

ARROW DIAGNOSTIC AND DRAINAGE PRODUCTS

More options for easier, less traumatic procedures



Arrow's innovative products are inspired by clinicians, based on the results they need to achieve. We design every product to be as easy to use as it is effective, and precisely manufacture each one with uncompromising quality. As a result, clinicians trust Arrow's technology to enable safer procedures and deliver superior patient outcomes.
For more information see www.arrowintl.com.

ARROW DIAGNOSTIC AND DRAINAGE PRODUCTS

MORE OPTIONS FOR EASIER, LESS TRAUMATIC PROCEDURES

Arrow Diagnostic and Drainage Product kits save time when it matters most, to minimize trauma to the patient. In trauma situations, you need fast, effective solutions at your fingertips. Arrow Diagnostic and Drainage Products let you perform a variety of procedures with high levels of ease and efficiency. Each product kit is designed to save you critical seconds, helping to reduce risk and improve patient outcomes.

Arrow Diagnostic and Drainage Products offer you more options for performing easier procedures. Included in this line are simpler alternatives to traditional techniques that help to minimize patient trauma.

You will find Arrow Diagnostic and Drainage Products incorporate many of the unique features you have come to expect from Arrow, the leader in critical care catheter technology. Kink-resistant catheters featuring polyurethane construction and easy-to-read, precise calibrations are standard on many products. HANDS OFF®, Cath-Gard®, Arrow-Flex®, and Blue FlexTip® technologies are other Arrow innovations enhancing these products.

Contact your Sales Representative for more information on any of the Diagnostic and Drainage Products featured in this brochure.

ARROW PNEUMOTHORAX KIT

FOR PERCUTANEOUS ASPIRATION OF SIMPLE OR SPONTANEOUS PNEUMOTHORAX

ARROW OFFERS A SIMPLER, LESS TRAUMATIC WAY TO TREAT SIMPLE OR SPONTANEOUS PNEUMOTHORAX

Replace the traditional trocar chest-tube technique with a percutaneous method to treat pneumothorax and restore proper lung function with the Arrow Pneumothorax Kit.

This kit contains an 8 Fr. Polyurethane catheter-over-needle device and syringe. The catheter is inserted percutaneously in an easily learned, easily performed procedure. The depth marker on the catheter helps in proper positioning of the air aspiration holes by indicating their position relative to the skin.

The benefits of the less traumatic percutaneous placement are matched by the excellent indwelling characteristics of the kink-resistant polyurethane catheter material. It softens in situ, so the device can remain in place until air removal is complete.

REDUCES COST, MINIMIZES PATIENT TRAUMA

Another significant benefit in today's health care climate is the reduced cost compared to the more invasive trocar procedure. Due to the small size of the pneumothorax catheter, there is less patient discomfort with percutaneous catheterization for treating simple pneumothorax.

Each Pneumothorax Kit comes as a complete sterile kit including suture clamp, Heimlich valve, latex connection tubing, and extension line.



ARROW PNEUMOTHORAX KIT PRODUCT NO. AK-01500

QUANTITY	DESCRIPTION
1	8 Fr. x 6.44" Polyurethane Catheter over 18 Ga. Needle, and 5 cc Syringe
3	Povidone Iodine Swabsticks
1	10 cc Syringe
1	22 Ga. x 1-1/2" (3.81 cm) Needle
1	25 Ga. x 1" (2.54 cm) Needle
2	5 ml Ampules Lidocaine HCl 1%°
2	1" x 3" Bandage
5	4" x 4" Gauze Pads
1	Disposable #11 Blade Scalpel
1	Fenestrated Drape with Adhesive Backing
1	CSR Wrap
1	Heimlich valve
1	Catheter Clamp with Fastener
1	Suture: 2-0 Silk with Straight Needle
1	One-Way Stopcock
1	Extension Tubing with Adapter

ARROW PNEUMOTHORAX SET PRODUCT NO. AI-01500-E

QUANTITY	DESCRIPTION
1	8 Fr. x 6.44 Polyurethane Catheter over 18 Ga. Needle and 5 cc Syringe
1	Heimlich Valve
1	Latex Extension Tube
1	Tubing with Luer-Lock Hub and Adapter
1	Disposable #11 Blade Scalpel
1	One-Way Stopcock
1	Catheter Clamp with Fastener

ARROW TRAYS

LIVER BIOPSY TRAY & LARGE VOLUME PARACENTESIS TRAY



EVERYTHING YOU NEED IN ONE CONVENIENT TRAY

Arrow offers a kit for performing liver biopsies. The tray design is well-organized, providing an optimum fit of components and needle disposal. The complete tray, which is sterile and disposable, contains a wide variety of items you'll want to have at hand. Included is a Klatskin needle with an increased inner diameter which yields a larger specimen size. Also contained in the tray is a unique obturator which provides Jamshedi¹ type specimen retention as an optional procedure.

ARROW LIVER BIOPSY TRAY PRODUCT NO. AK-00370

QUANTITY	DESCRIPTION
1	16 Ga. x 3/4" (1.91 cm) Skin Puncture Trocar
2	5 ml Ampule Lidocaine HCl 1%
1	21 Ga. x 1-1/2" (3.81 cm) Needle
1	25 Ga. x 1" (2.54 cm) Needle
1	16 Ga. Liver Biopsy Needle with Adjustable Stop
1	Specimen Obturator
1	21 Ga. x 1-1/2" (3.81 cm)/10 cc Syringe
1	10 cc Syringe
1	10 cc Ampule Bacteriostatic Saline
1	1" x 3" Plastic Bandage
1	Disposable #11 Blade Scalpel
6	3" x 3" Gauze Pads
1	Specimen Container with Label
3	Povidone Iodine Swabsticks
1	Fenestrated Drape with Adhesive Backing
1	CSR Wrap
2	Alcohol Wipes
1	SharpsAway® Disposal Cup
1	Medicine Cup

ALTERNATIVE COMPONENTS OFFER FLOW CHOICES

- Rapid flow vacuum bottle tubing shortens procedure time while providing control
- Generous selection of components allows choice of drainage methods
- Polyurethane catheter with removable introducer needle and three way stopcock helps assure patient safety and directed flow
- Comprehensive array of sterile components permits immediate use

ARROW LARGE VOLUME PARACENTESIS KIT PRODUCT NO. AK-00376

QUANTITY	DESCRIPTION
1	Vial: Vacutainer (EDTA)
3	Vial: Specimen
1	Polyurethane Centesis Device: 8 Fr. x 5" Catheter over 18 Ga. x 7-1/2" (19 cm) RW Needle with 3-way Stopcock, Self-Sealing Valve and 5 cc Luer-Lock Syringe
1	Introducer Needle: 20 Ga. x 3" (7.62 cm)
2	Injection Needles: 22 Ga. x 1-1/2" (3.81 cm)
1	Injection Needle: 25 Ga. x 1" (2.54 cm)
1	Syringe: 10 cc Luer-Lock
1	Syringe: 60 cc Luer-Lock
1	3 Swabstick Foil Pack 10% Povidone Iodine
2	5 ml Ampules HCl 1% Lidocaine Solution
1	CSR Wrap
1	Dressing: Elastoplast 7.62 c. x 2.54 cm
5	Gauze Pads: 4" x 4"
1	Tubing Set with Aspiration/Discharge Device
1	Drainage Bag
1	Drape: 24" x 30" with 4" fenestration, with adhesive
1	Scalpel: #11
1	Dust Cap: Non-Vented
1	Tubing Set: Drainage

¹Greenwald R, Chiprut RO, Shiff ER. Percutaneous liver biopsy using a large caliber disposable needle. *Digestive Diseases*. 1997; 22: 1109-1114.

ARROW-CLARKE™ THORACENTESIS CATHETER

WITH PLEURA-SEAL® VALVE

The Arrow-Clarke Thoracentesis Catheter offers protection from air aspiration during needle removal and excellent fluid removal.

THE FIRST CATHETER DESIGNED ESPECIALLY FOR THORACENTESIS

The Arrow-Clarke Thoracentesis Device was the first catheter designed especially for thoracentesis.² It's an easy-to-use catheter-over-needle that offers you a choice of two convenient ways to evacuate fluid.

CLOSED-CIRCUIT LIQUID REMOVAL WITH TWO FLUID OPTIONS

Fluid removal is superior to single-orificed catheters, since the Arrow-Clarke 8 Fr. Multi-orificed catheter speeds removal of even viscous pleural fluids or blood. You have two choices for fluid withdrawal: a high pressure tubing set with roller clamp and needle for use with a vacuum bottle (not included), or a unique syringe pump system and drainage bag.

The unique features of the syringe pump system permit aspirating for a safer thoracentesis procedure than is possible with other techniques.

SELF-SEALING PLEURA-SEAL VALVE FOR RELIABLE OCCLUSION

To help minimize the possibility of needle/catheter-induced pneumothorax, the Arrow-Clarke Thoracentesis Device incorporates the unique Pleura-Seal valve.

It features a self-sealing valve that closes upon needle removal. This reduces potential risk of pneumothorax associated with open catheters which rely on thumb or finger occlusion.

ARROW'S POLYURETHANE MATERIAL AND OTHER BENEFITS

The Arrow-Clarke Thoracentesis Catheter is available with the time-proven patient advantages of Arrow's polyurethane material. A side port also allows the infusion of chemotherapeutic or sclerosing agents.

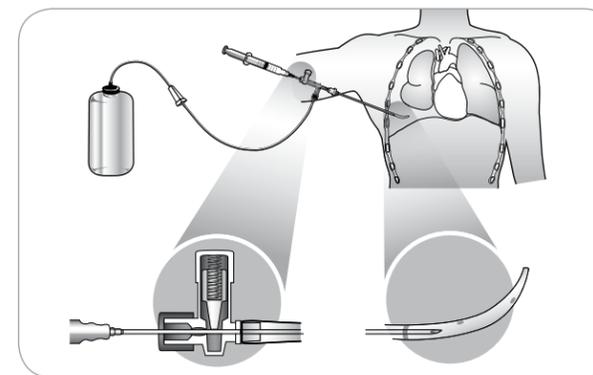


Figure 1

To remove fluid with a vacuum bottle, the tubing needle and roller clamp should be attached as shown in *Figure 1*. With the tubing and needle inserted in a vacuum bottle, open the roller clamp until the desired flow is obtained.

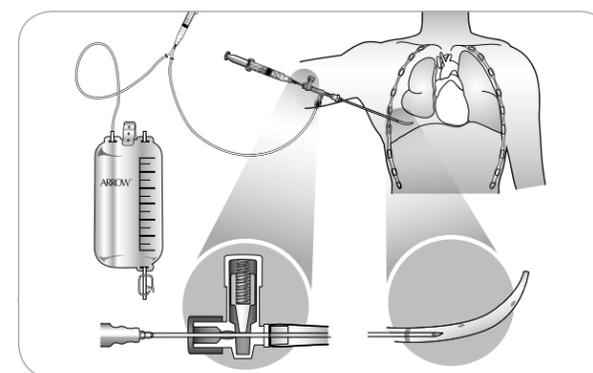


Figure 2

To use the syringe, connect tubing and collection bag as shown in *Figure 2*. With the stopcock opened, withdraw the syringe plunger to aspirate fluid and depress the syringe plunger to expel the fluid through the second one-way valve into the collection bag. Repeat as necessary.

²Clark JM. "A new instrument for thoracentesis." *Surgery, Gynecology and Obstetrics*. 1984; December; 587-588.

CAUTION: Do not suture directly to outside of diameter of catheter tubing. Alcohol and acetone can weaken polyurethane material. Therefore, care should be taken when using high concentration of alcohol or acetone when performing routine catheter care and maintenance.

ARROW-CLARKE CENTESIS KIT PRODUCT NO. AK-01000

QUANTITY	DESCRIPTION
1	Polyurethane Centesis Device, including 8 Fr. x 5" Catheter over 18 Ga. Needle with 3-way Stopcock, Self-Sealing Valve and 5 cc Syringe
1	22 Ga. x 1-1/2" (3.81 cm) Needle
1	25 Ga. x 1" (2.54 cm) Needle
1	10 cc Syringe
5	4" x 4" Gauze Pads
1	Disposable Scalpel (#11 Blade)
2	5 ml Ampules Lidocaine, HCl 1% Lidocaine Solution
3	Povidone-Iodine Swabsticks, 10%
3	Numbered Specimen Tubes
2	1" x 3" Bandages
1	Fenestrated Drape with Adhesive Backing
1	CSR Wrap
<i>To Remove Fluid with 60 cc Syringe</i>	
1	60 cc Syringe
1	Tubing Set with Aspiration/Discharge Device
1	Drainage Bag
<i>To Remove Fluid with Vacuum Bottle</i>	
1	Tubing Set with Roller Clamp and 18 Ga. Needle (Vacuum Bottle not included)

ARROW-CLARKE CENTESIS SET PRODUCT NO. CS-01000

QUANTITY	DESCRIPTION
1	Polyurethane Centesis Device, including 8 Fr. x 5" Catheter over 18 Ga. Needle with 3-way Stopcock, Self-Sealing Valve and 5 cc Syringe
1	5 cc Syringe
1	Disposable Scalpel (#11 Blade)
1	Tubing Set with Roller Clamp and 18 Ga. Needle (Vacuum Bottle not included)

ARROW-CLARKE CENTESIS SET PRODUCT NO. AK-01000-T

QUANTITY	DESCRIPTION
1	FEP Centesis Device, including 8 Fr. x 5" Catheter over 18 Ga. Needle with 3-way Stopcock, Self-Sealing Valve and 5 cc Syringe
1	Injection Needle: 22 Ga. x 1-1/2" (3.81 cm)
1	Injection Needle: 25 Ga. x 1" (2.54 cm)
1	Syringe: 10 cc Luer-Lock
1	Syringe: 5 cc Luer-Lock
1	Syringe: 60 cc Luer-Lock
1	3 Swabstick Foil Pack 10% Povidone-Iodine
2	5 ml Ampules HCl 1% Lidocaine Solution
1	CSR Wrap
5	Gauze Pads: 4" x 4"
2	1" x 3" Bandages
1	Tubing Set: Drainage
1	Tubing Set with Aspiration/Discharge Device
1	Drainage Bag
1	Fenestrated Drape with Adhesive Backing
1	Scalpel: #11



ARROW CAVITY DRAINAGE CATHETERIZATION KIT

ARROW OFFERS A CHOICE OF TECHNIQUES WITH EXCLUSIVE BLUE FLEXTIP AND UNIQUE INTERNAL TIP DESIGN TO IMPROVE PLACEMENT

With the 14 Fr. Arrow Cavity Drainage Catheterization Kit, you can place the catheter for drainage with the Seldinger technique. Arrow's polyurethane catheter with the exclusive Blue FlexTip and unique internal tip design help make placement easier.

LARGER TAPERED CONNECTING HUB

Allows convenient hook up to most "universal" drainage extension line connectors.

SIDE ARM WITH FLOW CONTROL CLAMP

Provides flow control for infusions, e.g., sclerosing agents into chest cavity after drainage is completed to treat malignant pleural effusions.

ARROW BLUE FLEXTIP EASES PLACEMENT AND REDUCES COMPLICATION RISK

Arrow Blue FlexTip drainage catheters feature a unique internal tip design to help make insertion easier. The tip design lets you use the metal insertion cannula to push the catheter through resistant tissue by applying the insertion force right at the tip, where you need it most.

The Blue FlexTip, featured on many other Arrow catheters, is notably softer and more pliant. It can deflect while maintaining patency should it come in contact with surrounding tissue or vessel walls. In addition, Arrow offers you a choice of straight and curved catheters, depending on the anatomy involved. To further aid placement all components have centimeter markings, including the dilator, and the catheter body is radiopaque for easier visualization.

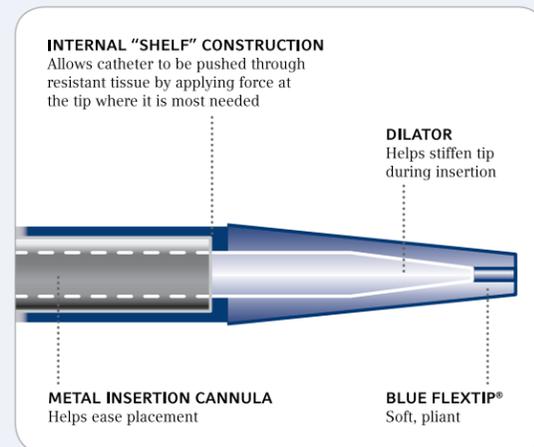
ENGINEERED FOR HIGH DRAINAGE CAPACITY

Arrow's polyurethane is stronger than silicone, allowing for thinner catheter walls. The higher inside-to-outside diameter ratio of polyurethane permits larger internal diameter and increased drainage capacity.

SELDINGER MADE SIMPLER WITH THE ARROW RAULERSON SYRINGE SYSTEM

The advantage in placement ease of the Arrow Cavity Drainage Catheterization Kits comes from the use of the Arrow Raulerson Syringe to place the spring-wire guide. Using the Arrow Raulerson Syringe, Arrow Advancer, and cm-marked spring-wire guide included in the kit, the wire guide can be inserted directly into the unique hollow plunger/barrel, through the introducer needle, and into the cavity.

It's simpler and faster for the physician, and can be less traumatic for patients. And the Arrow Raulerson Syringe also serves as a fluid containment device to help protect the clinician from exposure to body fluids.



Unique internal tip design

ARROW PERCUTANEOUS CAVITY DRAINAGE CATHETERIZATION KIT PRODUCT NO. AK-01600

QUANTITY	DESCRIPTION
1	Cavity Drainage Assembly containing: One: 14 Fr. x 9" (22.9 cm) Curved Blue FlexTip Catheter One: Straightening Cannula One: Inner Dilator
1	.035" (.89 mm) dia. X 26-13/16" (68 cm) Dual Purpose Marked Spring-Wire Guide (Straight Soft Tip on One End - "J" Tip on Other) with Arrow Advancer
2	Prep Sponge Swabs
4	4" x 4" Gauze Pads
1	Fenestrated Drape with Adhesive
1	Packette Povidone-Iodine Solution, 1 oz.
1	CSR Wrap
1	Foam Pad
1	Lidocaine HCl, 5m. 1% Ampule
1	5 cc Arrow Raulerson Syringe
1	12 Fr. x 7" (17.78 cm) Marked Pre-Dilator
1	18 Ga. x 2-1/2" (6.35 cm) XTW Introducer Needle
1	18 Ga. x 6-1/2" (16.5 cm) Introducer Needle
1	22 Ga. x 1-1/2" (3.81 cm) Needle
1	25 Ga. x 1" (2.54 cm) Needle
1	Disposable Scalpel (#11 Blade)
1	3 cc Luer-Lock Syringe
1	Straight Nylon Suture
1	18 Ga. x 1-1/2" (2.54 cm) Introducer Needle
1	Catheter Plug
1	Adjustable Suture Clamp

ARROW PERCUTANEOUS CAVITY DRAINAGE CATHETERIZATION SET PRODUCT NO. AI-01600

QUANTITY	DESCRIPTION
1	Cavity Drainage Catheter Assembly containing: One: 14 Fr. x 9" (23 cm) Curved Blue FlexTip Catheter One: Straightening Cannula One: Inner Dilator
1	.035" (.89 mm) dia. X 26-13/16" (68 cm) Dual Purpose Marked Spring-Wire Guide (Straight Soft Tip on One End - "J" Tip on Other) with Arrow Advancer
1	12 Fr. x 7" (17.78 cm) Pre-Dilator
1	18 Ga. x 2-1/2" (6.25 cm) Introducer Needle
1	18 Ga. x 6-1/2" (16.5 cm) Introducer Needle
1	Disposable Scalpel (#11 Blade)
1	5 cc Arrow Raulerson Syringe
1	Adapter Plug
1	CSR Wrap

ARROW PERCUTANEOUS CAVITY DRAINAGE CATHETERIZATION KIT PRODUCT NO. AK-01601

QUANTITY	DESCRIPTION
1	Cavity Drainage Assembly containing: One: 14 Fr. x 9" (22.9 cm) Blue FlexTip Catheter One: Straightening Cannula One: Inner Dilator
1	.035" (.89 cm) dia. x 26-13/16" (68 cm) Dual Purpose Marked Spring-Wire Guide (Straight Soft Tip on One End - "J" Tip on Other) with Arrow Advancer
2	Prep Sponge Swabs
4	4" x 4" Gauze Pads
1	Fenestrated Drape with Adhesive
1	Packette Povidone-Iodine Solution, 1 oz.
1	CSR Wrap
1	Foam Pad
1	25 Ga. X 1" (2.54 cm) Needle
1	Lidocaine HCl, 5m. 1% Ampule
1	5 cc Arrow Raulerson Syringe
1	12 Fr. x 7" (17.78 cm) Marked Pre-Dilator
1	18 Ga. x 2-1/2" (6.35 cm) XTW Introducer Needle
1	18 Ga. x 6-1/2" (16.5 cm) Introducer Needle
1	Disposable Scalpel (#11 Blade)
1	22 Ga. x 1-1/2" (3.81 cm) Needle
1	3 cc Luer-Lock Syringe
1	Straight Silk Suture
1	18 Ga. x 1-1/2" (2.54 cm) Introducer Needle
1	Catheter Plug
1	Adjustable Suture Clamp



ARROW BALLOON CHOLANGIOGRAPHY CATHETERIZATION SETS

WITH THE ARROW-KARLAN™ BALLOON CHOLANGIOGRAPHY CATHETER

CHOLANGIOGRAPHY DURING LAPAROSCOPIC CHOLECYSTECTOMY PROCEDURES CAN BE FAST AND SIMPLE

Arrow, the leader in balloon cholangiography catheterization, offers balloon cholangiography catheterization sets that facilitate easy and reliable catheter placement and save time in performing a cholangiogram.

Cholangiography during laparoscopic cholecystectomy procedures is strongly recommended^{3,4} as a means of visualizing the biliary anatomy, as well as excluding the presence of choledocholithiasis and identifying any anomalies in the common duct and cystic duct. An editorial by Dr. Kenneth A. Kern in the *American Journal of Surgery* goes still further. It suggests that cholangiograms be performed as a matter of routine to reduce potential litigation.⁵

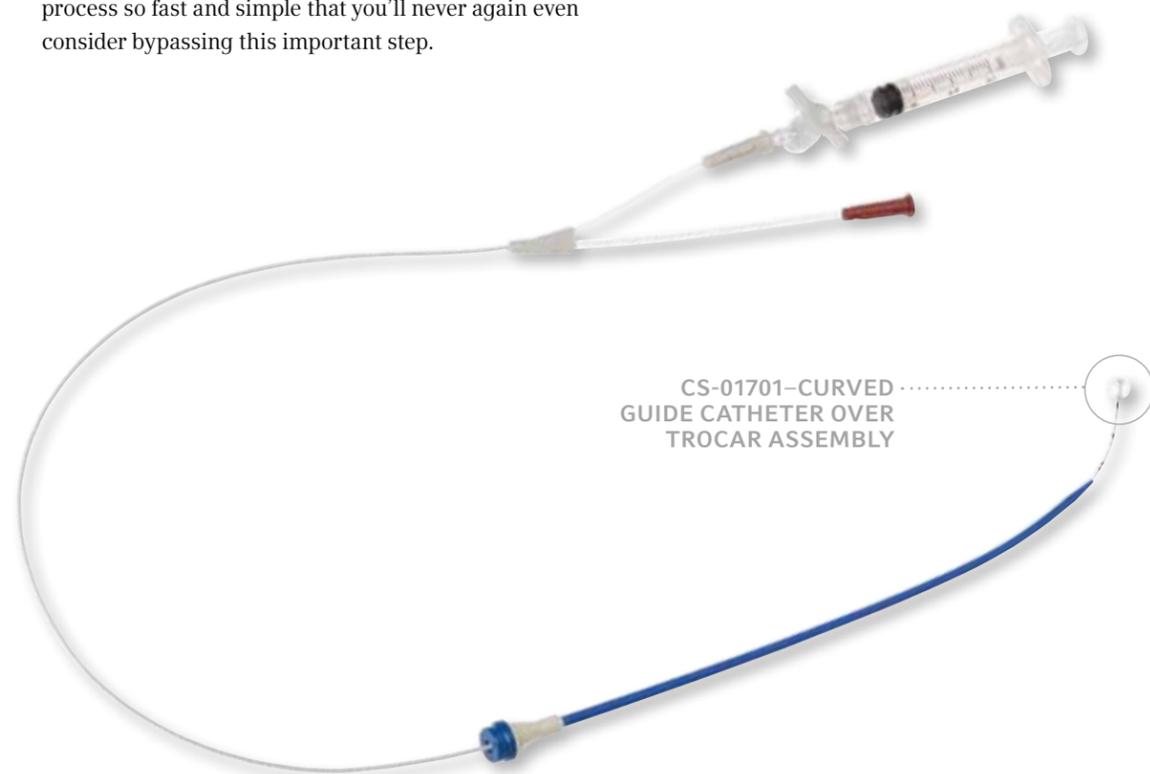
Cholangiograms have been difficult to obtain during laparoscopic procedures due to the mechanics of introducing a catheter into the cystic duct. That's changed. Arrow cholangiography catheterization sets make the process so fast and simple that you'll never again even consider bypassing this important step.

A CHOICE OF INSERTION TECHNIQUES, ONLY FROM ARROW

We offer two procedurally complete balloon cholangiography catheterization sets to suit your preferred technique:

The introducer set (CS-01700) includes a 5 mm diameter metal cannula, an adjustable curved-tipped guiding catheter, and a 4 Fr. x 60 cm balloon cholangiography catheter, all for placement through an existing abdominal port. The angle of the rigid guiding catheter can be adjusted, allowing easy catheter placement into the cystic duct opening. A .018" dia. x 85 cm spring-wire guide is available, packaged separately (AW-01700) to aid in insertion.

The percutaneous set (CS-01701), which can be inserted directly through the abdomen, includes a guiding catheter over trocar, and a 4 Fr. x 60 cm balloon cholangiography catheter for insertion wherever desired. A .018" dia. x 85 cm spring-wire guide is packaged separately (AW-01700) to assist with the insertion. The guiding catheter has a self-sealing valve to prevent loss of gas during trocar removal and maintains a slight curve for easier placement.



The balloon eliminates the need to clamp the catheter by sealing the cystic duct and preventing backup of the contrast medium. It also holds the catheter in place. Both catheters feature a 2 mm-wide band located just proximal to the balloon to help define catheter position in the cystic duct.

Also, the catheters are non-radiopaque so as not to obscure visualization. And, when reinforced by the spring-wire guide, they have the degree of firmness needed for easier insertion into the cystic duct.

With Arrow Balloon Cholangiography Catheterization Sets, this procedure can be performed efficiently, encouraging every surgeon to enjoy the diagnostic benefits of cholangiograms. For further information, contact your local Sales Representative.



CS-01700 with metal cannula



CC-01700

ARROW-KARLAN BALLOON CHOLANGIOGRAPHY CATHETERIZATION SET PRODUCT NO. CS-01700

QUANTITY	DESCRIPTION
1	4 Fr. x 60 cm Karlan Balloon Catheter
1	5 mm Introducer Cannula with Curved Guide Catheter Assembly
1	1-1/4 cc Syringe
1	3-way Stopcock
1	CSR Wrap

ARROW-KARLAN BALLOON CHOLANGIOGRAPHY CATHETER PRODUCT NO. CC-01700

QUANTITY	DESCRIPTION
1	4 Fr. x 60 cm Karlan Balloon Catheter
1	1-1/4 cc Syringe

ARROW-KARLAN BALLOON CHOLANGIOGRAPHY CATHETERIZATION SET PRODUCT NO. CS-01701

QUANTITY	DESCRIPTION
1	Curved Guide Catheter over Trocar Assembly
1	4 Fr. x 60 cm Karlan Balloon Catheter
1	1-1/4 cc Syringe
1	3-way Stopcock
1	CSR Wrap

³ Reddick EJ, MD, Olsen DO, MD. Laparoscopic Laser Cholecystectomy A Comparison with Mini-Lap Cholecystectomy. *Surgical Endoscopy*. 1989; 3: 131-133.

⁴ Zucker KA, MD, Bailey RW, MD, Gadacz TR, MD, Imbembo AL, MD. Laparoscopic Guided Cholecystectomy. *Amer. Jnl. Surg.* 1991; 161: 36-44.

⁵ Kern KA, MD. Risk Management Goals Involving Injury to the Common Bile Duct During Laparoscopic Cholecystectomy. *Amer. Jn. Surg.* 1992; 163: 551-552.

Teleflex is a global provider of medical products designed to enable healthcare providers to protect against infections and improve patient and provider safety. The company specializes in products and services for vascular access, respiratory, general and regional anesthesia, cardiac care, urology and surgery. Teleflex also provides specialty products for device manufacturers.

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