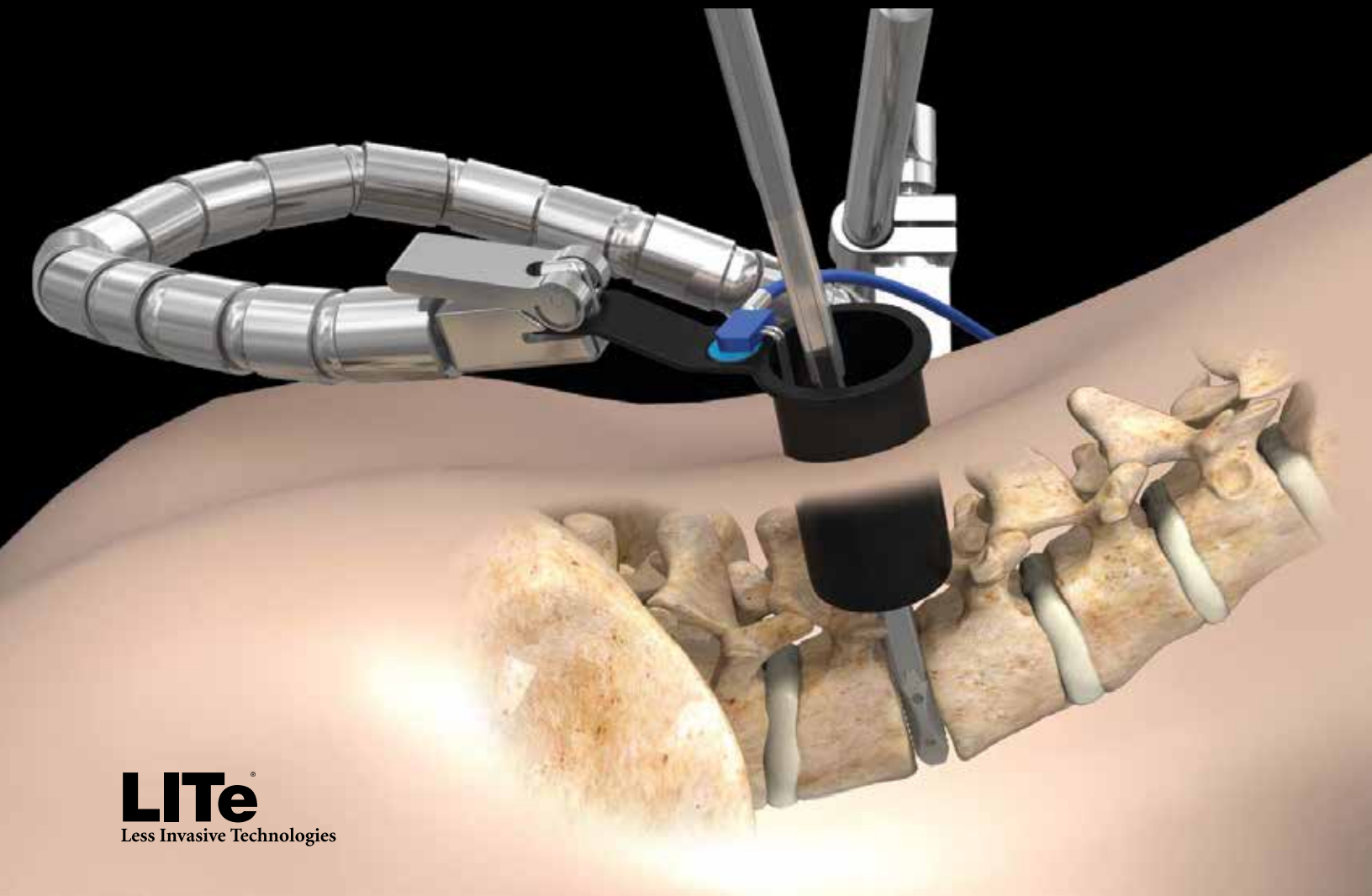


# LITe® Decompression System

## Surgical Technique

- Non-reflective PVD coating
- Full microdiscectomy set
- Simple, low-profile light source



# LiTe Decompression System

## Surgical Technique

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# LITe Decompression System

## Surgical Technique

### System Overview



The LITe Decompression System is a comprehensive access and instrumentation set designed for a systematic approach to minimally invasive spinal procedures. The system features tubes in a variety of diameters and lengths, a disposable light source to illuminate the surgical site, and a set of instruments to assist in a variety of minimally invasive procedures. The LITe Decompression System is part of Stryker Spine's portfolio of LITe or "Less Invasive Technologies."

#### Decompression Tubes

The LITe Decompression Tubes are made of Stainless Steel, providing strength in a low profile form.

The tubes are available in a variety of sizes:

- Ø12mm, Ø14mm, Ø16mm, Ø18mm, Ø22mm, and Ø26mm
- 30mm - 90mm length

The tubes feature a non-reflective PVD coating, which can reduce glare from OR lighting or a headlamp compared to other access systems.



#### Disposable Light Cable

The LITe Decompression System offers a single-use, sterile packed light cable which is optimized for use with the tubes. The light cable attaches to the neck of the tubes and directs light from a standard OR light source down into the working portal.

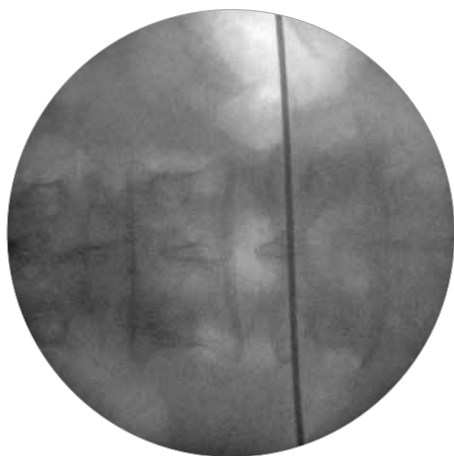
#### Microdiscectomy Instruments

The instruments provided in the LITe Decompression System are optimized for use in posterior MIS procedures through small working portals, taking advantage of design features such as bayoneted working shafts, a non-reflective coating, and minimized handle profiles and shaft diameters.



# LiTe Decompression System

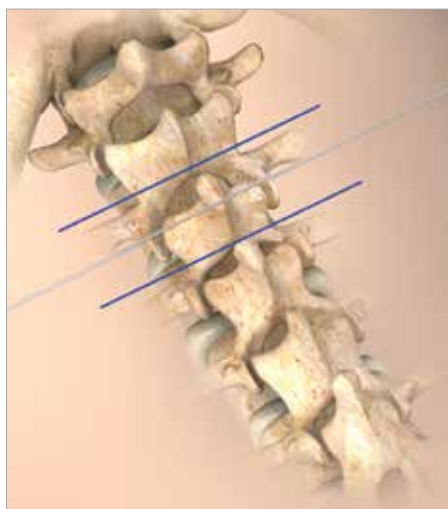
## Surgical Technique



### Patient Positioning

The LiTe Decompression Tubes can be successfully used under local, epidural, spinal or general anesthesia. General anesthesia is commonly used since it is the most comfortable for the patient and allows immediate postoperative neurological assessment.

The patient is prepped and draped in the usual sterile manner for posterolateral fusion with pedicle screw fixation.



### Targeting

The following steps can be taken to assure the correct positioning of a LiTe Decompression Tube.

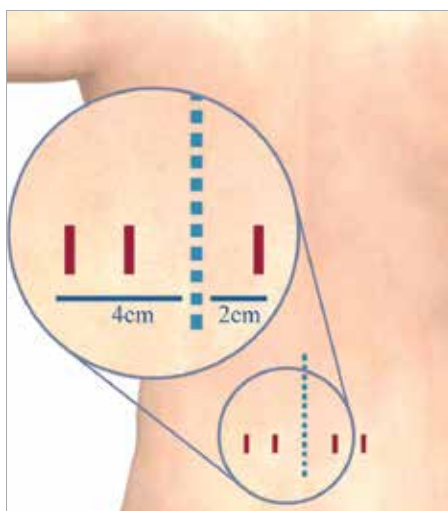
First, A/P images are used to confirm the starting point and trajectory for the procedure.

- For a decompression, the entry point is approximately 2cm off mid-line with a more medial trajectory.
- For a TLIF, the entry point is approximately 4cm off mid-line with a more lateral trajectory.

**Note:** The entry point is typically at or cephalad to the accessory process (AP) on the transverse process.

An incision, the size of the tube to be used, is made parallel to the spine.

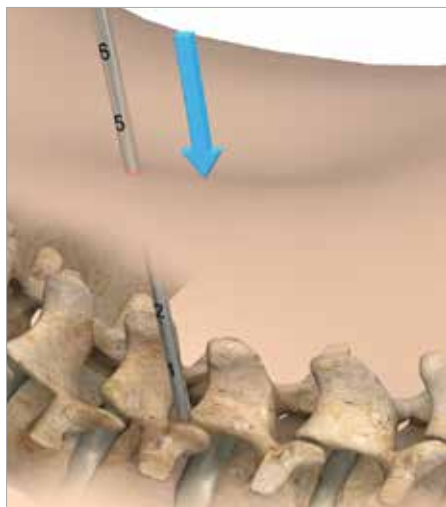
The fascia can also be incised to make tissue dilation easier. This is optional and can be performed later if tissue dilation is difficult.



# LiTe Decompression System

## Surgical Technique

### Dilation



#### Initial Insertion

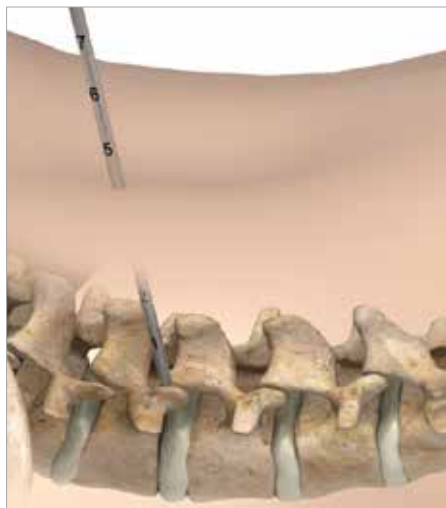
Place **Dilator 1** through the incision. Advance through the tissue while directing toward the inferior aspect of the superior lamina under lateral imaging. Care should be taken not to advance through the interlaminar space.

The tip of the dilator is used to sweep the paraspinal musculature off the laminar edge.

Note the depth marking of the dilator in relation to the skin. The dilators have depth markings laser etched which correlate to tube length.

Choose the appropriate tube size based on where the skin meets the dilator. If the skin is between two markings on the dilator, choose the longer tube.

**Note:** Feel, fluoroscopy, anatomical knowledge, review of preoperative images, and partial visualization may all contribute towards desired instrument placement accuracy.



**Note:** Great care must be taken to avoid penetration of the ligamentum flavum and inadvertent dural puncture with possible nerve injury or spinal fluid leak.

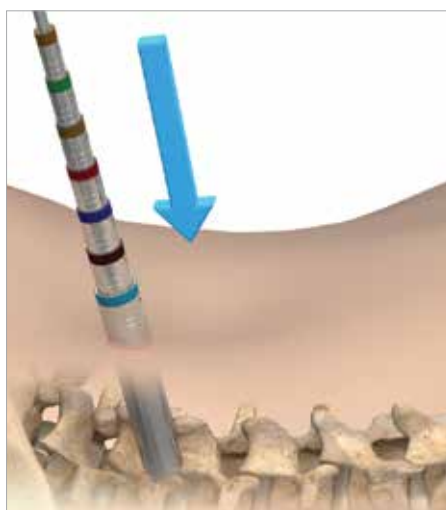
**Note:** If using the **Guide Pin** do not direct it lateral to the facet, which risks injury to the nerve root or deeper structures.

**Note:** To ensure that the Guide Pin is not bent, pass it through the cannulation in Dilator 1.

#### Subsequent Dilator Insertion

Slide the subsequent dilators over Dilator 1 and into the incision.

Use the dilators to penetrate and gently spread and dissect soft tissue down to the lamina.

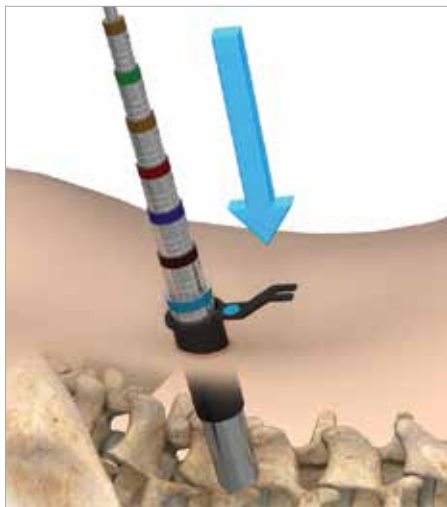


Match the color of the dilator with the color of the disc on the tube to ensure selection of the proper tube diameter. Laser markings on the dilators and tubes can also be used for proper selection.

# LiTe Decompression System

## Surgical Technique

### Tube Placement and Attachments



#### Tube Insertion & Arm Positioning

Slide the tube over the dilators and dock on the bone.

Attach the **Arm Post** to the table rail once the surgical preparation and draping are completed.

The Mediflex Arm Post mounts to the hospital bed rail.

Check compatibility of the Arm Post to the hospital bed prior to surgery.

Mount the Arm Post to the bed rail on the opposite side of surgeon near the patient's hip.

Turn the Arm Post locking mechanism clockwise to secure it to the bed.

Once secure, attach the **Snake Arm** to the Arm Post and lock into place.

The Snake Arm should be positioned across the patient and wrapped in front of the surgeon.

**Note:** The Snake Arm should be properly reset and lubricated between uses.

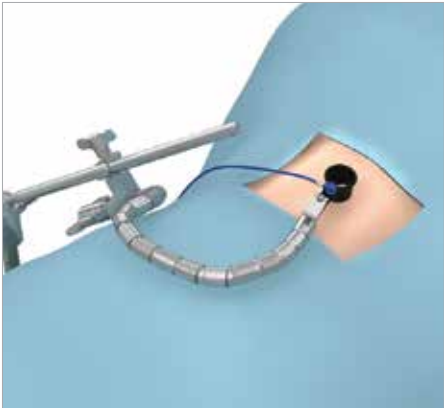
Insert the handle of the tube into the clamp of the Snake Arm, and flip the clamp to secure.



**Note:** To ensure proper locking, the handle of the tube should be inserted entirely into the Snake Arm clamp. The engagement feature of the tube is not coated with the non-reflective PVD coating, and should not be seen when properly inserted into the clamp.













# LiTe Decompression System

## Surgical Technique



Secure the arm assembly by tightening the knobs.

**Note:** If repositioning of the tube is necessary, the tube can be wanded over the pathology using the dilators. The snake arm should be loosened before wanding. Once in the proper location, the arm assembly can be re-tightened.

Description	Part #	
Guide Pin	48250010	
Dilator 1	48080006	
Dilator 2	48080012	
Dilator 3	48080014	
Dilator 4	48080016	
Dilator 5	48080018	
Dilator 6	48080020	
Dilator 7	48080022	
Dilator 8	48080026	
Arm Post	48250240	
Snake Arm	48080230	
Decompression Tube	See Instrument List	

# LITe Decompression System

## Surgical Technique

### Light Cable Attachment (Optional)

If desired, the **Light Cable** can be attached to the tube.

First, remove the Light Cable from its sterile packaging. Attach the appropriate Light Source Adaptor to the Light Cable, and then connect to a light source

**Note:** Light Cable must be used with a light source that has been tested to IEC safety standards, and is compatible with an ACMI connection.

**Note:** The Light Cable is a single-use and disposable item. Do not re-sterilize or reuse.



To attach the Light Cable, place the distal tips of the Light Cable into the LITe Decompression Tube (Figure A).

(Figure A)



(Figure B)

Clip the head of the Light Cable to the LITe Decompression Tube Handle (Figure B).

Turn on the power to the light source, adjusting the illumination settings on the light source to desired brightness.

**Note:** When the Light Cable is not in use, the light source should be set to standby mode.

**Note:** When the Light Cable is used with a Stryker light source, the following settings are recommended for optimal performance:

- Stryker X8000 - 60% and above
- Stryker L9000 - 90% and above



(Figure C)

Box designates portion of the Light Cable in the sterile field (Figure C).

**Note:** To remove Light Cable - reverse steps shown.

# LITe Decompression System

## Surgical Technique

### Instruments

The LITe Decompression System offers a comprehensive set of microdiscectomy instruments optimized for use in an MIS procedure.

The set consists of:

- Woodson Probes
- IVD Rongeurs
- Kerrison Rongeurs
- Curettes
- Suction Tubes
- Pituitaries
- Nerve Hooks
- Dissectors

These instruments are designed with:

- **Bayoneted working shafts to provide greater visibility while working through a tube.**
- **Working lengths of 16cm or more for surgical procedures in the lower posterior thoracic and lumbar spine.**
- **Non-reflective coating to further increase visibility by reducing glare.**
- **Handle profiles and shaft diameters minimized to provide greater visibility.**

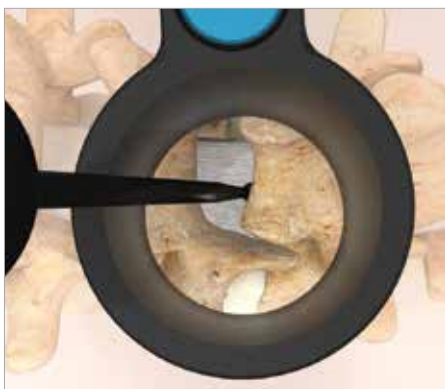
**Note:** Instruments should be visually and physically checked for fit with each tube before use.



# LITe Decompression System

## Surgical Technique

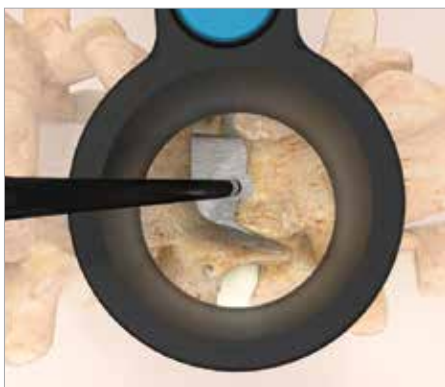
### Decompression Overview



Once the tube is placed in the proper position and with appropriate trajectory for a posterior decompression, begin to remove residual soft tissue in a standard manner utilizing electrocautery and other standard instruments. A conventional decompression can now be performed utilizing the LITe Decompression System.



Begin decompression by placing an angled curette under the inferior edge of the superior lamina. This enables easy placement of a Kerrison Rongeur between the laminar edge and the ligamentum flavum.



Bony removal can be performed using Kerrison Rongeurs or a standard drill system.

Contralateral decompression can be achieved if necessary by undercutting the lamina at the base of the spinous process.

- Removal of contralateral hypertrophied ligamentum flavum and bony decompression of the lateral recess may be achieved by utilizing a Kerrison.

The Decompression Tube may be angled inferiorly to enable foraminotomy of the affected nerve root.



Conventional nerve retraction can be accomplished with a probe or nerve retractor.

Discectomy is performed using the IVD Rongeurs.

Upon completion of decompression, remove the tube assuring that there is no residual bleeding, close subcutaneous tissue and cover the skin edge with waterproof dressing.



# LITe Decompression System

## Surgical Technique

### TLIF Overview



Once the tube is placed in the proper position and with appropriate trajectory for a TLIF, begin to remove residual soft tissue in a standard manner utilizing electrocautery and other standard instruments. A conventional TLIF procedure can now be accomplished.

#### Disc Preparation and Removal

Identify the offending disc material, and enter the disc space at the vertebral margins.

Resect the posterior lip of the vertebral body. This will simultaneously help free the cartilaginous endplate and provide direct entry to the disc space.

Remove the offending disc material with a Pituitary Rongeur. Intradiscal and extradiscal work can be executed, as one would normally perform during a microdiscectomy.

The nerve root and spinal canal are explored to ensure the decompression is complete. Once the nerve root is decompressed, irrigate the disc space thoroughly.

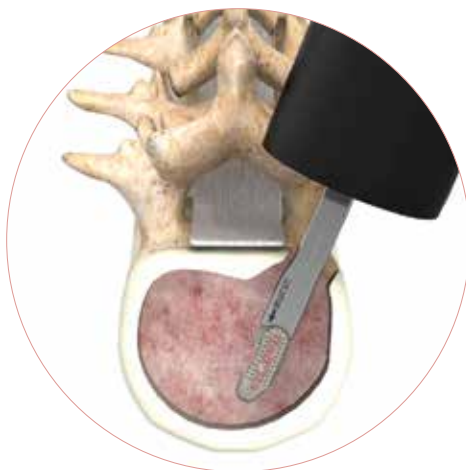
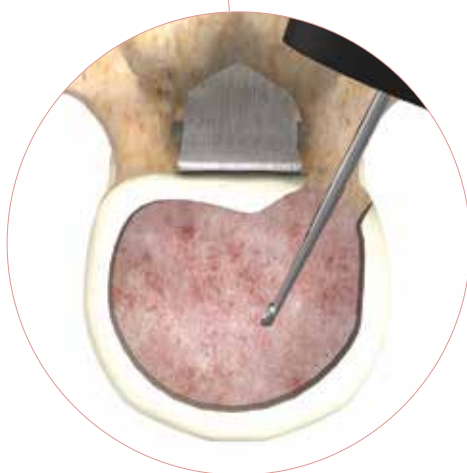
If an interbody fusion is to be performed, complete the discectomy, leaving the anterior and lateral aspects of the annulus intact.

Prepare endplate for interbody fusion.

#### Graft Insertion

Insert the interbody device.

Autogenous bone graft may be placed lateral, ventral and/or dorsal to the implanted interbody device.



# LiTe Decompression System

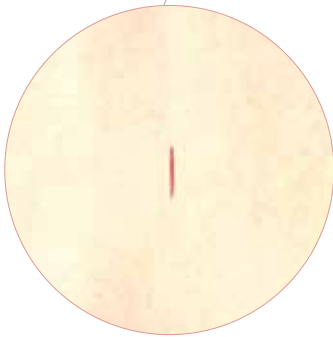
## Surgical Technique

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### Closure

Upon completion, remove the tube assuring that there is no residual bleeding, close subcutaneous tissue and cover the skin edge with waterproof dressing.
















### Contralateral Side

Fixation on the contralateral side can be performed with a percutaneous screw system.

# LITe Decompression System

## Surgical Technique

### LITe Decompression Tubes

Description	Part #	
Decompression Tubes Container	48080002	
Tray Insert – 12/14/16 mm Tubes	48080002AA	
Tray Insert – 18/22/26 mm Tubes	48080002BB	
Decompression Tubes Container (Base and Lid Only)	48080002CC	
Guide Pin	48250010	
Dilator 1 (Ø6mm OD x 27.5cm)	48080006	
Dilator 2 (Ø10.75mm OD x 25cm) for Ø12mm tube	48080012	
Dilator 3 (Ø12.75mm OD x 23cm) for Ø14mm tube	48080014	
Dilator 4 (Ø14.75mm OD x 21cm) for Ø16mm tube	48080016	
Dilator 5 (Ø16.75mm OD x 19cm) for Ø18mm tube	48080018	
Dilator 6 (Ø18.75mm OD x 17cm) for Ø20mm tube	48080020	
Dilator 7 (Ø20.75mm OD x 15cm) for Ø22mm tube	48080022	
Dilator 8 (Ø24.75mm OD x 13cm) for Ø26mm tube	48080026	
Snake Arm	48080230	
Arm Post	48250240	
Stryker/ACMI/Zimmer Light Source Adaptor	233-050-071	
Storz Light Source Adaptor	233-050-073	
Olympus Light Source Adaptor	233-050-072	
Wolf/Dyonics Light Source Adaptor	233-050-074	
Light Cable	48089999	

# LiTe Decompression System

## Surgical Technique

### LiTe Decompression Tubes

Description	Part #	
Tube Ø12mm x 3cm	48081203	
Tube Ø12mm x 4cm	48081204	
Tube Ø12mm x 5cm	48081205	
Tube Ø12mm x 6cm	48081206	
Tube Ø12mm x 7cm	48081207	
Tube Ø12mm x 8cm	48081208	
Tube Ø12mm x 9cm	48081209	
Tube Ø14mm x 3cm	48081403	
Tube Ø14mm x 4cm	48081404	
Tube Ø14mm x 5cm	48081405	
Tube Ø14mm x 6cm	48081406	
Tube Ø14mm x 7cm	48081407	
Tube Ø14mm x 8cm	48081408	
Tube Ø14mm x 9cm	48081409	
Tube Ø16mm x 3cm	48081603	
Tube Ø16mm x 4cm	48081604	
Tube Ø16mm x 5cm	48081605	
Tube Ø16mm x 6cm	48081606	
Tube Ø16mm x 7cm	48081607	
Tube Ø16mm x 8cm	48081608	
Tube Ø16mm x 9cm	48081609	
Tube Ø18mm x 3cm	48081803	
Tube Ø18mm x 4cm	48081804	
Tube Ø18mm x 5cm	48081805	
Tube Ø18mm x 6cm	48081806	
Tube Ø18mm x 7cm	48081807	
Tube Ø18mm x 8cm	48081808	
Tube Ø18mm x 9cm	48081809	
Tube Ø22mm x 3cm	48082203	
Tube Ø22mm x 4cm	48082204	
Tube Ø22mm x 5cm	48082205	
Tube Ø22mm x 6cm	48082206	
Tube Ø22mm x 7cm	48082207	
Tube Ø22mm x 8cm	48082208	
Tube Ø22mm x 9cm	48082209	
Tube Ø26mm x 3cm	48082603	
Tube Ø26mm x 4cm	48082604	
Tube Ø26mm x 5cm	48082605	
Tube Ø26mm x 6cm	48082606	
Tube Ø26mm x 7cm	48082607	
Tube Ø26mm x 8cm	48082608	
Tube Ø26mm x 9cm	48082609	



# LITe Decompression System

## Surgical Technique




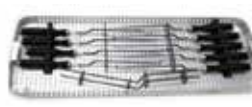

### LITe Decompression Instruments 2.0

#### Trays

Description	Part #	
Stryker Instrument Tray 1	78782001	
Instrument Tray 1 Base	78782006	
Instrument Tray 1 Lid	78782007	
Stryker Instrument Tray 2	78782002	
Instrument Tray 2 Base	78782008	
Instrument Tray 2 Lid	78782009	

#### Tray Inserts

**Note:** The following tray inserts are interchangeable and can be placed in any combination between Instrument Trays 1 and 2.

Description	Part #	
Tray Insert - Probes, Dissectors Nerve Hooks Knife Handle	78782004	
Tray Insert - Kerrison and Suction Insert #1	78782011	
Tray Insert Ancillary	78782005	
Tray Insert - Curettes	78782012	
Tray Insert - Pituitaries and Scissors	78782003	

# LiTe Decompression System

## Surgical Technique

### LiTe Decompression Instruments 2.0

Description	Part #	
40° Bayoneted Kerrison - 2mm	48252506	
40° Bayoneted Kerrison - 3mm	48252507	
40° Bayoneted Kerrison - 4mm	48252508	
40° Bayoneted Kerrison - 5mm	48252544	
Bayoneted Knife Handle	78752000	
Micro Scissors	78752010	
Curved Scissors	78752020	
Bayoneted Curette, 1.8mm, Fwd Straight	78752101	
Bayoneted Curette, 3.6mm, Fwd Straight	78752103	
Bayoneted Curette, 5.2mm, Fwd Straight	78752105	
Bayoneted Curette, 1.8mm, Fwd Angled	78752201	
Bayoneted Curette, 3.6mm, Fwd Angled	78752203	
Bayoneted Curette, 5.2mm, Fwd Angled	78752205	
Bayoneted Curette, 1.8mm, Rev Angled	78752301	
Bayoneted Curette, 3.6mm, Rev Angled	78752303	
Bayoneted Curette, 5.2mm, Rev Angled	78752305	
Suction Retractor	78752401	
Wide Suction Retractor	78752402	
Instrument Suction, 8Fr	78752408	
Suction, 10Fr	78752410	
Suction, 12Fr	78752412	
40° Bayoneted Kerrison - 1mm	78752509	
Bayoneted Woodson Probe	78752600	
Bayoneted Ball Probe, Short Right	78752601	
2mm x 6mm Upbiting Pituitary	78752602	
Bayoneted Ball Probe, Short Left	78752603	
4mm x 6mm Straight Pituitary	78752604	
Bayoneted Ball Probe, Short Straight	78752607	
Bayoneted Ball Probe, Long Right	78752611	
2mm x 6mm Straight Pituitary, Serrated	78752612	
Bayoneted Ball Probe, Long Left	78752613	
4mm x 10mm Straight Pituitary	78752614	
Bayoneted Ball Probe, Long Straight	78752617	
2mm x 6mm Straight Pituitary W/ Tooth	78752622	

# LiTe Decompression System

## Surgical Technique

### LiTe Decompression Instruments 2.0

Description	Part #	
Bayoneted Penfield #4, Push/Pull	78752624	
Bayonet Penfield #7, Push/Pull	78752627	
Bayoneted Penfield #2, Push/Pull	78752629	
2mm x 6mm Upbiting Pituitary, Serrated	78752632	
4mm x 10mm Upbiting Pituitary	78752642	
2mm x 6mm Downbiting Pituitary	78752652	
Nerve Root Retractor, Small	78752801	
Nerve Root Retractor, Large	78752802	
90° Bayoneted Kerrison - 1mm	78752901	
90° Bayoneted Kerrison - 2mm	78752902	
90° Bayoneted Kerrison - 3mm	78752903	
90° Bayoneted Kerrison - 4mm	78752904	
90° Bayoneted Kerrison - 5mm	78752905	
Micro Nerve Hook, Straight	78752981	
Micro Nerve Hook, Right	78752982	
Dissector, Left	78752983	
Dissector, Right	78752984	
Dissector, Straight	78752985	
Micro Nerve Hook, Left	78752987	
Nerve Hook, Straight	78752991	
Nerve Hook, Right	78752992	
Nerve Hook, Left	78752993	

### Outlier Instruments

Description	Part #	
4mm x 10mm Upbiting Pituitary, Bayoneted	48252542	
4mm x 10mm, Straight, Bayoneted	48482539	
Stylette For Suctions	75752090	
2mm x 6mm, Upbiting, Bayoneted	78752702	
4mm x 6mm Straight, Bayoneted	78752704	
2mm x 6mm Straight Pituitary, Serrated, Bayoneted	78752712	
2mm x 6mm Straight Pituitary W/ Tooth, Bayoneted	78752722	
2mm x 6mm Upbiting Pituitary, Serrated, Bayoneted	78752732	
2mm x 6mm Downbiting Pituitary, Bayoneted	78752742	

# LiTe Decompression System

## Surgical Technique

### LiTe Decompression Instruments

Description	Part #	
Microdissectomy Instruments Tray	48080003	
Tray Top Insert - Rongeurs and Pituitary	48080003AA	
Tray Middle Insert - Curettes and Probes	48080003BB	
Tray Bottom Insert - Suction Tubes and Kerrisons	48080003CC	
Container	48080000	
Auxiliary Container	48080001	
Woodson Probe	48252500	
Ball Probe, Right Bayonet, 2mm, 7mm Offset	48252501	
Ball Probe, Straight Bayonet, 2mm, 7mm Offset	48252502	
Ball Probe, Left Bayonet, 2 mm, 7mm Offset	48252503	
Rongeur, Straight, 2mm x 10mm	48252504	
Rongeur, Straight, 3mm x 10mm	48252505	
Kerrison Rongeur, Bayonet, 40° x 2mm	48252506	
Kerrison Rongeur, Bayonet, 40° x 3mm	48252507	
Kerrison Rongeur, Bayonet, 40° x 4mm	48252508	
Cup Curette, Bayonet, Straight, 3.6mm	48252509	
Cup Curette, Bayonet, Forward Angle, 3.6mm	48252510	
Cup Curette, Bayonet, Reverse Angle, 3.6mm	48252511	
Suction Tube, 8Fr	48252512	
Suction Tube, 10Fr	48252513	
Suction Tube, 12Fr	48252514	
Cup Curette, Bayonet, Straight, 4.4mm	48252515	
Cup Curette, Bayonet, Forward Angle, 4.4mm	48252516	
Cup Curette, Bayonet, Reverse Angle, 4.4mm	48252517	
Cup Curette, Bayonet, Forward Angle, 7.5mm	48252518	
Rongeur, Straight, 4mm x 10mm	48252519	
Rongeur, Upbiting, 2mm x 10mm	48252520	
Rongeur, Upbiting, 3mm x 10mm	48252521	
Rongeur, Downbiting, 3mm x 10mm	48252522	
Micro Scissor, Straight 5mm	48252523	
Micro Pituitary, Straight, 2mm x 6mm	48252524	

# LITe Decompression System

## Surgical Technique

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### Indications for Use

The Stryker Spine LITe Decompression System – Light Cable is intended to provide surgical site illumination from a high intensity light source when Stryker decompression tubes are in use.

### Contraindications

There are no known contraindications.

### Precaution

- The LITe Decompression System – Light Cable has been sterilized by Ethylene Oxide (ETO).
- DO NOT RESTERILIZE.
- Instruments supplied sterile must not be allowed to come into contact with any disinfectant product or solution.
- Please use caution in storing, handling, and preparing all Stryker components, instruments, and materials in accordance with your facility's standard methods to avoid soiling or contamination prior to or during use.

### Warnings

- High luminous output. DO NOT look directly into the light. DO NOT direct light into the eye of the patient.
- DO NOT use this equipment in the presence of a mixture consisting of a flammable anesthetic and air, oxygen, nitrous oxide or alcohol.
- When the Light Cable is plugged into a functioning light source and not assembled to the decompression tube, the distal end of the cable radiates heat. To avoid risk of burns, DO NOT allow the distal end of the Light Cable to come in contact with or rest near drapes, cloth, papers, patient or user. The surface temperature near the scope adapter and at the end of the light cable may exceed 43°C if the unit is operated at maximum brightness for extended periods of time. This may cause burns.
- DO NOT ABUSE, PULL, STRETCH, KINK, PUNCTURE OR OTHERWISE ALTER THE FIBEROPTIC CABLE.

### Caution

Federal law restricts this device to sale by or on the order of a physician.



## Reconstructive

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Hips  
Knees  
Trauma & Extremities  
Foot & Ankle  
Joint Preservation  
Orthobiologics & Biosurgery

## MedSurg

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Power Tools & Surgical Accessories  
Computer Assisted Surgery  
Endoscopic Surgical Solutions  
Integrated Communications  
Beds, Stretchers & EMS  
Reprocessing & Remanufacturing

## Neurotechnology & Spine

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Craniomaxillofacial  
Interventional Spine  
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**Stryker Spine**  
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A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery.

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