

Products for Percutaneous Nephrolithotomy

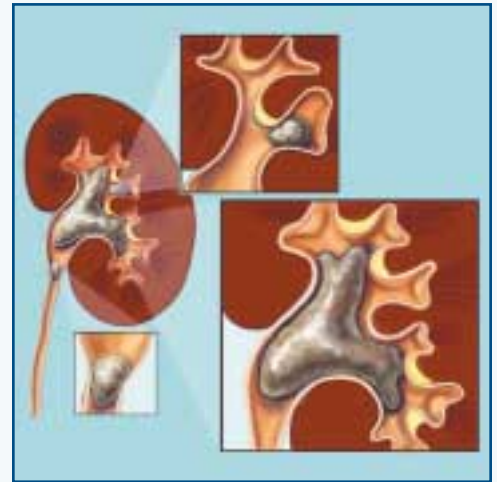
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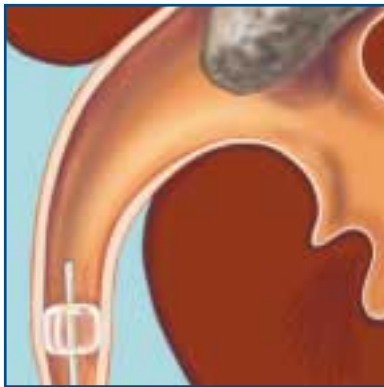
Percutaneous Nephrolithotomy

Percutaneous nephrolithotomy provides the urologist with an important treatment option for patients with:

- Stones located in the kidney
- Patients with urinary tract anomaly
- Stone locations that preclude effective ESWL or endoscopic retrieval



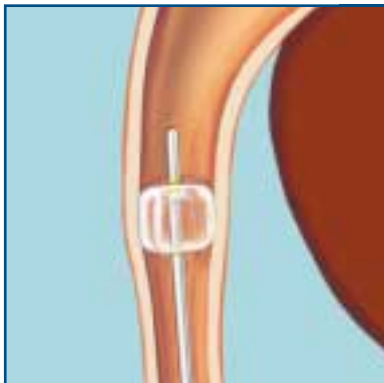
A wide variety of instrumentation is required for percutaneous nephrolithotomy. Each case will present unique challenges. It is imperative that instrumentation is properly selected to match the requirements of the case. This brochure will discuss the selection and use of Boston Scientific Urology instruments required for percutaneous access to the urinary tract for stone retrieval and the establishment of nephrostomy drainage.



1. Advance Guidewire and Occlusion Balloon

A guidewire is advanced retrograde into the renal pelvis. An occlusion balloon is advanced to the desired position. The guidewire is removed and the balloon inflated.

Description	Order Number
.025" Stiff Shaft Glidewire® w/Straight Tip (Box 5)	M006 6301071
.025" Stiff Shaft Glidewire w/Angled Tip (Box 5)	M006 6301081
.035" Glidewire w/Straight Tip (Box 5)	M006 6301001
.035" Glidewire w/Angled Tip (Box 5)	M006 6301021
.035" Sensor™ Guidewire w/Angled Tip (Box 5)	M006 6703061
.035" Sensor Guidewire w/Straight Tip (Box 5)	M006 6703051

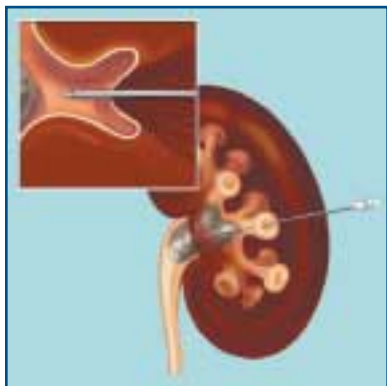


2. Opacify the Collecting System

The collecting system is opacified with a retrograde injection of contrast solution. Air can be injected to aid in identifying posterior calyces.

Description	Order Number
Occluder™ Occlusion Balloon 5Fr Catheter; 26Fr Balloon, 65 cm length	M006 2201070
Occluder Occlusion Balloon 5Fr Catheter; 26Fr Balloon, 100 cm length	M006 2201080
Occluder Occlusion Balloon 7Fr Catheter; 34Fr Balloon, 65 cm length	M006 2201090
Occluder Occlusion Balloon 7Fr Catheter; 34Fr Balloon, 100 cm length	M006 2201100

Percutaneous Nephrolithotomy

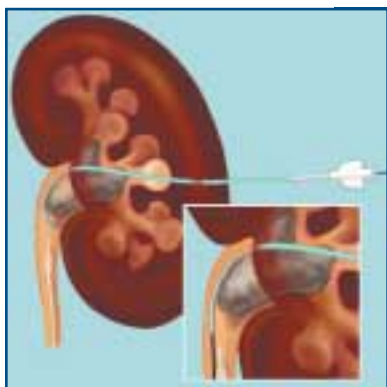


3. Puncture Calyx and Place Guidewire

An 18 gauge, 2 piece entry needle is advanced in a straight pathway into the selected calyx and the inner stylet is removed. Aspiration of contrast material and/or urine through the cannula confirms access to the collecting system.

The Occluder™ Occlusion Balloon is deflated and a .035" Glidewire® Guidewire advanced through the cannula into the kidney and down the ureter. The Glidewire Guidewire's hydrophilic coating provides a lubricious surface for smooth passage through resistant narrowings, tight obstructions and tortuous tracts.

Description	Order Number
TLA Introducer and 19 Gauge Needle and Sheath Set	M006 7001200
12 cm Introducer and 18 Gauge Needle Set	M006 7001210
20 cm Introducer and 18 Gauge Needle Set	M006 7001220
Mardis II Single Puncture Introducer Set	M006 7001010

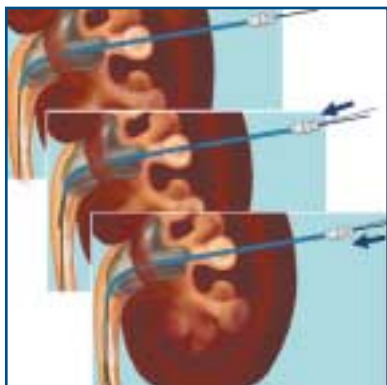


4. Place Guidewire: Difficult Anatomy

If entering the ureter proves difficult, the Imager™ II torqueable catheters can be used to direct the guidewire into the ureter.

First, an 8 French dilator is passed over the Glidewire Guidewire. Then an Imager II Torque Catheter is used to access the ureter. Now the Glidewire Guidewire can be advanced down the ureter.

Description	Order Number
Imager II C1 65 cm Torqueable Catheters (Box 5)	M006 4003001
Imager II C2 65 cm Torqueable Catheters (Box 5)	M006 4003011
Imager II Straight 65 cm Torqueable Catheters (Box 5)	M006 4003021
Imager II Bern 65 cm Torqueable Catheters (Box 5)	M006 4003031
Imager II JB1 65 cm Torqueable Catheters (Box 5)	M006 4003041
Imager II Straight 100 cm Torqueable Catheters (Box 5)	M006 4004021
Imager II Bern 100 cm Torqueable Catheters (Box 5)	M006 4004031
Imager II JB1 100 cm Torqueable Catheters (Box 5)	M006 4004041
Imager II Bern 40 cm Torqueable Catheters (Box 5)	M006 4005031



5. Place Second Guidewire

After successful access is established, the Glidewire Guidewire should be exchanged for an Amplatz Super Stiff™ Guidewire. This is most easily done using an 8/10 Co-axial Dilatation Set. The dilator/sheath assembly is advanced over the Glidewire Guidewire and into the ureter. The 8 French dilator is then removed from the sheath. A .035" Amplatz Super Stiff Guidewire can now be introduced through the 10 French sheath and advanced into the bladder. The Glidewire Guidewire is then removed.

It is always advisable to place a .035" J-Tip PTFE Coated Guidewire to use as a safety wire to maintain percutaneous access to the tract. When the safety wire is in place, the Occluder Occlusion Balloon may be reinflated and the 10Fr sheath can be removed.

NOTE: A Glidewire Guidewire should not be used as a safety wire.

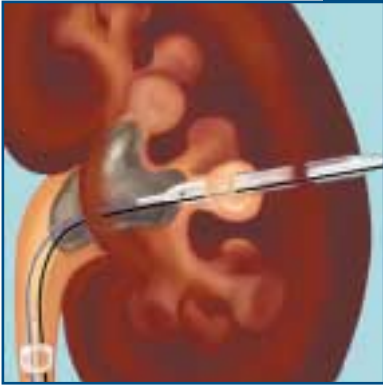
Description	Order Number
.035" Amplatz Super Stiff Guidewire w/Straight 3.5cm Tip (Box 5)	M006 6401081
.035" Amplatz Super Stiff Sensor Guidewire w/J-Tip (Box 5)	M006 6401051
.035" Sensor™ Guidewire w/Straight Tip (Box 5)	M006 6703051
.035" Sensor Guidewire w/Angled Tip (Box 5)	M006 6703061
.035" J-Tip PTFE Coated Guidewire (Each)	M006 6201110



6. Dilate Track: Advance Balloon over Wire

The percutaneous nephrostomy track is created with a NephroMax™ High Pressure Balloon Catheter and a 30 French PTFE Sheath. The sheath is preloaded onto the NephroMax High Pressure Balloon Catheter. The NephroMax High Pressure Balloon Catheter is advanced over the Amplatz Super Stiff Guidewire until the distal tip of the balloon is positioned in the calyx.

Description	Order Number
NephroMax™ High Pressure Nephrostomy Balloon Dilatation Catheters Kit w/LeVeen™ Inflator	M0062 101180
Clear Renal Sheath, O.D. Size 34Fr, 11.3mm, I.D. Size 30Fr, 10.0mm	M0062 601600



7. Dilate Track: Inflate Balloon

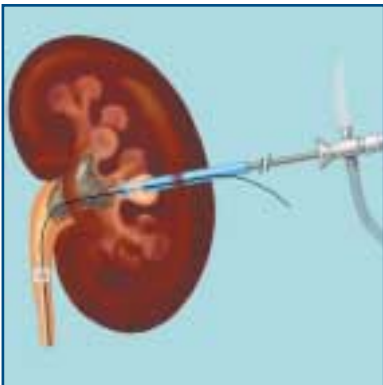
The balloon is then inflated using either the LeVeen™ or Encore® Inflator. The balloon is inflated with a 50% solution of sterile saline and contrast media to a minimum of 12 ATM. The balloon is left inflated until the “waist” disappears. The pressure can be increased to 17 ATM, if necessary.

Description	Order Number
Encore 26 Inflator with Pressure Gauge – 20cc	H7490 4526052
LeVeen Inflator – 20cc	M0067 101121



8. Perform Nephroscopy

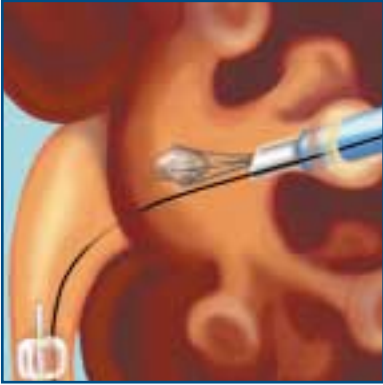
Nephroscopy can be performed through the PTFE sheath. The Amplatz Super Stiff Guidewire should be removed once nephroscopy has confirmed satisfactory location of the PTFE Sheath in the calyx. The shaft of the Amplatz Guidewire could injure the endothelial lining of the collecting system during manipulations of the nephroscope, subsequent lithotripsy and stone fragment retrieval. Both rigid and flexible nephroscopes can be introduced through the PTFE Sheath.



9. Perform Lithotripsy

Lithotripsy can be performed with the Swiss Lithoclast® Ultra Pneumatic Lithotripter or the Holmium Laser.

Description	Order Number
Rigid Probe – short (for use with short 4.8Fr ureteral suction tube), 2.4Fr	M0068 402020
Rigid Probe – short (for use with 10.5Fr bladder suction tube), 4.8Fr	M0068 402140
Swiss Lithoclast® Ultra System	M0068 407000
Swiss Lithoclast Ultra 0.8 mm x 668 cm Disposable Pneumatic Probe	M0068 407310
Swiss Lithoclast Ultra 1.0 mm x 570 mm Disposable Pneumatic Probe	M0068 407330
Swiss Lithoclast Ultra 1.6 mm x 453 mm Disposable Pneumatic Probe	M0068 407350
Swiss Lithoclast Ultra 2.0 mm x 425 mm Disposable Pneumatic Probe	M0068 407370
3.3 mm Lithoclast Ultra Ultrasound Probe	M0068 407160
3.8 mm Lithoclast Ultra Ultrasound Probe	M0068 407170
LithoVac® Ultra Kit	M0068 407800
Holmium SlimLine 550 Micron Fiber Delivery System (Each)	M0068 408430
Holmium SlimLine 1000 Micron Fiber Delivery System (Each)	M0068 408440
DuoTome™ SideLite 550 Micron Fiber Delivery System (Each)	M0068 408460



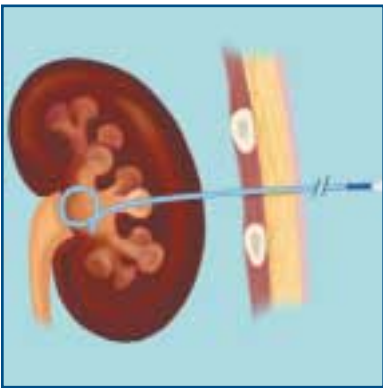
10. Remove Stone Fragments

Remove stone fragments using stone retrieval devices such as ZeroTip™ Baskets and Tricep® Hooked-Prong Grasping Forceps.

The use of flexible nephroscopy to thoroughly inspect the entire renal collecting system helps ensure a stone-free outcome.

Description	Order Number
ZeroTip™ Nitinol Stone Retrieval Baskets* – 3.0Fr, 90 cm length	M006 3901020
Graspit® Nitinol Stone Retrieval Forceps* – 3.2Fr, 90 cm length	M006 3204020
Segura Hemisphere® Stone Retrieval Baskets* – “O” Tip, 4.5Fr, 90 cm length	M006 3801180
Tricep Hooked-Prong Grasping Forceps* – 3.0Fr, 90 cm length	M006 3701220

* Additional sizes available. Please see Product Catalog for details.



11. Place Nephrostomy Drainage Catheter

Finally, a Re-Entry Malecot Nephrostomy Catheter or a Flexima™ Locking Loop Nephrostomy Catheter is placed to establish urinary drainage. The Amplatz Super Stiff™ Guidewire is reintroduced through the PTFE Sheath and advanced into the bladder. The extra stiffness of this guidewire facilitates advancement of the Re-Entry™ Malecot Nephrostomy Catheter or the Flexima Locking Loop Nephrostomy Catheter.

The stiffener supplied with the nephrostomy catheter is used to straighten the malecot wings. The Re-Entry Malecot Nephrostomy Catheter is advanced over the Amplatz Super Stiff™ Guidewire and positioned with malecot wings within the renal pelvis. The stiffener is removed allowing the malecot to form. The PTFE Sheath and Amplatz Super Stiff Guidewire are then removed.

Description	Order Number
Flexima Locking Loop Nephrostomy Catheter – 8Fr	M006 4101400
Flexima Locking Loop Nephrostomy Catheter – 10Fr	M006 4101410
Flexima Locking Loop Nephrostomy Catheter – 12Fr	M006 4101420
Flexima Locking Loop Nephrostomy Catheter – 14Fr	M006 4101430
Re-Entry Malecot Nephrostomy Catheter – 14Fr Catheter, 6Fr Tip	M006 4101040
Re-Entry Malecot Nephrostomy Catheter – 16Fr Catheter, 6Fr Tip	M006 4101050
Re-Entry Malecot Nephrostomy Catheter – 20Fr Catheter, 8Fr Tip	M006 4101060
Re-Entry Malecot Nephrostomy Catheter – 24Fr Catheter, 8Fr Tip	M006 4101070
Malecot Nephrostomy Catheter – 14Fr Catheter	M006 4101000
Malecot Nephrostomy Catheter – 16Fr Catheter	M006 4101010
Malecot Nephrostomy Catheter – 20Fr Catheter	M006 4101020
Malecot Nephrostomy Catheter – 24Fr Catheter	M006 4101030

Percutaneous Nephrolithotomy

Ordering Information

Description	Order Number	Order Quantity
7. Dilate Track: Inflate Balloon		
Encore® 26 Inflator with Pressure Gauge – 20cc	H74904526052	
LeVeen™ Inflator – 20cc	M0067101121	
8. Perform Nephroscopy		
9. Perform Lithotripsy		
Rigid Probe – short (for use with short 4.8Fr ureteral suction tube), 2.4Fr, 0.8 mm x 605 mm	M0068402020	
Rigid Probe – short (for use with 10.5Fr bladder suction tube), 4.8Fr, 0.8 mm x 558 mm	M0068402140	
Swiss Lithoclast® Ultra System	M0068407000	
Swiss Lithoclast Ultra 0.8 mm x 668 cm Disposable Pneumatic Probe	M0068407310	
Swiss Lithoclast Ultra 1.0 mm x 570 mm Disposable Pneumatic Probe	M0068407330	
Swiss Lithoclast Ultra 1.6 mm x 453 mm Disposable Pneumatic Probe	M0068407350	
Swiss Lithoclast Ultra 2.0 mm x 425 mm Disposable Pneumatic Probe	M0068407370	
3.3 mm Swiss Lithoclast Ultra Ultrasound Probe	M0068407160	
3.8 mm Swiss Lithoclast Ultra Ultrasound Probe	M0068407170	
LithoVac® Ultra Kit	M0068407800	
Holmium SlimLine 550 Micron Fiber Delivery System (Each)	M0068408430	
Holmium SlimLine 1000 Micron Fiber Delivery System (Each)	M0068408440	
DuoTome™ SideLite 550 Micron Fiber Delivery System (Each)	M0068408460	
10. Remove Stone Fragments		
ZeroTip™ Nitinol Stone Retrieval Baskets* – 3.0Fr, 90 cm length	M0063901020	
Graspit® Nitinol Stone Retrieval Forceps* – 3.2Fr, 90 cm length	M0063204020	
Segura Hemisphere™ Stone Retrieval Baskets* – “O” Tip, 4.5Fr, 90 cm length	M0063801180	
Tricep® Hooked-Prong Grasping Forceps* – 3.0Fr, 90 cm length	M0063701220	
<i>* Additional sizes available. Please see Product Catalog for details.</i>		
11. Place Nephrostomy Drainage Catheter		
Flexima™ Locking Loop Nephrostomy Catheter – 8Fr	M0064101400	
Flexima Locking Loop Nephrostomy Catheter – 10Fr	M0064101410	
Flexima Locking Loop Nephrostomy Catheter – 12Fr	M0064101420	
Flexima Locking Loop Nephrostomy Catheter – 14Fr	M0064101430	
Re-Entry™ Malecot Nephrostomy Catheter – 14Fr Catheter, 6Fr Tip	M0064101040	
Re-Entry Malecot Nephrostomy Catheter – 16Fr Catheter, 6Fr Tip	M0064101050	
Re-Entry Malecot Nephrostomy Catheter – 20Fr Catheter, 8Fr Tip	M0064101060	
Re-Entry Malecot Nephrostomy Catheter – 24Fr Catheter, 8Fr Tip	M0064101070	
Malecot Nephrostomy Catheter – 14Fr Catheter	M0064101000	
Malecot Nephrostomy Catheter – 16Fr Catheter	M0064101010	
Malecot Nephrostomy Catheter – 20Fr Catheter	M0064101020	
Malecot Nephrostomy Catheter – 24Fr Catheter	M0064101030	

Hospital Order Form

Physician Name: _____

Physician Signature: _____

Hospital Name: _____

Date: _____

Percutaneous Nephrolithotomy

Ordering Information

Description	Order Number	Order Quantity
1. Advance Guidewire and Occlusion Balloon		
.025" Stiff Shaft Glidewire® Guidewire w/Straight Tip (Box 5)	M006 6301071	
.025" Stiff Shaft Glidewire Guidewire w/Angled Tip (Box 5)	M006 6301081	
.035" Glidewire Guidewire w/Straight Tip (Box 5)	M006 6301001	
.035" Glidewire Guidewire w/Angled Tip (Box 5)	M006 6301021	
.035" Sensor™ Guidewire w/Angled Tip (Box 5)	M006 6703061	
.035" Sensor Guidewire w/Straight Tip (Box 5)	M006 6703051	
2. Opacify the Collecting System		
Occluder™ Occlusion Balloon 5Fr Catheter; 26Fr Balloon, 65 cm length	M006 2201070	
Occluder Occlusion Balloon 5Fr Catheter; 26Fr Balloon, 100 cm length	M006 2201080	
Occluder Occlusion Balloon 7Fr Catheter; 34Fr Balloon, 65 cm length	M006 2201090	
Occluder Occlusion Balloon 7Fr Catheter; 34Fr Balloon, 100 cm length	M006 2201100	
3. Puncture Calyx and Place Guidewire		
TLA Introducer and 19 Gauge Needle and Sheath Set	M006 7001200	
12 cm Introducer and 18 Gauge Needle Set	M006 7001210	
20 cm Introducer and 18 Gauge Needle Set	M006 7001220	
Mardis II Single Puncture Introducer Set	M006 7001010	
4. Place Guidewire: Difficult Anatomy		
Imager™ II C1 65 cm Torqueable Catheters	M006 4003001	
Imager II C2 65 cm Torqueable Catheters	M006 4003011	
Imager II Straight 65 cm Torqueable Catheters	M006 4003021	
Imager II Bern 65 cm Torqueable Catheters	M006 4003031	
Imager II JB1 65 cm Torqueable Catheters	M006 4003041	
Imager II Straight 100 cm Torqueable Catheters	M006 4004021	
Imager II Bern 100 cm Torqueable Catheters	M006 4004031	
Imager II JB1 100 cm Torqueable Catheters	M006 4004041	
Imager II Bern 40 cm Torqueable Catheters	M006 4005031	
5. Place Second Guidewire		
.035" Amplatz Super Stiff™ Guidewire w/Straight 3.5cm Tip (Box 5)	M006 6401081	
.035" Amplatz Super Stiff Sensor Guidewire w/J-Tip (Box 5)	M006 6401051	
.035" Sensor™ Guidewire w/Straight Tip (Box 5)	M006 6703051	
.035" Sensor Guidewire w/Angled Tip (Box 5)	M006 6703061	
.035" J-Tip PTFE Coated Guidewire (Each)	M006 6201110	
6. Dilate Track: Advance Balloon over Wire		
NephroMax™ High Pressure Nephrostomy Balloon Dilatation Catheters Kit w/ LeVein™ Inflator	M006 2101180	
Clear Renal Sheath, O.D. Size 34Fr, 11.3mm, I.D. Size 30Fr, 10.0mm	M006 2601600	

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Educational Programs

PRECEPTORS

The preceptorship program offers physicians the unique opportunity to view surgery with some of the best skilled key opinion leaders in the urology community. Your local Boston Scientific representative can coordinate your schedule with one of our physician preceptors.

DIDACTIC COURSES AND LABS

Boston Scientific sponsors a one-day and a two-day CME accredited course designed for the practicing urologist interested in improving and expanding ureteroscopic capabilities and PCNL access skills. The latest rigid and flexible ureteroscopes, intracorporeal lithotripsy devices and percutaneous procedures are demonstrated in didactic and lab sessions.

The course is divided into lectures and 'hands-on' training sessions. Experts provide individualized instruction and demonstration of techniques. Difficult cases are presented, and discussion outlines 'pearls' of ureteroscopy.

Contact your local Boston Scientific representative for the date and location of the next accredited course.

VIEWPOINT™ IN-SERVICES

Boston Scientific sponsors Viewpoint Techniques in Endourology. Viewpoint is a series of programs designed to educate the operating room staff about minimally invasive technologies in urology. Many hospitals have found that this program results in improved communication and more efficient procedures. Registered Nurses who attend the Viewpoint program will receive continuing education credits.



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