- One: Drape: 24" x 36"
- One: CSR Wrap
- One: Filter: 5 Micron Straw
- Four: Gauze Pads: 4" x 4"
- One: Medicine Cup
- Two: Prep Sponge Swabs
- One: Tray: Prep
- One: Wing Clip: Hub

#### EC-05400-E 20 Sets/Case

##### Arrow FlexTip Plus® Epidural Set

- One: Epidural Catheter: 19 Ga. x 36" (92 cm) FlexTip Plus® (single open end hole) with SnapLock™ Adapter, Threading Assist Device
- One: Epidural Needle: 17 Ga. x 3½" (9.84 cm) TW with cm markings
- One: Filter: 0.2 Micron Flat
- One: Wing Clip: Hub

#### Arrow Catheters

#### EC-05500 20 Catheters/Case

##### Arrow FlexTip Plus® Epidural Catheter

- One: Epidural Catheter: 19 Ga. x 36" (92 cm) FlexTip Plus® (single open end hole) with SnapLock™ Adapter, Threading Assist Device

#### EC-05000 20 Catheters/Case

##### Arrow TheraCath® Epidural Catheter

- One: 19 Ga. x 36" (92 cm) TheraCath® Spring-Wire Reinforced Catheter with Stylet, SnapLock™ Adapter

#### Arrow Epidural Accessories

Product No.	Description	Per Case
AN-02017	Husted Epidural Needle 17 Ga. x 3-7/8" (9.84 cm) TW with cm markings, metal hub and metal stylet	100
EF-05500	0.2 Micron Flat Filter	100
AN-05501	Tuohy Epidural Needle: 17 Ga. x 3-1/2" (8.89 cm) TW with cm markings, plastic hub and plastic stylet	100



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1 Junega M, MD, Kargas GA, MD, Miller D, CRNA, Perry E, MD, Gupta B, MD, Pajel V, MD, Botic Z, MD, and Rigor B, MD. Comparisons of Epidural Catheters Induced Parasthesia in Parturients. Poster presentation from the American Society of Regional Anesthesia (A.S.R.A.) meeting; presented April, 1995 - Orlando, FL. *Regional Anesthesia* 1995; 20 (Suppl.):4.

2 Junega M, MD, Kargas GA, MD, Miller D, CRNA, Perry E, MD, Botic Z, MD, and Rigor B, MD. Incidence of Epidural Vein Cannulation in Parturients with Three Different Epidural Catheters. *Regional Anesthesia* 1996; 21 (Suppl.):4.

Caution: U.S. Federal Law limits this device to sale by or on order of a physician. Contents of unopened, undamaged package are sterile. Contains no medication. Disposable. Refer to package insert for current warnings, precautions, and instructions for use.

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EPD-C 08/01 5M CZ



*Designed to reduce complications while simplifying procedures, the Arrow FlexTip Plus® epidural catheter raises the standard for epidural catheters.*

One look at its unique construction explains why this remarkable catheter is the most innovative epidural catheter available anywhere.

From its soft, flexible tip to its firm, kink-resistant body, the Arrow FlexTip Plus® is designed to deliver new measures of safety and performance.

**Arrow offers you the most technologically advanced epidural catheters. For superior pain management.**

The Arrow FlexTip Plus®, along with the Arrow TheraCath® epidural catheter, provide you with state-of-the-art options for superior pain management. For more information about Arrow epidural catheters, call your Arrow representative, or contact us by calling 800-523-8446 or 610-378-0131.



# Arrow Epidural Products

## PRODUCT INFORMATION

### Arrow FlexTip Plus® and TheraCath® Epidural Catheterization Products

**AK-05502** 10 Kits/Case

#### Arrow FlexTip Plus® Epidural Kit

- One: Epidural Catheter: 19 Ga. x 36" (92 cm) FlexTip Plus® (single open end hole) with SnapLock™ Adapter, Threading Assist Device
- One: Epidural Needle: 17 Ga. x 3 1/2" (8.89 cm) TW with cm markings
- One: Injection Needle: 18 Ga. x 1 1/2" (3.81 cm)
- One: Injection Needle: 22 Ga. x 1 1/2" (3.81 cm)
- One: Injection Needle: 25 Ga. x 1 1/2" (3.81 cm)
- One: Injection Needle: 25 Ga. x 3/4" (1.59 cm) and 3 cc Luer-Lock Syringe
- One: Syringe: 20 cc Luer-Slip
- One: Syringe: 5 cc Luer-Slip, Glass
- One: 10 ml Ampule 0.9% Saline Solution
- One: 3 Swabsticks Foil Pack 10% Povidone-Iodine
- One: 5 ml Ampule HCl 1% Lidocaine Solution
- One: 5 ml Ampule HCl 1.5% Lidocaine with Epinephrine 1:200,000 Solution
- One: Drape: 24" x 30" with 4" fenestration, with adhesive
- One: CSR Wrap
- One: Epidural Pad
- One: Filter: 0.2 Micron Flat
- Five: Gauze Pads: 4" x 4"
- Three: Prep Sponge Swabs
- One: SharpsAway® Disposable Cup
- One: Tray: Prep
- One: Towel: 13" x 18"

#### Arrow Catheters

**EC-05500** 20 Catheters/Case

#### Arrow FlexTip Plus® Epidural Catheter

- One: Epidural Catheter: 19 Ga. x 36" (92 cm) FlexTip Plus® (single open end hole) with SnapLock™ Adapter, Threading Assist Device

**EC-05000** 20 Catheters/Case

#### Arrow TheraCath® Epidural Catheter

- One: 19 Ga. x 36" (92 cm) TheraCath® Spring-Wire Reinforced Catheter with Stylet, SnapLock™ Adapter

**AK-05000** 10 Kits/Case

#### Arrow TheraCath® Epidural Kit

- One: Epidural Catheter: 19 Ga. x 36" (92 cm) TheraCath® with Stylet, SnapLock™ Adapter
- One: Epidural Needle: 17 Ga. x 3 1/2" (9.84 cm) TW with cm markings
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- One: Injection Needle: 25 Ga. x 1" (2.54 cm)
- One: Syringe: 20 cc Luer-Lock
- One: Syringe: 3 cc Luer-Lock
- One: Syringe: 5 cc Luer-Lock, Glass
- One: Drape: 24" x 30" with 4" fenestration, with adhesive
- One: Drape: 24" x 36"
- One: CSR Wrap
- One: Filter: 5 Micron Straw
- Four: Gauze Pads: 4" x 4"
- One: Medicine Cup
- Two: Prep Sponge Swabs
- One: Tray: Prep
- One: Wing Clip: Hub

**EC-05400-E** 20 Sets/Case

#### Arrow FlexTip Plus® Epidural Set

- One: Epidural Catheter: 19 Ga. x 36" (92 cm) FlexTip Plus® (single open end hole) with SnapLock™ Adapter, Threading Assist Device
- One: Epidural Needle: 17 Ga. x 3 1/2" (9.84 cm) TW with cm markings
- One: Filter: 0.2 Micron Flat
- One: Wing Clip: Hub

#### Arrow Epidural Accessories

Product No.	Description	Per Case
AN-02017	Husted Epidural Needle 17 Ga. x 3-7/8" (9.84 cm) TW with cm markings, metal hub and metal stylet	100
EF-05500	0.2 Micron Flat Filter	100
AN-05501	Tuohy Epidural Needle: 17 Ga. x 3-1/2" (8.89 cm) TW with cm markings, plastic hub and plastic stylet	100

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1 Junega M, MD, Kargas GA, MD, Miller D, CRNA, Perry E, MD, Gupta B, MD, Pajel V, MD, Botic Z, MD, and Rigor B, MD. Comparisons of Epidural Catheters Induced Parasthesia in Parturients. Poster presentation from the American Society of Regional Anesthesia (A.S.R.A.) meeting; presented April, 1995 - Orlando, FL. *Regional Anesthesia* 1995; 20 (Suppl.):4.

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Caution: U.S. Federal Law limits this device to sale by or on order of a physician. Contents of unopened, undamaged package are sterile. Contains no medication. Disposable. Refer to package insert for current warnings, precautions, and instructions for use.

Contact Arrow International, Inc. for reference information on the enclosed.

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EPP-C 08/01 5M CZ



## Arrow FlexTip Plus® Epidural Catheter

### Reduces complications in the epidural space.

The Arrow FlexTip Plus® combines excellent kink-resistance and superior tensile strength with a soft, flexible tip.

### Provides necessary firmness while maintaining patency.

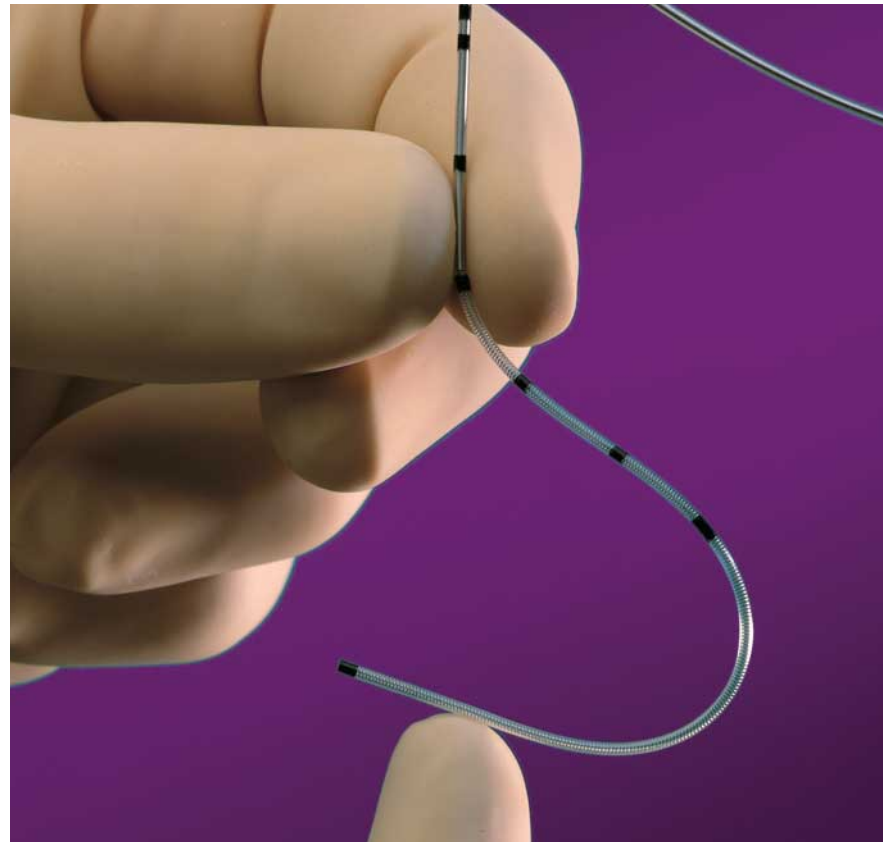
- The catheter's unique coil-reinforced body has been engineered to deliver the firmness needed for insertion while providing resistance to kinking or collapsing. Even the coil-reinforced tip is virtually kink-proof.

### Reduced paresthesia risk.

- The extremely soft distal tip reduces the risk of paresthesia and inadvertent penetration of blood vessels or the dura, which can misdirect delivery of anesthetics.<sup>1,2</sup>

### Latex free.

- Arrow FlexTip Plus® is made of latex-free materials, eliminating the potential risks associated with allergic reactions to latex.
- Latex-free SnapLock™ adapter also included.



Arrow FlexTip Plus® with soft distal tip

### Simpler and faster epidural procedures.



Flashback Windows

- Because of the catheter's unique design, no stylet is required for insertion.
- Two flashback windows in the catheter body permit easy visualization of blood or CSF upon aspiration.
- The catheter is highly radiopaque.
- High quality centimeter markings are easy to read.

### Attaching the adapter is a snap.



Latex-free SnapLock™ Adapter

- Arrow's SnapLock™ adapter attaches to the catheter with a single "snap".
- Designed to stay securely in place without impeding flow.

## Arrow TheraCath® Epidural Catheter



Arrow TheraCath®

### Provides exceptional long-term patency.

The Arrow TheraCath® is designed for longer-term and specialized pain management procedures where patency is an important factor.

### Efficient and effective long-term pain management.

- The highly kink-resistant catheter provides high compression strength to resist collapsing.
- Features a smooth, durable polymer exterior and an inner spiral-wound stainless steel helix.
- These elements combine to provide patency over extended use and the column strength needed for directionability.

### Uniform disbursement of anesthetic.

- The stainless steel helical wire is identical to a soft-tip spring-wire guide at the distal tip. Anesthetic is injected through the internal lumen of the jacketed spring-wire helix and is uniformly dispersed through the expanded windings at the uncovered distal tip.

### Simplified placement.

- A removable stylet, plus a spring-wire guide, simplify and enhance positive placement.

### Adapter can be secured without collapse of the lumen.

- A simple-to-use SnapLock™ catheter/syringe adapter can be secured positively to the catheter without its collapse.

# Epidural Catheter Guidelines

## Nursing Care Guidelines for Epidural Catheters

The delivery of medications, maintenance, and care of epidural catheters should be established in organizational policy and procedure and in accordance with the state Nurse Practice Act.

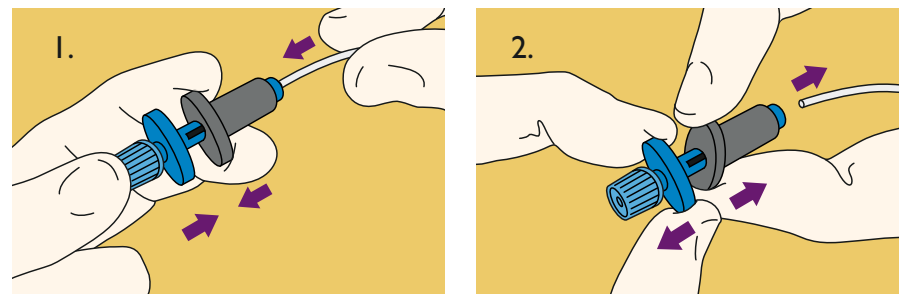
1. Epidural catheters should be labeled to distinguish them from venous or arterial catheters. (Arrow International, Inc. provides a fluorescent pink identification label that should be applied to the catheter.)
2. Nursing responsibilities may include patient education, site care, dressing change, medication administration, and catheter removal. (This may be an established institution policy and procedure.)
3. During access and maintenance procedures aseptic technique should be used. Mask and sterile gloves should be worn for access and maintenance procedures.
4. Continuous epidural infusions should be administered via an electronic infusion device.
5. Medication infused via an epidural device must be preservative free.
6. Alcohol is contraindicated for site preparation or when accessing the device because of the potential for migration of alcohol into the epidural space which may cause nerve damage. A 0.2µ filter without surfactant should be utilized for medication administration.
7. The epidural catheter should be aspirated to ascertain the absence of spinal fluid prior to administration of medication.
8. The patient should be accessed for therapeutic response. Ineffective pain control should be reported to the physician because the catheter may be improperly positioned or the dosage of medication may require adjustment.
9. A physician's order is required for epidural catheter removal. Hospital policy will determine who may remove the epidural catheter (i.e. physician, nurse anesthetist, RN).

NOTE: Consult product instructions for use for details of procedure. This is to be used as a guide only.

Reference: Intravenous Nursing Standards of Practice.

Principle: Epidural Catheters/ports/pumps allow for administration of medication into the epidural space.

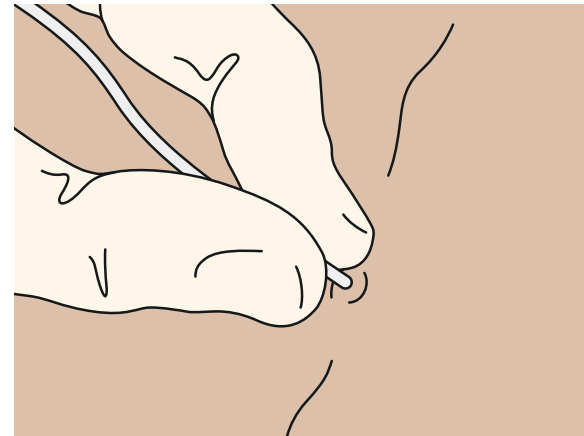
### SnapLock™ Adapter Usage



1. Closing SnapLock™ adapter after catheter is inserted.
2. How to turn and open SnapLock™. See Instructions For Use for detailed instructions.

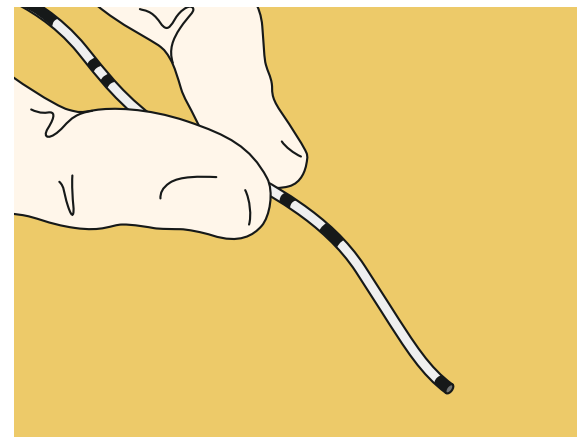
## Guidelines for Epidural Catheter Removal

1. Remove the catheter by placing the patient in the same position that was used to insert the catheter, such that the vertebral interspaces are open.
2. Grasp the catheter close to the skin and remove slowly with a steady, constant pull force.



Grasp catheter close to insertion point.

NOTE: Under no circumstance should *extreme* force be applied to the catheter during removal.



Inspect distal tip for continuity.

**PRECAUTION:** After removal of catheter, inspect distal tip for continuity. The black dot on the tip will signify that the entire catheter has been retrieved from the epidural space.

3. Cover puncture site with suitable dressing.

## Suggestions for Epidural Catheters That Resist Removal

The outer surface of the FlexTip Plus® Epidural Catheter is a very soft polyurethane material. This softness offers many clinical advantages. Occasionally users encounter a catheter that is more difficult to remove and requires extra care.

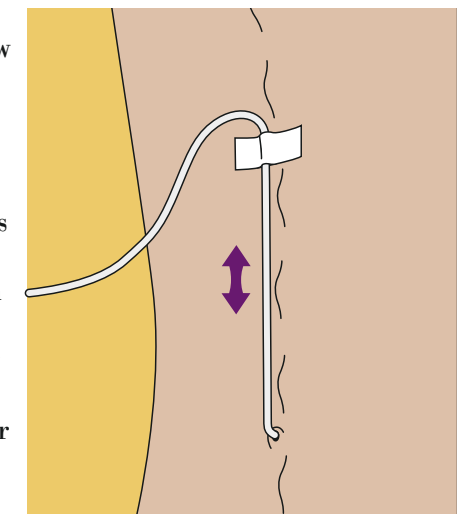
The FlexTip Plus® Catheter can withstand significant stretching, but it is not unbreakable. Clinicians should acclimate themselves with the catheter's elongation properties and breakpoint. Resistance is a signal that the patient's anatomy is applying untypical force to the indwelling portion of the catheter.

**WARNING:** During catheter removal, if resistance is encountered or if the catheter stretches excessively, **STOP**, reposition the patient to open the vertebral interspaces and attempt removal using the following procedure.

If the catheter cannot be withdrawn with minimal force, Arrow International, Inc. recommends the following:

1. Reposition the patient and/or allow the patient to relax for several minutes/hours and attempt removal later. Studies<sup>1</sup> have proven that the force required to remove an epidural catheter can vary dramatically depending on patient's positioning. Arrow recommends that the patient be placed in the same position for removal as they were for placement.

2. In conjunction with suggestion #1, several clinicians have described how they successfully stretched the catheter slightly and then taped it to the skin, thus creating permanent tension on the catheter. As the patient relaxes and moves, the forces holding the indwelling portion of the catheter diminish and the tension on the catheter (created by stretching and taping) cause it to automatically retract from the epidural space. This procedure should make it easier to remove, depending on how much catheter is indwelling and how much the catheter is stretched prior to taping it down. This technique may be repeated if necessary.



Tension applied to catheter and taped.

3. Some clinicians have found that injecting a small bolus of preservative free saline while removing the catheter has helped. This technique is documented in the literature.<sup>2</sup>

<sup>1</sup> Blackshear RH, MD, Gravenstein N, MD, and Radson E, RN, BSN. Tension applied to lumbar epidural catheters during removal is much greater with patient sitting versus lying. *Anesthesiology*. September 1991;75(No. 3A):A833.

<sup>2</sup> Gadalla F. Removal of a tenacious epidural catheter. *Anesth Analg*. 1992;75:1070. Letter.