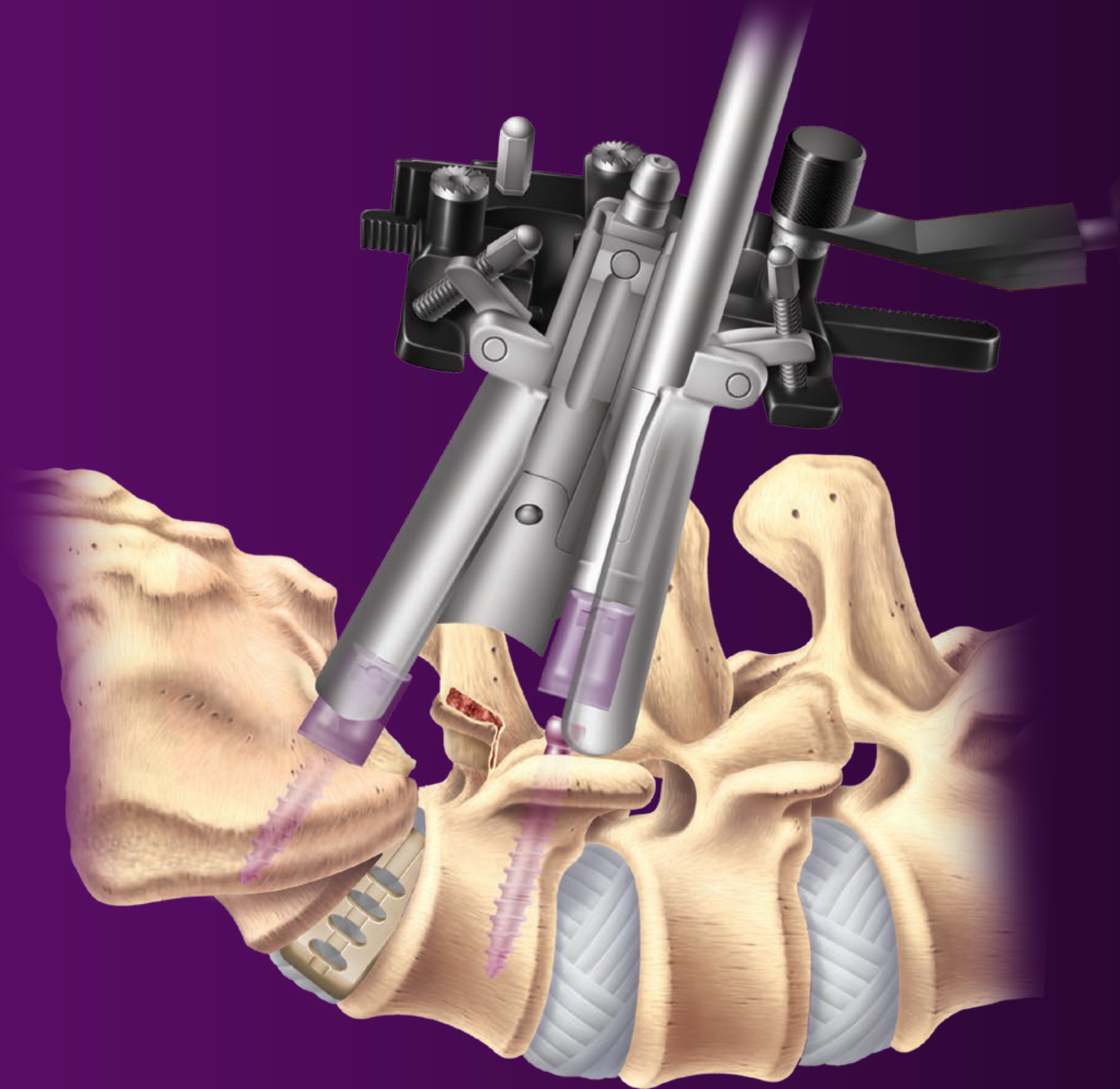


Surgical Technique



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PREFACE

Fellow Colleagues:

Minimally disruptive spine surgery has been an elusive goal due to the challenges associated with steep learning curves, low efficiencies, and perceived limited effectiveness of minimally invasive procedures. Many of the technique principles used in conventional procedures are often compromised when working through small apertures, using small instruments and unconventional visualization technologies.

MaXcess® was the first integrated access system to use a split-blade retractor to maximize the exposure, while minimizing soft tissue disruption. Surgeons were then able to perform conventional surgery using conventional instruments with direct visualization. The conventional nature of the surgery reduced the learning curve and enabled surgeons, who were previously frustrated by minimally invasive techniques, to be successful in accomplishing their surgical objectives.

The MAS® TLIF technique further advances minimally disruptive surgery by using pedicles to define the exposure, and to provide stabilization of the access system as it is anchored to the spine. When exposure is achieved, surgeons are now able to easily identify the pedicles as a basis for anatomical orientation. The integrated product platforms: MaXcess® MAS TLIF Access system, SpheRx® DBR® III Modular Pedicle Screw system, NVM5® Nerve Monitoring system, Osteocel® Plus cellular bone matrix, and CoRoent® interbody implants combine to provide a seamless solution that is designed to deliver safe, reproducible MAS TLIF surgery.

Cordially,



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MAS[®] TLIF: STANDARD TECHNIQUE

MAS[®] TLIF: STANDARD TECHNIQUE

MAS[®] TLIF SURGERY CONFIGURATION

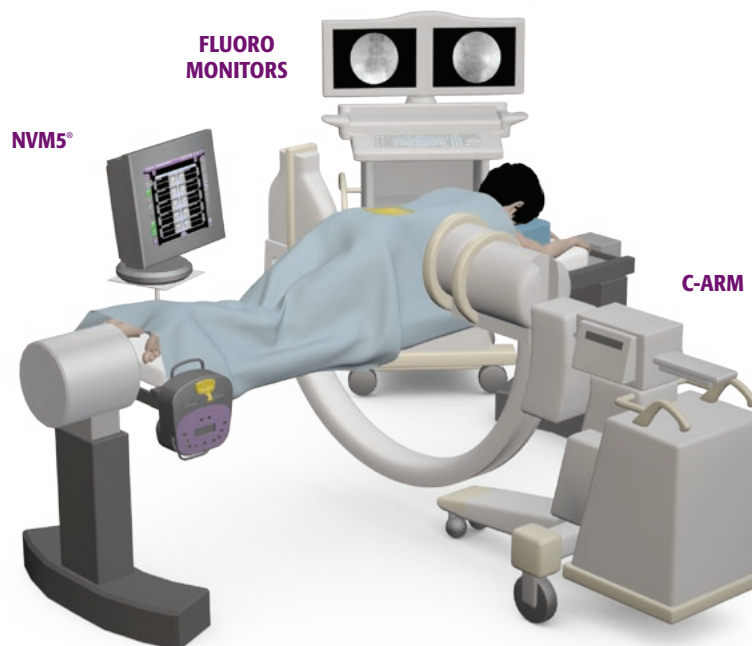
- MaXcess[®] MAS TLIF System
- Articulating Arm
- SpheRx[®] DBR[®] III Modular
- SpheRx DBR III
- Decompression Instruments
- Posterior General Instruments
- TLIF Instruments (not necessary with CoRoent[®] LO)
- CoRoent LO, LN, LW, LC (Options)
- OsteoCel[®] Plus, FormaGraft[®] (Options)
- NVM5[®] System
- NVM5 Disposables (including I-PAS[™] III)
- MaXcess MAS TLIF Disposables

Reference the SpheRx DBR III, CoRoent, and NVM5 Technique Guides or Reference Manual(s) and/or Instructions for Use (IFU) for additional important labeling information.

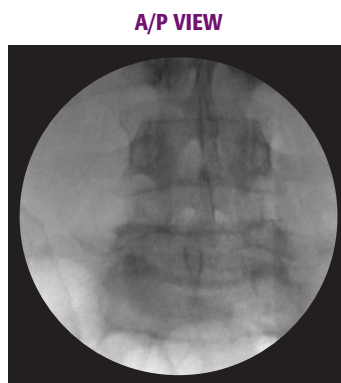
PATIENT POSITIONING AND O.R. SETUP

Position the patient on a radiolucent operating table in a prone position. A bedrail on the table is necessary in order to attach an Articulating Arm. Prepare and drape the patient in a conventional manner (*Fig. 1*).

Under fluoroscopy, adjust the table so that the C-Arm provides an A/P image when the orbital angle is at 90°. Adjust the cranial/caudal angle of the C-Arm to obtain a true A/P image of the targeted vertebra, and a true lateral image when the orbital angle is at 0° (*Figs. 2, 3*).



(*Fig. 1*)



(*Fig. 2*)



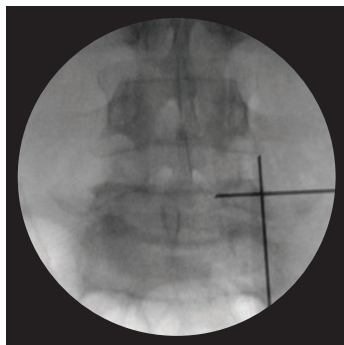
(*Fig. 3*)

MAS® TLIF: STANDARD TECHNIQUE

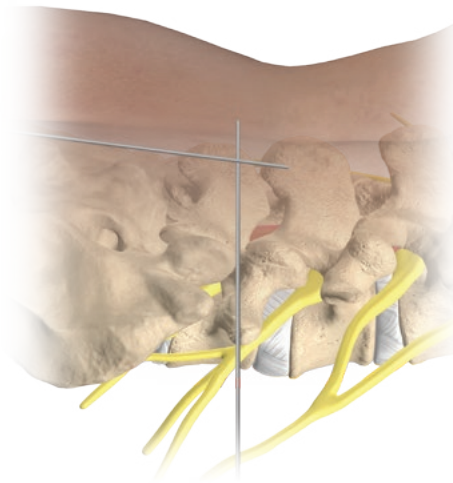
**STEP 1:
PEDICLE TARGETING**

Locate the affected level by using fluoroscopy in the A/P and lateral views. Obtain a true A/P image to identify and mark the starting location at each pedicle (*Figs. 4, 5*). It is recommended to obtain a distinct endplate view above the targeted pedicles. Contralateral pedicles may be targeted and marked in conjunction with the ipsilateral pedicles at this time.

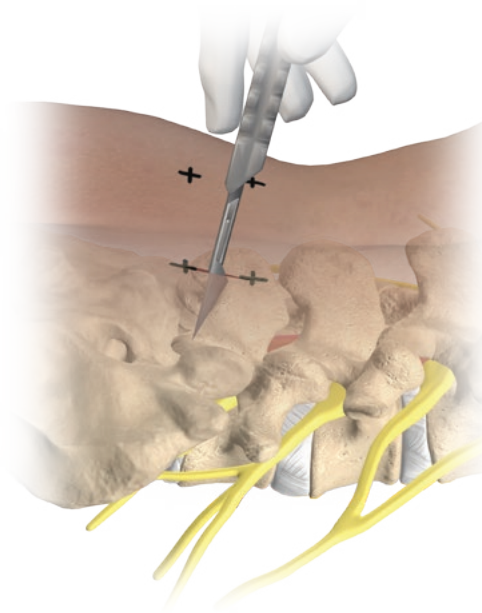
Make an approximately 3cm skin incision between the pedicle entry point markings on the ipsilateral side (*Fig. 6*).



(Fig. 4)



(Fig. 5)



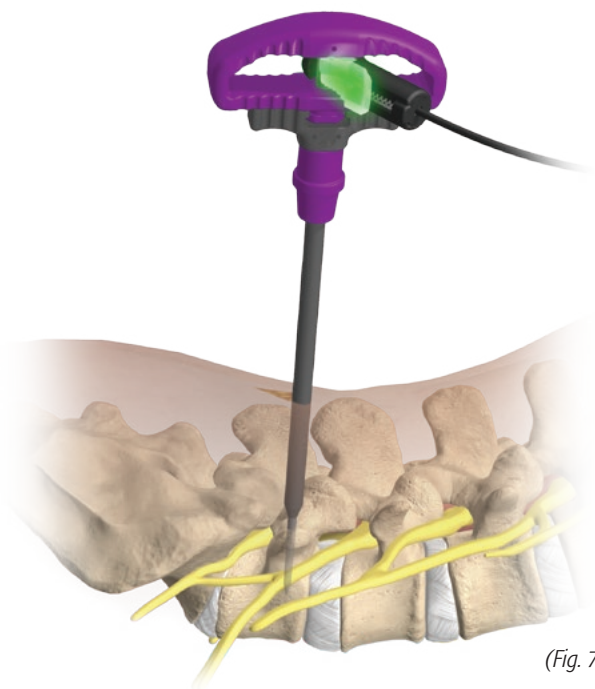
(Fig. 6)

MAS[®] TLIF: STANDARD TECHNIQUE**STEP 1:****PEDICLE TARGETING (CONT.)**

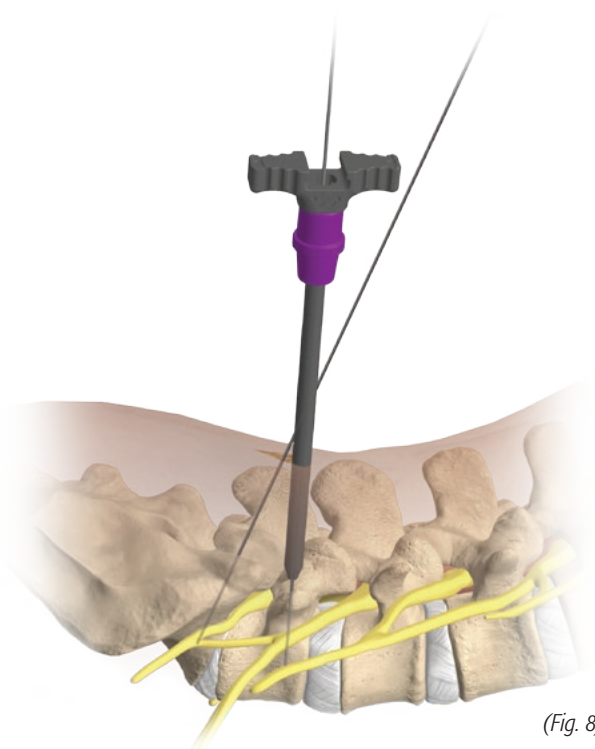
Connect the NVM5[®] Stimulation Clip to the I-PAS[™] III needle. Cannulate the pedicles with the I-PAS III needle, using a standard minimally disruptive pedicle targeting technique. Use NVM5 Dynamic Screw Test functionality throughout cannulation to provide stimulated EMG information in order to reduce the risk of pedicle wall violation (*Fig. 7*).

Remove the purple handle from the I-PAS III needle, place a K-Wire through the needle, and remove the needle using the black handle.

Repeat the cannulation technique described above for the other pedicles. Secure the contralateral K-Wires to the drape using towel clamps or similar instruments (*Fig. 8*).



(Fig. 7)



(Fig. 8)

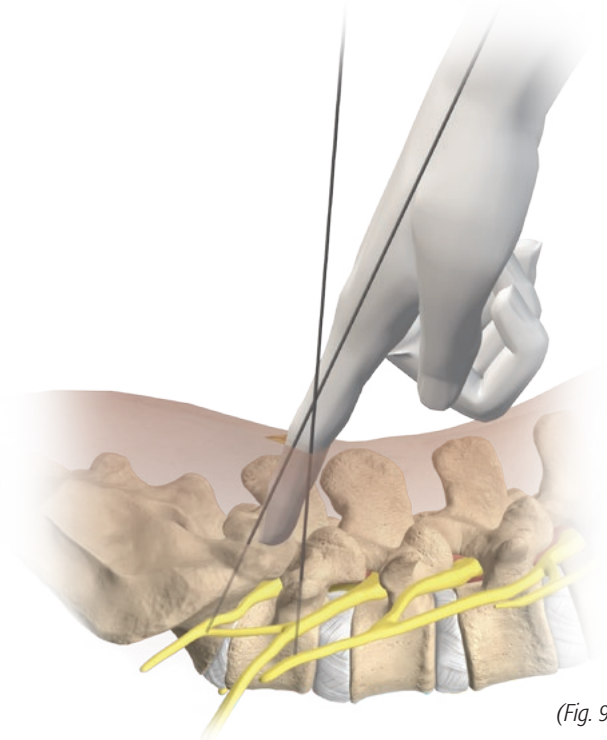
MAS® TLIF: STANDARD TECHNIQUE

STEP 2: EXPOSURE

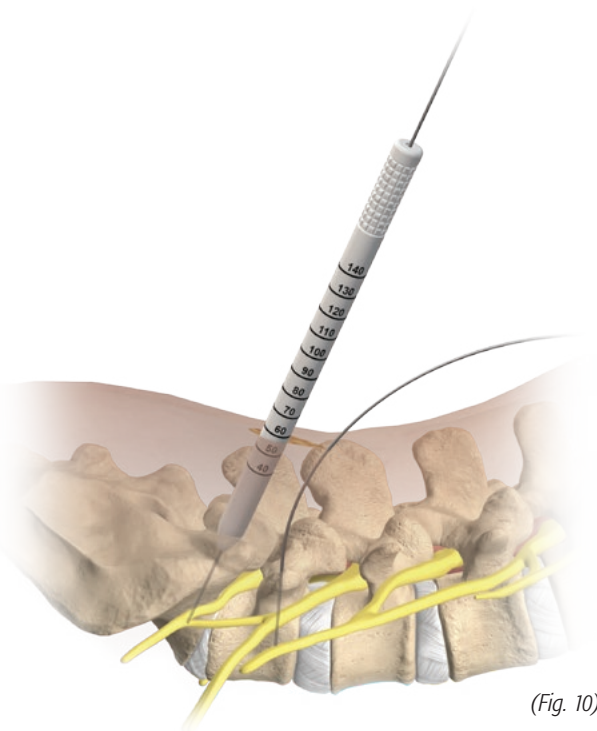
Release tissue from the facet joint between the ipsilateral K-Wires, using digital dissection, a Cobb, or Curette (*Fig. 9*). Ensure the space between K-Wires is free from fascia or tissue that would prevent Retractor Blades from being placed.

Place 1st Dilator over one of the K-Wires down to the spine. Take a measurement using the external scale on the Dilator to select the appropriate Retractor Blade length (*Fig. 10*). Select a blade length as indicated by the first marking that is above the skin, and note whether it is a right or left Blade, as viewed by the surgeon.

Place the K-Wire Gauge over the K-Wire and use the measurements on the proximal end to determine the length of the K-Wire in the bone. This can be used to select the appropriate Screw Shank length (*Fig. 11*).



(Fig. 9)



(Fig. 10)



(Fig. 11)

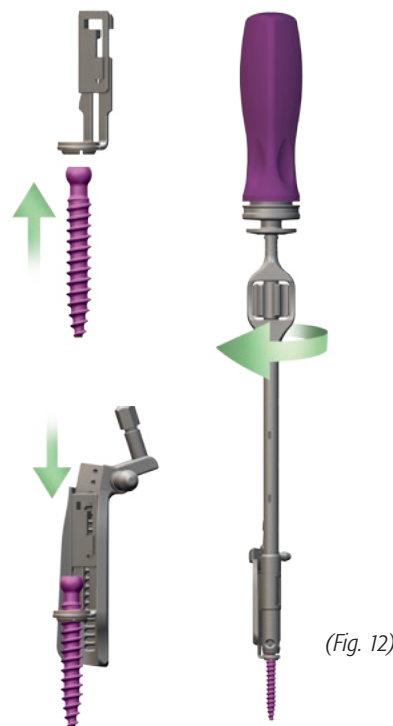
MAS® TLIF: STANDARD TECHNIQUE

STEP 2: EXPOSURE (CONT.)

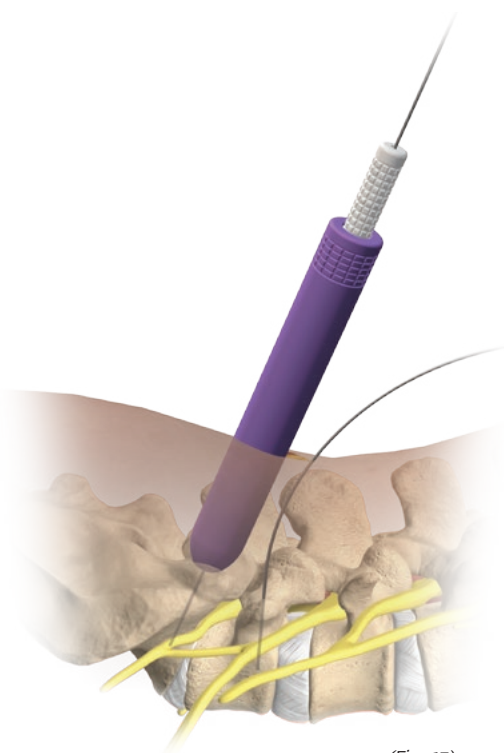
The scrub assistant will then assemble the proper Blade, Hoop Shim, Screw Shank, and MAS® TLIF Shank Driver while the surgeon is tapping the pedicle (*Fig. 12*). Ensure that a cannulated Screw Shank is used, since it will be placed over the K-Wire.

Place the 2nd Dilator over the 1st Dilator down to the spine (*Fig. 13*).

Remove the 1st Dilator, select the appropriate Tap, and place over the K-Wire down to the spine. Attach the NVM5® Stimulation Clip onto the Tap, and activate NVM5 to obtain dynamic monitoring readings while tapping (*Fig. 14*).



(Fig. 12)



(Fig. 13)



(Fig. 14)

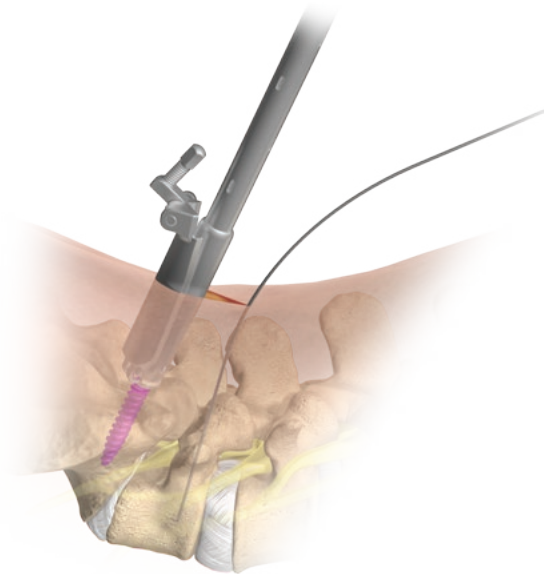
MAS® TLIF: STANDARD TECHNIQUE

**STEP 2:
EXPOSURE (CONT.)**

Remove the 2nd Dilator. Place the Screw Shank/Blade assembly over the K-Wire, and drive the Screw Shank into the pedicle until either the distal end of the Shank Driver or the Blade bottoms out on bone (*Fig. 15*). The K-Wire may be removed after the Screw Shank enters the posterior portion of the vertebral body. Release Shank Driver from the Screw Shank and withdraw from the Blade (*Figs. 16, 17*).

NOTE:

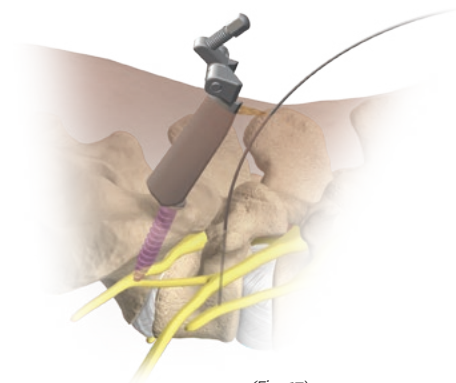
To ensure the Retractor will have adequate mobility throughout the procedure, it is best to stop advancing the Screw Shank/Blade assembly when resistance is encountered. The Screw Shank may be advanced to the desired depth following head attachment later in the procedure.



(Fig. 15)



(Fig. 16)

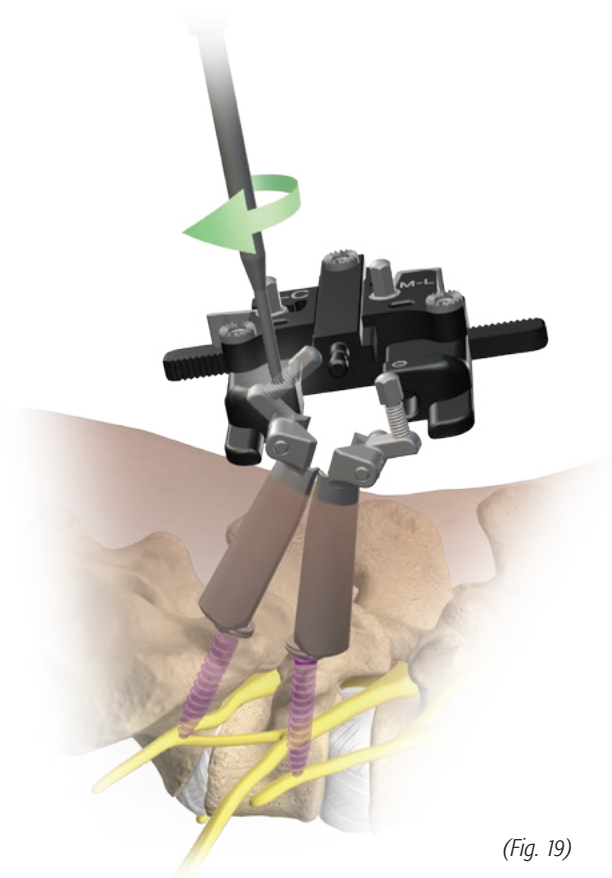


(Fig. 17)

MAS[®] TLIF: STANDARD TECHNIQUE**STEP 2:
EXPOSURE (CONT.)**

Repeat Blade and Screw Shank measurement for the K-Wire in the other ipsilateral pedicle at the TLIF level. Tap and place the other Screw Shank/Blade assembly, as in the previous sequence (*Fig. 18*).

Rotate the Blades so that the post on the proximal end of each Blade points medial. Insert posts into the Retractor Body and tighten set screws to secure Blades to the Retractor Body (*Fig. 19*).

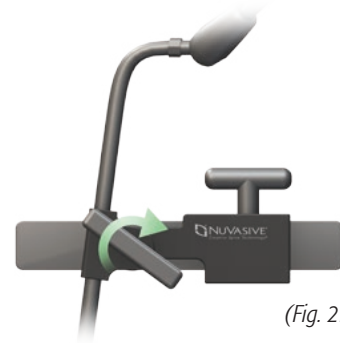
*(Fig. 18)**(Fig. 19)*

MAS[®] TLIF: STANDARD TECHNIQUE**STEP 2:
EXPOSURE (CONT.)**

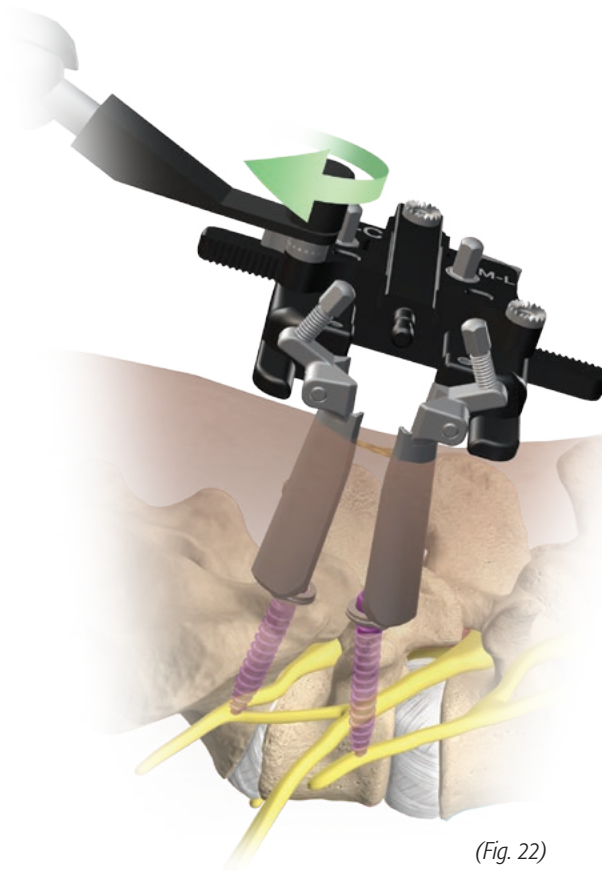
Attach the Articulating Arm Rail Clamp to the bedrail of the surgical table (*Fig. 20*). Place the Articulating Arm post through the Rail Clamp, adjust to the desired height, and lock into position by tightening the handle on the Rail Clamp (*Fig. 21*). Attach the opposite end of the Articulating Arm to the Retractor Body (*Fig. 22*).



(Fig. 20)



(Fig. 21)

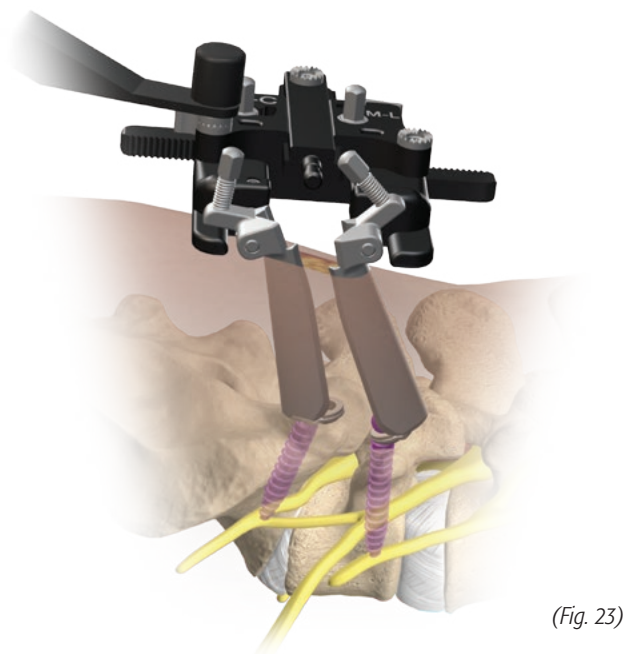


(Fig. 22)

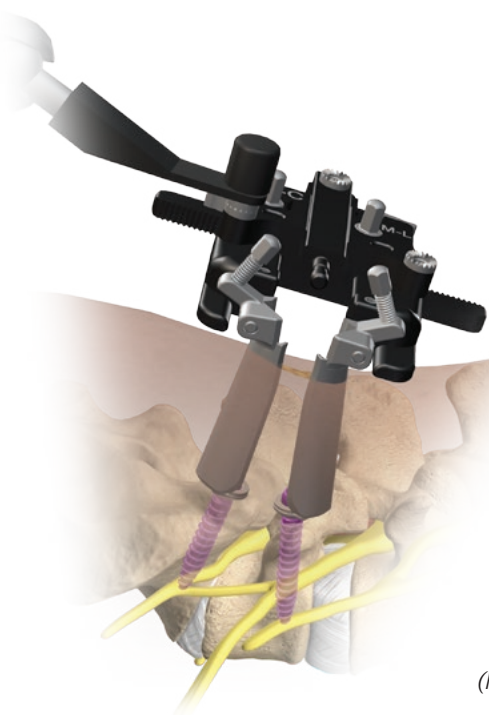
MAS[®] TLIF: STANDARD TECHNIQUE

STEP 2: EXPOSURE (CONT.)

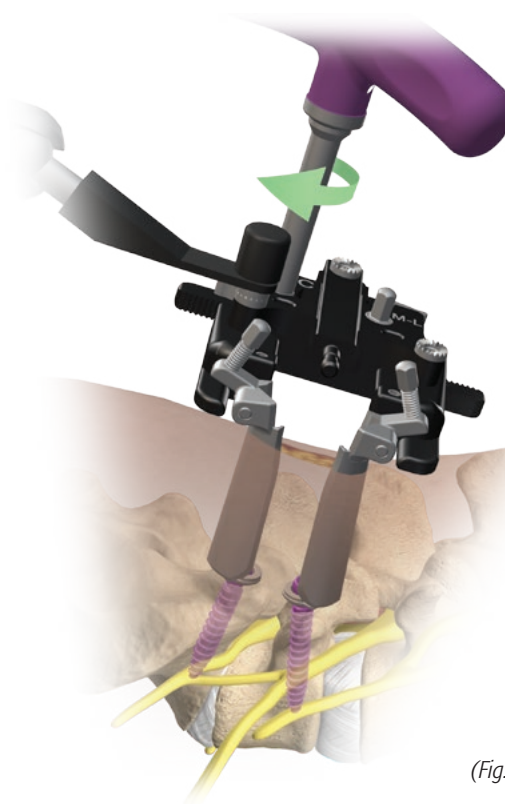
Position Retractor so that the Blades are parallel to the disc space, and so that the proper medial exposure trajectory is achieved (*Figs. 23, 24*). Lock the Articulating Arm by tightening the Articulating Arm handle. Place the Retractor T-Handle onto the hex, labeled C-C (cranial/caudal) on the Retractor Body, and turn clockwise to gain additional proximal exposure, if necessary (*Fig. 25*).



(Fig. 23)



(Fig. 24)

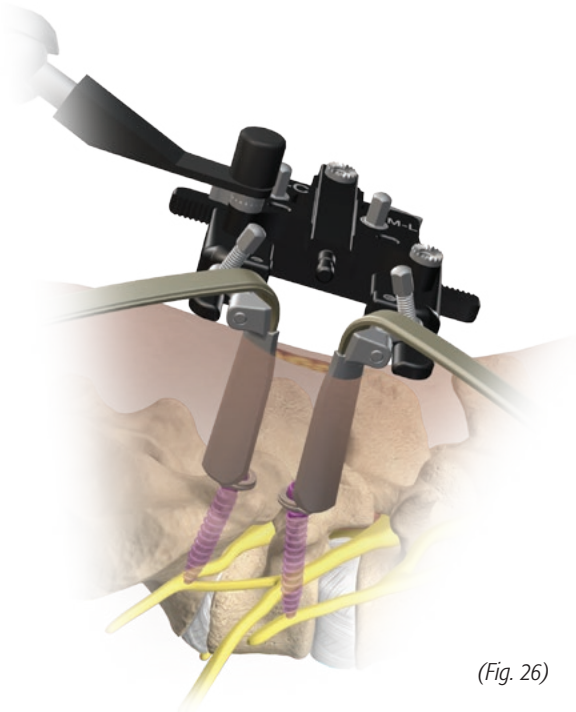


(Fig. 25)

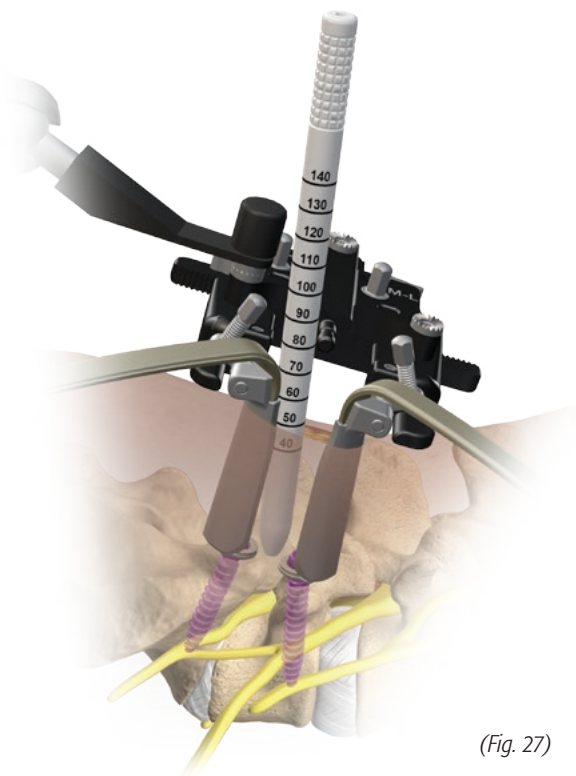
MAS[®] TLIF: STANDARD TECHNIQUE**STEP 2:
EXPOSURE (CONT.)**

Insert Light Cable tips approximately halfway down each of the right and left Blades, bend flush to the Retractor Body, and attach the other end of the Light Cable to a light source (*Fig. 26*).

Palpate the facet joint with the index finger for anatomical reference. Use a small Cobb to elevate tissue from the facet capsule and lamina medial to the facet joint. Place the 1st Dilator through the exposure, down to the lamina, just medial to the facet joint. Select a center Blade based on the measurement at the center Blade post on the Retractor Body (*Fig. 27*).



(Fig. 26)



(Fig. 27)

MAS[®] TLIF: STANDARD TECHNIQUE

STEP 2: EXPOSURE (CONT.)

Attach the appropriate center Blade onto the Medial Blade Handle so the Handle points in the same direction as the curve on the distal end of the center Blade (*Fig. 28*). Place the center Blade through the exposure down to the facet joint and attach it to the center arm on the Retractor Body (*Fig. 29*). Tighten the set screw that secures the center Blade to the Retractor Body with the Set Screwdriver and remove the Handle (*Figs. 29, 30*).

NOTE:

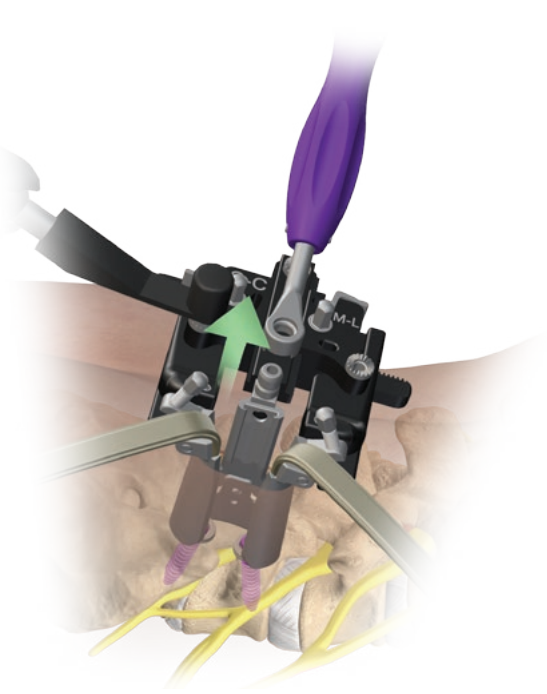
The center rack on the Retractor Body may be adjusted laterally to engage the center Blade as it is positioned on top of the facet joint.



(Fig. 28)



(Fig. 29)

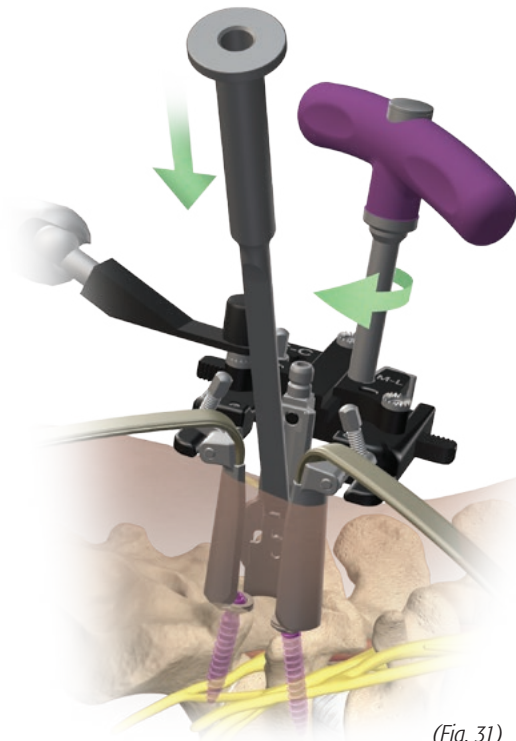


(Fig. 30)

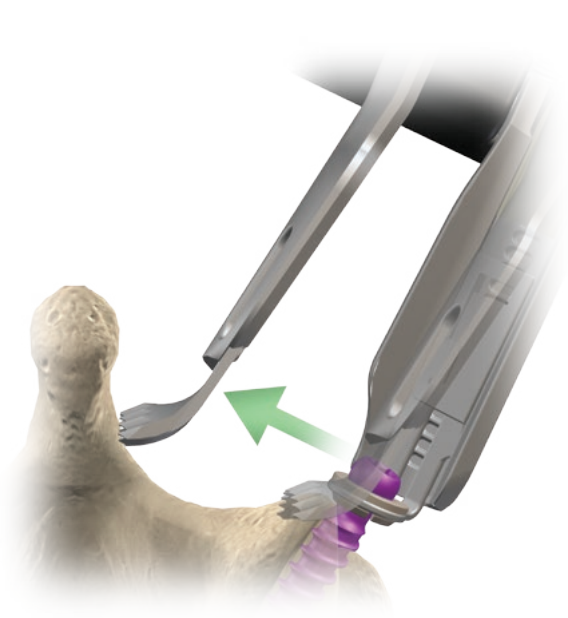
MAS® TLIF: STANDARD TECHNIQUE

**STEP 2:
EXPOSURE (CONT.)**

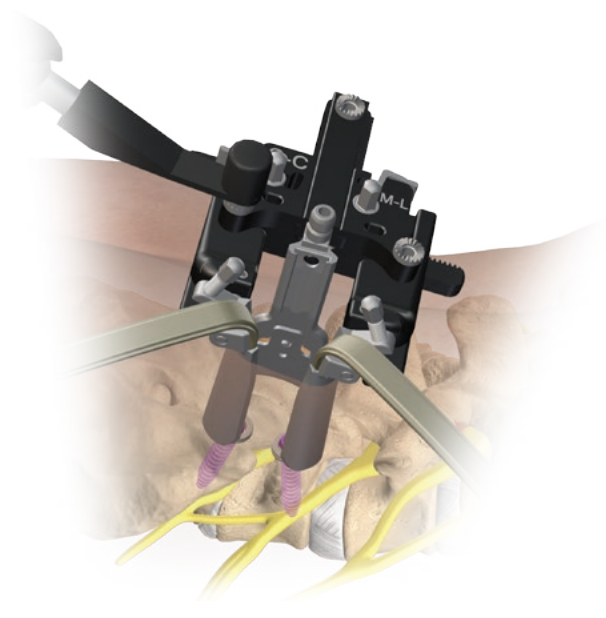
The adjustable extension on the center Blade is intended to elevate tissue while following the topography of the facet, lamina, and base of the spinous process as it is retracted medial. Place the Shim Adjuster down the center Blade to apply light downward pressure on the adjustable Blade extension. Position the Retractor T-Handle onto the hex on the Retractor Body labeled M-L (medial/lateral), and then turn clockwise to retract medial (Figs. 31-33).



(Fig. 31)



(Fig. 32)



(Fig. 33)

MAS[®] TLIF: STANDARD TECHNIQUE

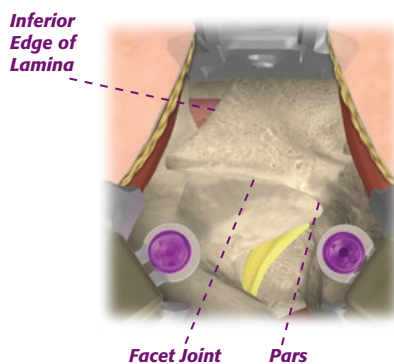
STEP 3:

FACETECTOMY AND DECOMPRESSION

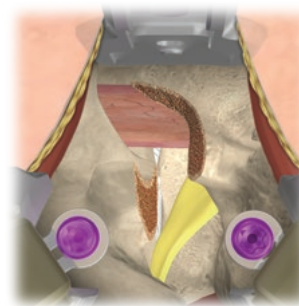
Locate the pedicle Screw Shank heads at the base of each of the cranial/caudal Blades. Identify the key anatomy, such as the facet joint, pars, and inferior edge of the lamina, based upon their location relative to the pedicles (Fig. 34).

Perform the facetectomy by first using the Facet Rongeur to debulk the facet joint. A burr can be used to thin the remainder of the facet complex, and Kerrison Rongeurs can be used to complete the facetectomy and decompression (Fig. 35).

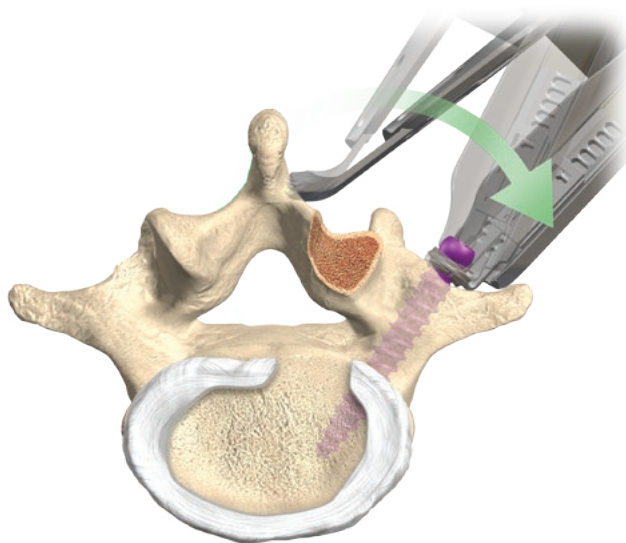
If necessary, loosen the Articulating Arm and tilt the Retractor Body to obtain a more medial trajectory to perform a contralateral decompression. The Retractor pivots about the heads of the Screw Shanks and maintains proper position while undercutting the spinous process (Figs. 36, 37).



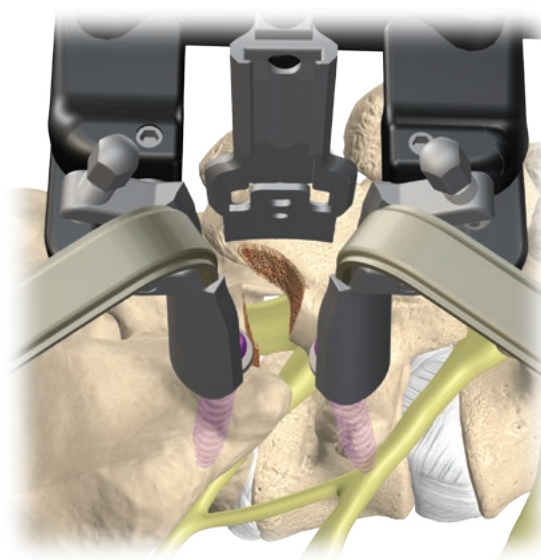
(Fig. 34)



(Fig. 35)



(Fig. 36)



(Fig. 37)

MAS® TLIF: STANDARD TECHNIQUE

STEP 4:
DISTRACTION (OPTIONAL)

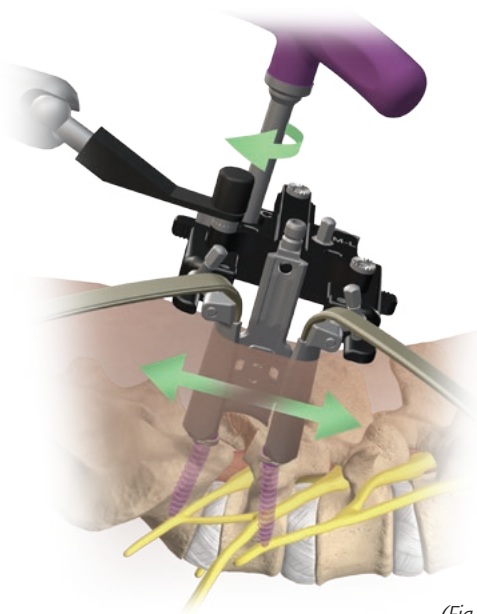
If distraction is warranted, place the Retractor T-Handle onto the Blade distraction bolts and turn clockwise until the bottom of the bolts touch the Retractor Body (*Fig. 38*). This will then keep the Blades from tilting inward when using the C-C adjustment to open the Retractor. Place the Retractor T-Handle onto the hex, labeled C-C on the Retractor Body, and turn clockwise to distract off the Screw Shanks (*Fig. 39*).

NOTE:

Care must be taken to avoid damaging the pedicles, which could compromise pedicle screw purchase. An alternative approach is to wait until the disc space has been evacuated. First, use an interbody sizer or Trial to distract the disc space, and then follow the previous steps to hold distraction.



(Fig. 38)

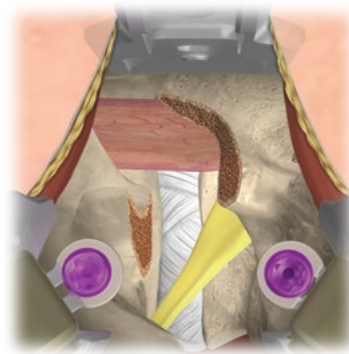


(Fig. 39)

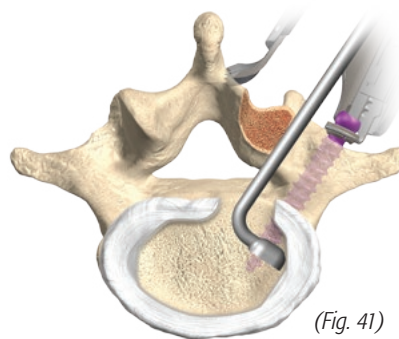
MAS[®] TLIF: STANDARD TECHNIQUE

STEP 5: DISC AND ENDPLATE PREPARATION

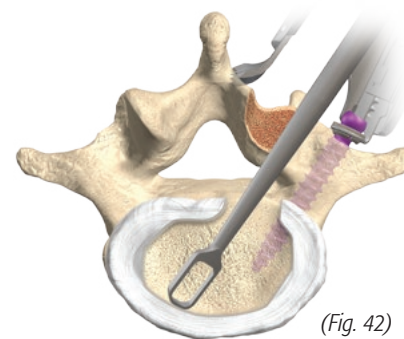
Make an annulotomy and perform a conventional discectomy (*Fig. 40*). Using a combination of Pituitary Rongeurs, Disc Cutters, Endplate Scrapers, Curettes, and Rasps, remove as much disc material from the disc space as possible. Portions of the disc space that are often difficult to access during a TLIF (i.e., contralateral/posterior, ipsilateral/anterior) may be effectively prepared using a variety of angled Curettes and Rasps (*Figs. 41-43*). Thoroughly prepare endplates to remove cartilage and expose bleeding subchondral bone to create an ideal fusion environment (*Fig. 44*).



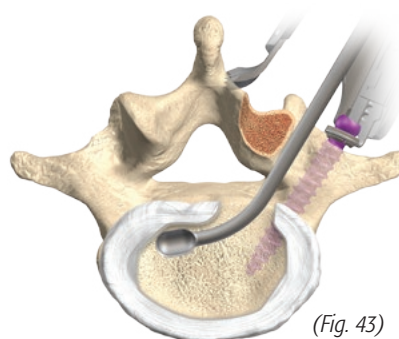
(*Fig. 40*)



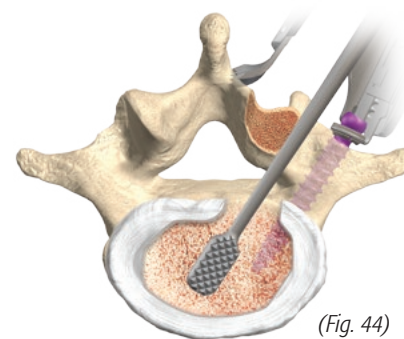
(*Fig. 41*)



(*Fig. 42*)



(*Fig. 43*)



(*Fig. 44*)

MAS[®] TLIF: STANDARD TECHNIQUE

STEP 6: INTERBODY IMPLANT SIZING

If the Retractor was used to distract the disc space, release distraction by turning the distraction bolts on the Blades counterclockwise until the bolts no longer touch the Retractor Body. This will reduce the possibility that distraction from the Screw Shanks will interfere with proper implant sizing.

NOTE:

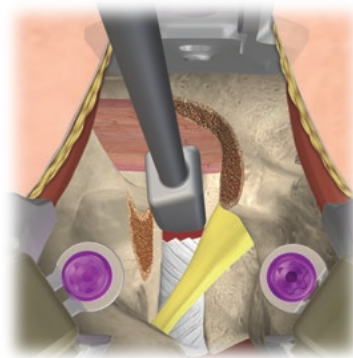
The implant sizing technique will depend upon the particular interbody implant system used. Please refer to the associated technique guide or brochure for sizing and placement details.

While NuVasive[®] offers a variety of interbody implant systems uniquely designed for different interbody grafting techniques and implant orientations, the CoRoent[®] LO implant placement summary is shown as an example in this technique.

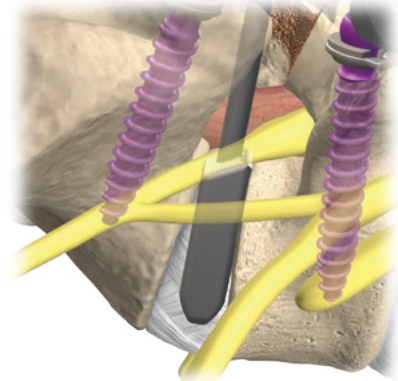
If the CoRoent LO system is selected, choose the appropriately sized starting Trial. Attach a T-Handle and insert the Trial into the disc space, using an oblique trajectory with the final disc height dimension oriented in the plane of the disc (Figs. 45, 46).

When rotating the Trial to height, ensure that the "MEDIAL" and "LATERAL" markings are in the correct orientation upon completion (Fig. 47).

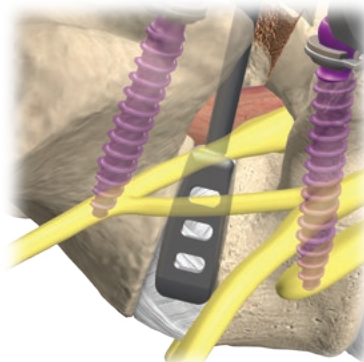
Once the proper height and length have been determined using tactile feel and a lateral fluoroscopy image, obtain an A/P image to ensure the distal end of the Trial crosses the midline of the disc (Fig. 48).



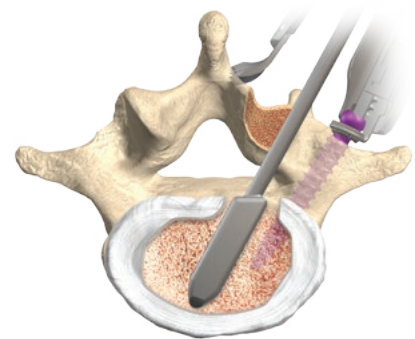
(Fig. 45)



(Fig. 46)



(Fig. 47)



(Fig. 48)

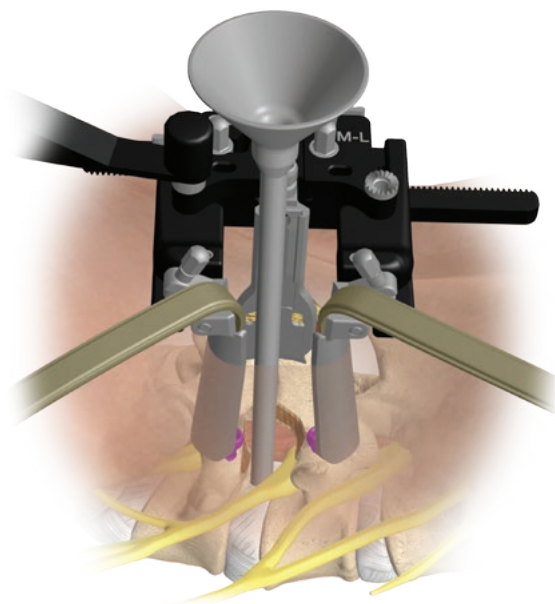
MAS[®] TLIF: STANDARD TECHNIQUE

STEP 7: GRAFTING

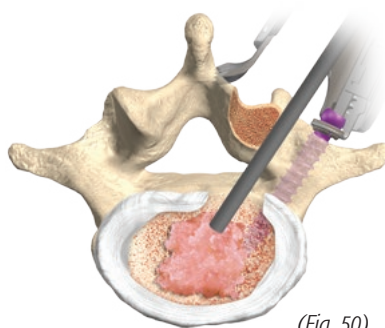
Place Osteocel[®] Plus or other bone graft material into the intervertebral disc space to promote fusion. In order to facilitate graft distribution within the disc space, Bone Funnels found in the Thoracolumbar Graft Containment Set may be used to direct the graft material towards the ipsilateral, anterior, and contralateral portions of the intervertebral disc space (*Figs. 49-53*). To maximize graft compaction and to ensure the interbody implant is inserted properly, reinsert the appropriately sized Trial into the disc space.



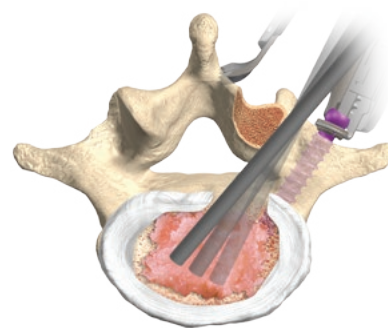
OSTEOCEL PLUS



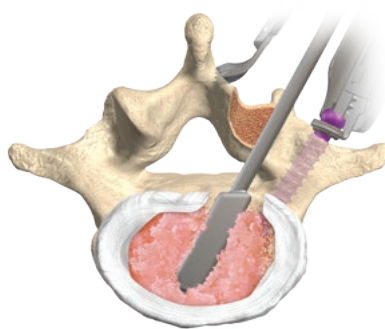
(Fig. 49)



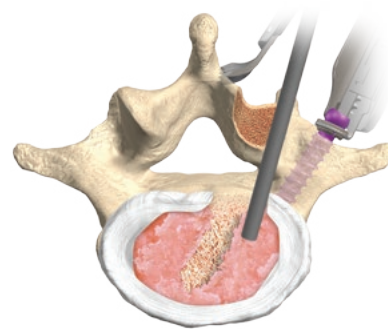
(Fig. 50)



(Fig. 51)



(Fig. 52)



(Fig. 53)

MAS® TLIF: STANDARD TECHNIQUE

STEP 8: IMPLANT INSERTION

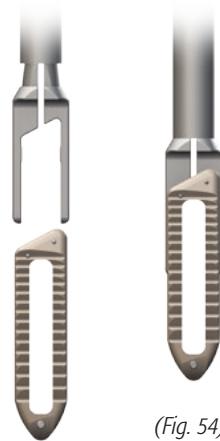
If the CoRoent® LO system is being used, place the appropriately sized implant onto the Inserter and tighten (Fig. 54). Pack the implant with autograft and the intervertebral disc space with bone graft material. (Although Osteocel® Plus may be placed in the interbody space, CoRoent interbody devices are only cleared for use when packed with autograft.) Insert the implant into the interbody space, using an oblique trajectory with the final implant height dimension oriented in the plane of the disc (Fig. 55).

When rotating the implant to height, ensure that the "MEDIAL" and "LATERAL" markings on the Inserter are in the correct orientation upon completion (Fig. 56).

Prior to releasing the implant from the Inserter, use lateral and A/P fluoro to ensure proper implant placement. After releasing, the implant position may be adjusted using an implant tamp (Fig. 57).

Additional graft material may be placed around the implant following insertion using the Bone Funnel.

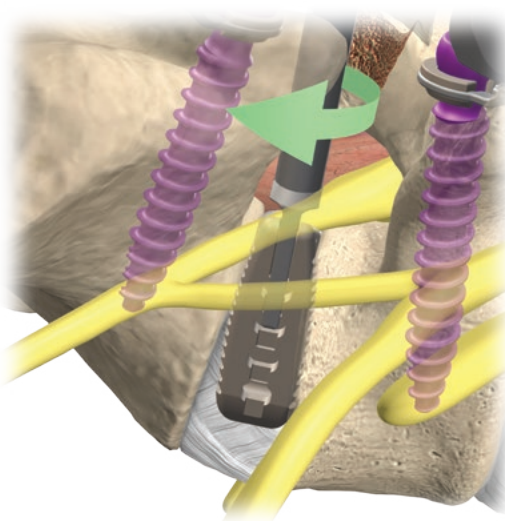
Release distraction if distraction was used. This is performed by either slightly closing the Retractor, or turning the distraction bolts on the Blades counterclockwise.



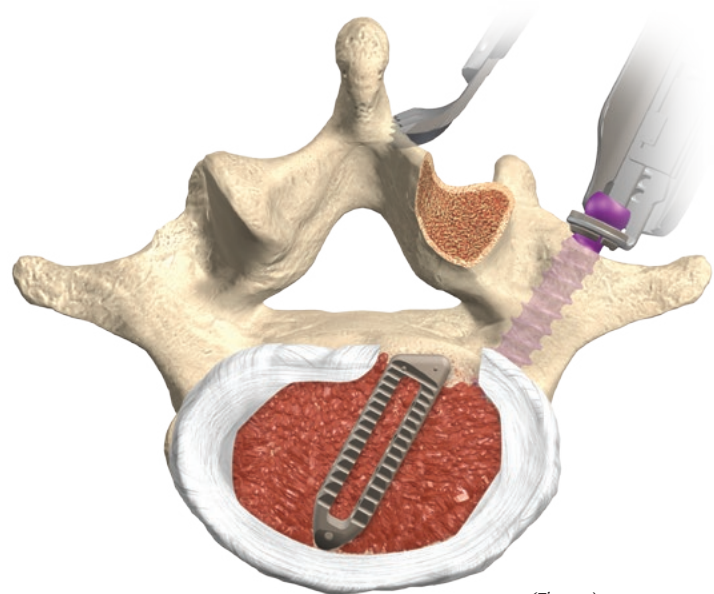
(Fig. 54)



(Fig. 55)



(Fig. 56)



(Fig. 57)

MAS[®] TLIF: STANDARD TECHNIQUE

STEP 9: SPHERX[®] DBR[®] III MODULAR HEAD ATTACHMENT AND ROD PLACEMENT

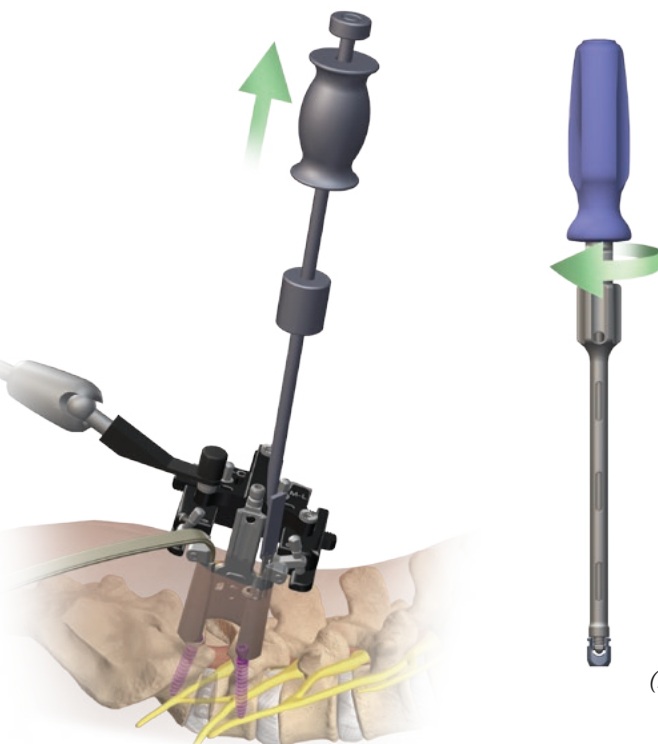
Place the Hoop Shim Removal Tool down the shim track of the right or left Blade until it engages the Hoop Shim. Gently use the Hoop Shim Removal Tool to provide upward force, which will unlock the Hoop Shim from the Screw Shank and withdraw it from the Blade (*Fig. 58*). Repeat with the opposite Blade to disengage the other Hoop Shim. If necessary, the Blades can be expanded to gain additional space around Screw Shank heads to facilitate Tulip attachment.

Attach a SpherX DBR III Modular Tulip to the DBR III Modular Head Inserter by engaging the Tulip and threading the knob on the Inserter counterclockwise to secure (*Fig. 59*).

Place the Tulip through the exposure onto one of the exposed Screw Shanks and press down firmly (*Fig. 60*). Pressing down using an orbital motion may help to engage the Tulip.

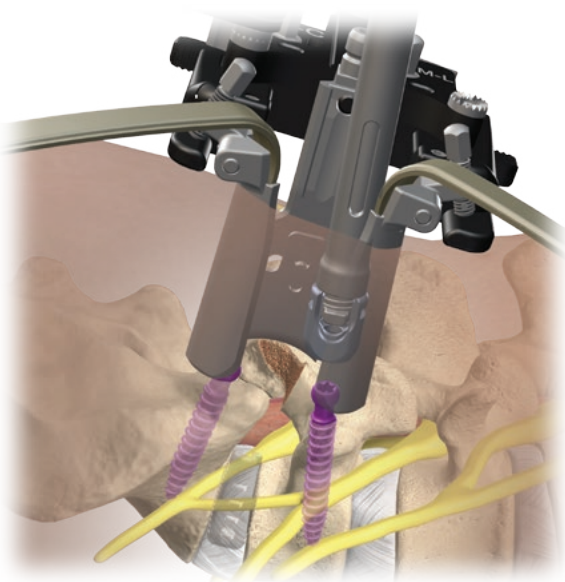
The Verification Torque T-Handle must be used with the Head Inserter to verify the Tulip is properly attached to the Screw Shank. Refer to the SpherX DBR III Technique Guide for further details on its proper use (*Fig. 61*).

Release the Tulip from the Head Inserter by unthreading the knob on the Inserter. Repeat the previously described process to attach the other SpherX DBR III Modular Tulip.



(*Fig. 59*)

(*Fig. 58*)



(*Fig. 60*)



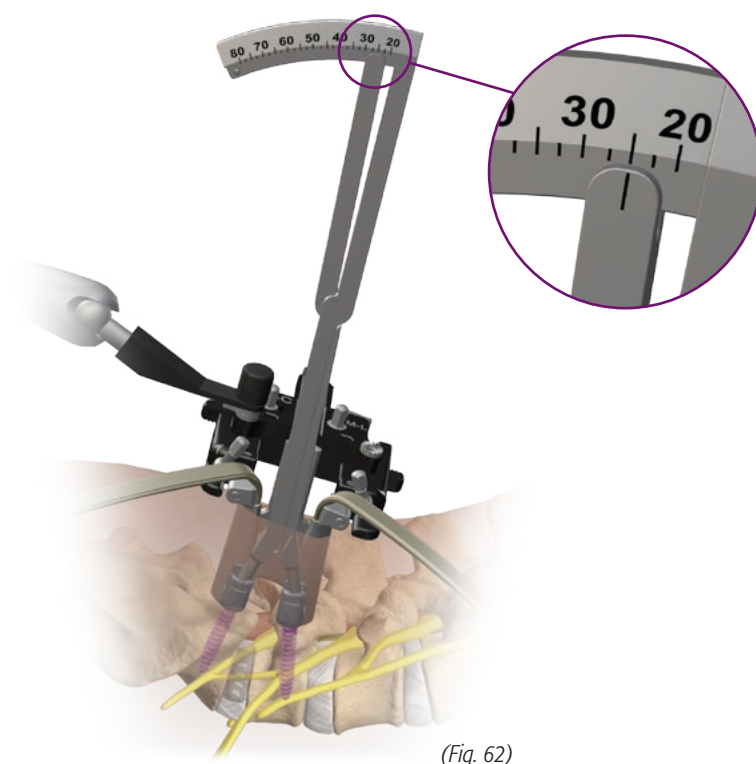
(*Fig. 61*)

MAS[®] TLIF: STANDARD TECHNIQUE**STEP 9:****SPHERX[®] DBR[®] III MODULAR HEAD
ATTACHMENT AND ROD PLACEMENT (CONT.)**

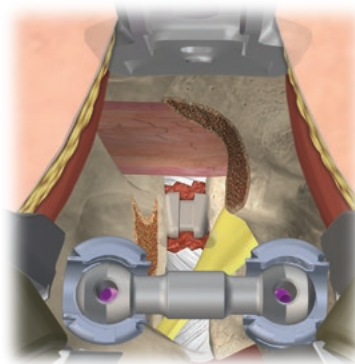
If necessary, use the Screw Head Adjuster from the SpheRx DBR III system to adjust the height of the screws to the desired final position.

Also if necessary, use the Screw Head Adjuster from the SpheRx DBR III system to position the Tulips in the proper orientation. Place the ball ends of the Caliper into the Tulips and take a measurement (Fig. 62).

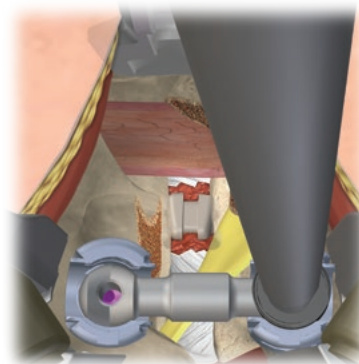
Select the corresponding DBR III Rod from the DBR III implant tray and place into the Tulips (Fig. 63). With the Rod fully seated into the Tulips, insert the SpheRx DBR III Modular Lock Screws, using the Lock Screw Starter (Fig. 64). If necessary, align the “timing marks” on the Lock Screw and the Tulip prior to insertion to facilitate thread engagement.



(Fig. 62)



(Fig. 63)



(Fig. 64)

MAS[®] TLIF: STANDARD TECHNIQUE

STEP 9:

SPHERX[®] DBR[®] III MODULAR HEAD ATTACHMENT AND ROD PLACEMENT (CONT.)

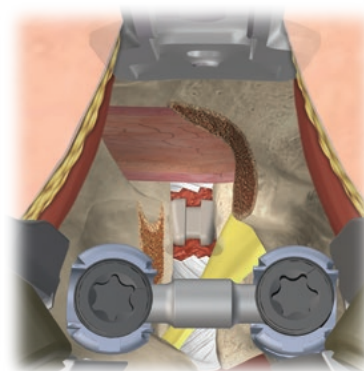
Place the Counter-Torque over one of the Tulips. With the Torque T-Handle engaged to the Lock Screw Driver, place through the Counter-Torque to engage the Lock Screw, and tighten until the T-Handle breaks free (*Fig. 65*). Repeat with the other Tulip (*Fig. 66*).

Alternatively, the Tulips may be placed with DBR III Guides attached, using the Head Inserter and Verification Torque T-Handle. This is typically performed to enable multiple-level DBR III fixation (e.g., to apply DBR III to additional levels of XLIF[®]).

Refer to the DBR III Technique Guide for detailed instructions.



(Fig. 65)



(Fig. 66)

MAS® TLIF: STANDARD TECHNIQUE**STEP 10:
CONTRALATERAL FIXATION USING
SPHERX® DBR® III**

Use the technique described in the SpheRx DBR III Technique Guide to assemble a SpheRx DBR III Modular Tulip to a cannulated DBR III Modular Screw Shank in the SpheRx DBR III Modular cannulated screw caddy, and use the Verification Torque T-Handle to verify proper attachment. Attach the assembled screw to a DBR III Guide. Place the SpheRx DBR III Screwdriver through the Guide, engage the screw, and tighten. Repeat for the second screw.

Follow the standard SpheRx DBR III Technique Guide to place the screws over the remaining K-Wires that were used in Step 1 (refer to page 6 of this MAS® TLIF procedure). Apply the standard DBR III Rod measurement and delivery technique with SpheRx DBR III Modular Lock Screws. Final tighten with the DBR III Counter-Torque and Torque T-Handle.

Refer to the SpheRx DBR III Technique Guide for detailed instructions on the use of the DBR III system.

**STEP 11:
CLOSURE**

Close the Retractor and remove from the exposure. Close the muscle layers and skin, using standard closure techniques.



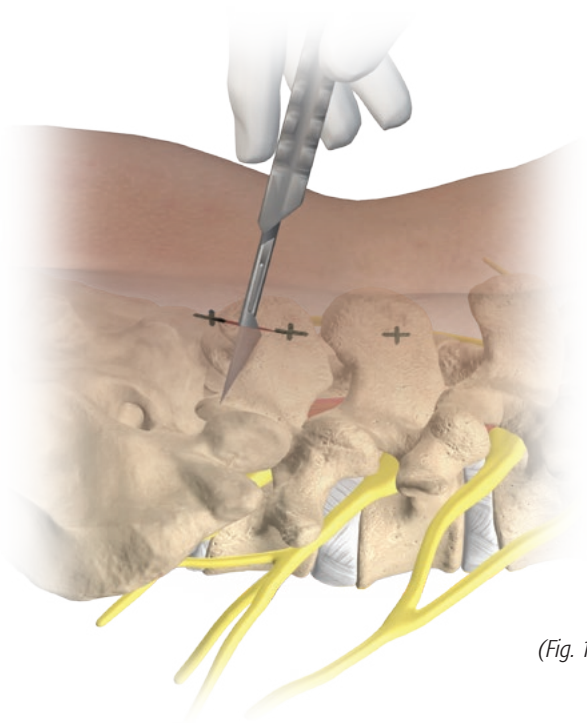
MAS[®] TLIF MULTI-LEVEL: MARCHING TECHNIQUE

MAS[®] TLIF MULTI-LEVEL: MARCHING TECHNIQUE

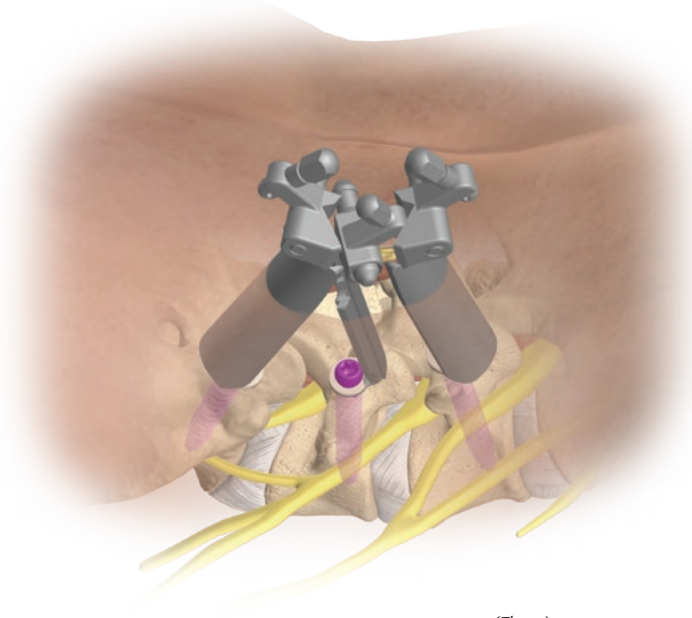
STEP 1: PEDICLE TARGETING

Identify and mark the starting location at all three pedicles. Connect the incision from the superior to the inferior pedicle entry points (*Fig. 1*).

Follow the recommended pedicle cannulation technique, and determine the proper Blade and screw size for each level. Tap and place Screw Shank/Blade assemblies in all three pedicles, ensuring an Ambiblade is used at the middle level (*Fig. 2*).



(Fig. 1)



(Fig. 2)

MAS[®] TLIF MULTI-LEVEL: MARCHING TECHNIQUE

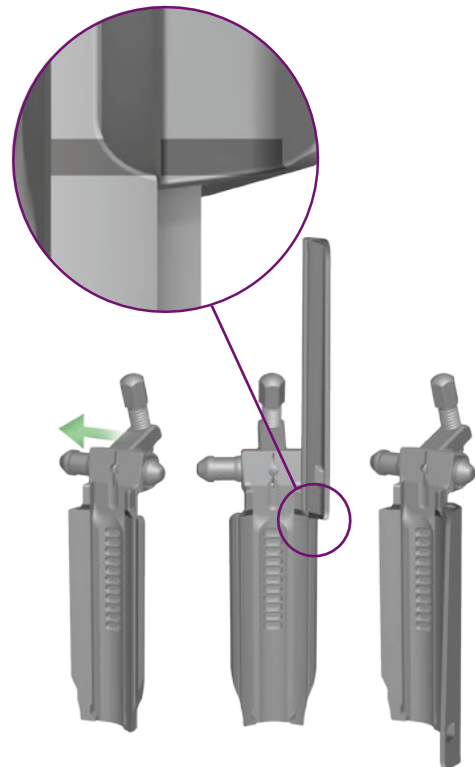
STEP 2: EXPOSURE

With the Ambiblade in the proper orientation, push the post toward the Retractor (*Fig. 3*). Attach the Retractor to the Blades at the first level. The third Blade will remain unattached.

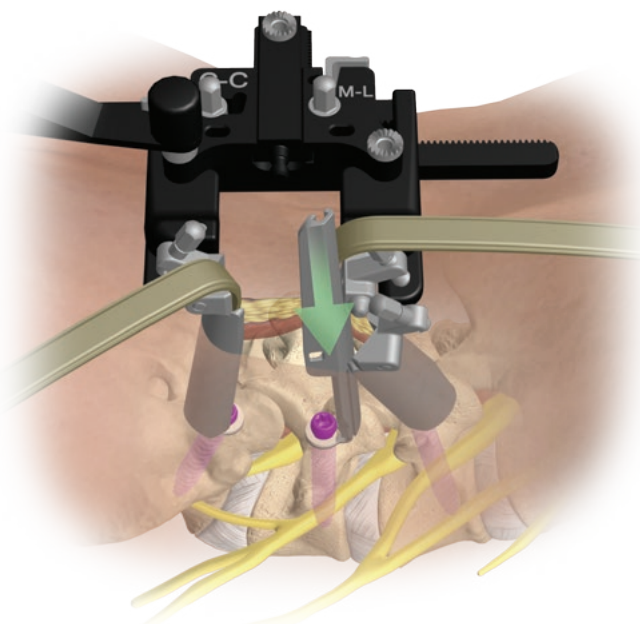
An Ambiblade Shim can be used to enhance the lateral exposure (*Fig. 4*). To engage the shim, match the laser marks between the blade and the shim so that they align with no gap. Tissue may be retracted using a hand-held Retractor to facilitate shim placement.

Following the recommended technique, attach the Articulating Arm, position the Retractor, elevate tissue from the lamina, and measure and place the Medial Blade (*Fig. 5*).

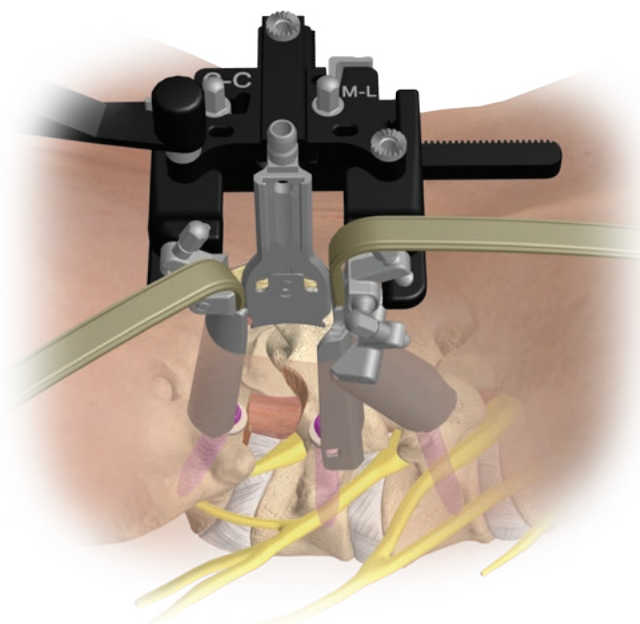
Perform a standard MAS[®] TLIF at the first level.



(Fig. 3)



(Fig. 4)



(Fig. 5)

MAS[®] TLIF MULTI-LEVEL: MARCHING TECHNIQUE

STEP 2: EXPOSURE (CONT.)

Complete the TLIF at the first level then release medial retraction and remove the Medial Blade.

Remove the shim from the Ambiblade (if used) with the Ambiblade Shim Hook.

Detach the MAS[®] TLIF Retractor from the first level.

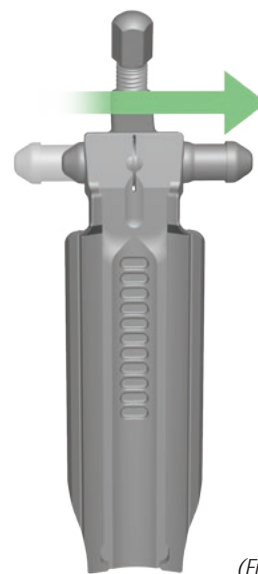
Rotate the Ambiblade and push the Ambiblade post through to the proper orientation so that it now becomes the opposite Blade (*Fig. 6*).

Connect the Retractor to the second level with the Ambiblade now acting as the opposite Blade. The first Blade will remain attached to the Screw Shank.

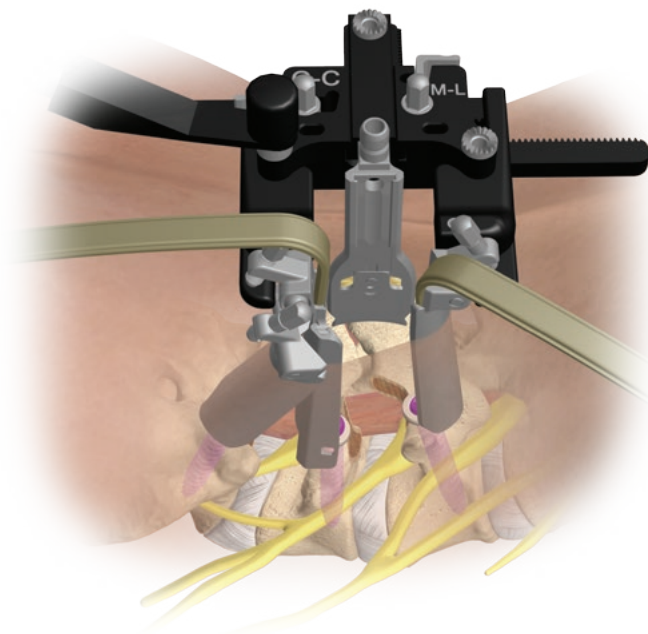
Place the Ambiblade Shim, if necessary.

Follow the recommended technique to attach the Articulating Arm, position the Retractor, elevate tissue medially, and measure and place the Medial Blade (*Fig. 7*).

Perform a standard MAS TLIF at the second level.



(Fig. 6)



(Fig. 7)

MAS[®] TLIF MULTI-LEVEL: MARCHING TECHNIQUE

STEP 3: SPHERX[®] DBR[®] III MODULAR HEAD ATTACHMENT AND ROD PLACEMENT

Complete the TLIF at the second level then remove Ambiblade Shim (if used) with the Ambiblade Shim Hook.

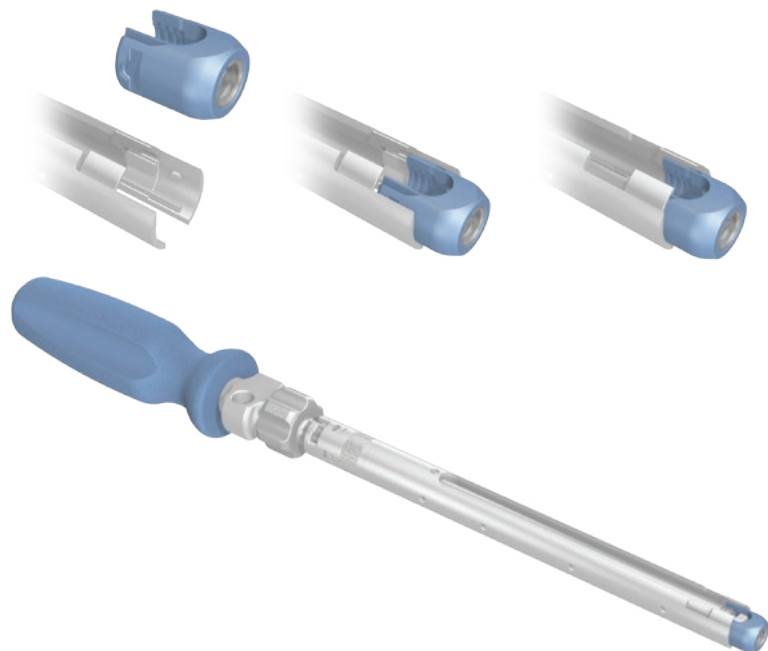
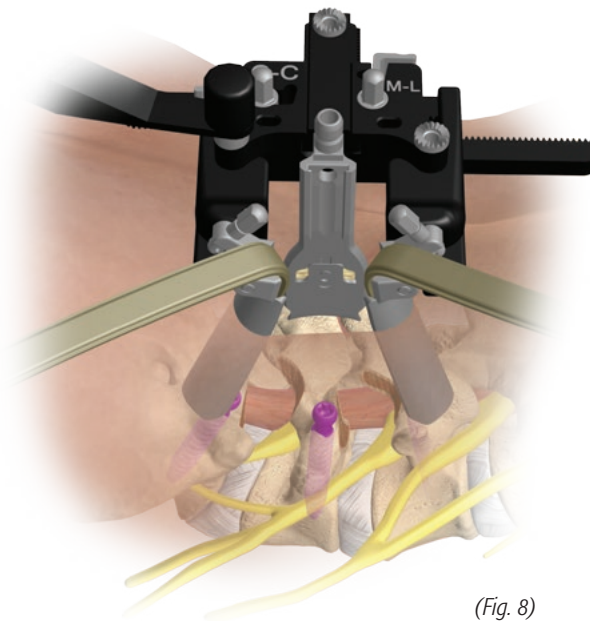
Release the Retractor from the Ambiblade and reconnect the Retractor to the first Blade so that the Retractor now spans the two levels (*Fig. 8*).

Use the Hoop Shim Removal Tool to disengage and remove the Hoop Shim and Ambiblade at the middle pedicle. Then disengage and remove the Hoop Shims from the right and left Blades.

Attach the SpheRx DBR III Modular Tulips to the SpheRx DBR III Guides. Slide the SpheRx DBR III Modular Head Inserter through the Guide and thread into the Tulip (*Fig. 9*).

Attach each Tulip/Guide assembly using the recommended P-3-T verification technique. Refer to the DBR III Technique Guide for further details on proper use.

Following the recommended technique, measure and place the Rod. Lock the construct. Refer to the SpheRx DBR III Technique Guide for further details on proper use.



(*Fig. 9*)



MAS[®] TLIF MULTI-LEVEL: SPANNING TECHNIQUE

MAS[®] TLIF MULTI-LEVEL: SPANNING TECHNIQUE

STEP 1: PEDICLE TARGETING

Identify and mark the starting location at all three pedicles. Connect the incision from the superior to the inferior pedicle entry points (*Fig. 1*).

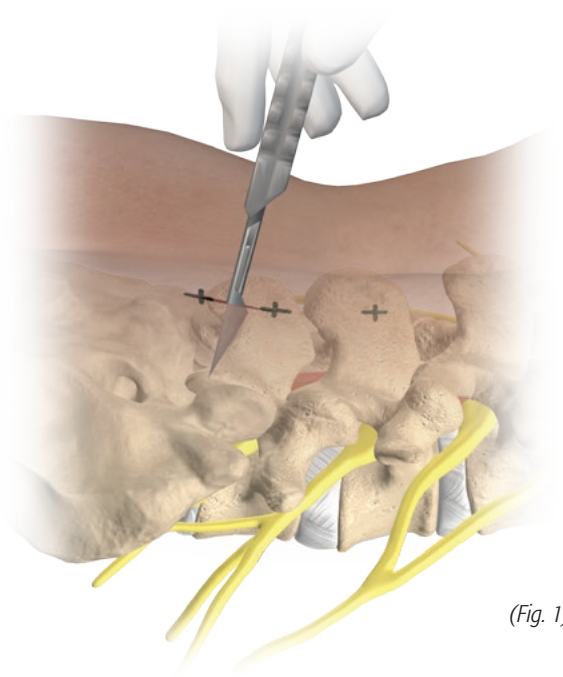
Follow the recommended technique to cannulate each pedicle, make the appropriate Blade and screw measurements and tap. Place the Screw Shank/Blade assembly at the superior and inferior pedicles, and a Screw Shank without a Blade attached at the middle pedicle (*Fig. 2*).

STEP 2: EXPOSURE

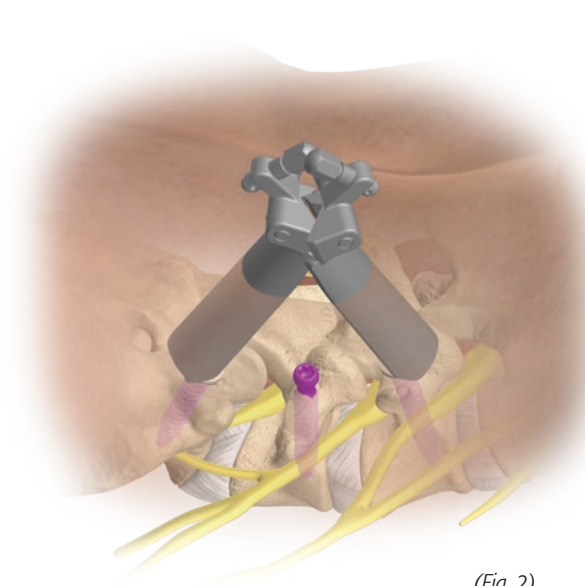
Attach the Retractor to the right and left Blades. Attach the Articulating Arm and position the Retractor over the first TLIF level (*Fig. 3*).

Follow the recommended technique to elevate tissue from the lamina, measure, place the Medial Blade at the operative level, and retract.

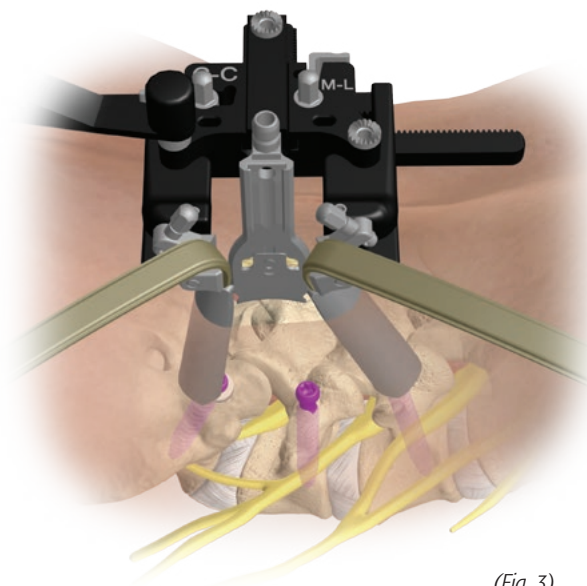
Perform a standard MAS[®] TLIF at the first level.



(*Fig. 1*)



(*Fig. 2*)



(*Fig. 3*)

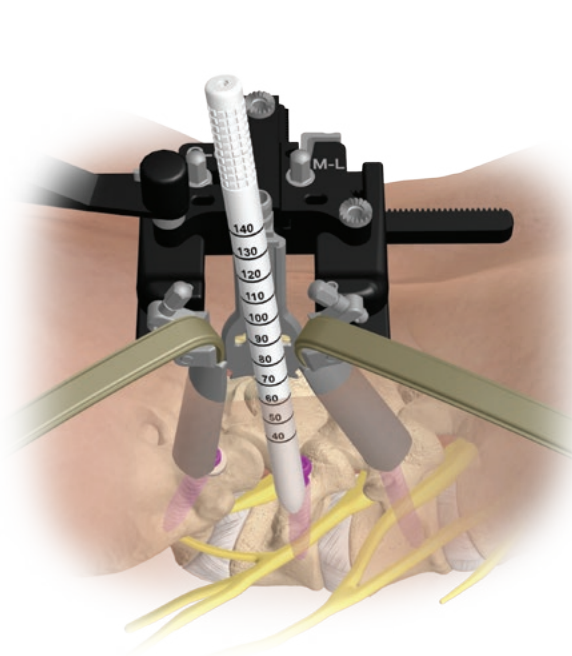
MAS[®] TLIF MULTI-LEVEL: SPANNING TECHNIQUE

STEP 2: EXPOSURE (CONT.)

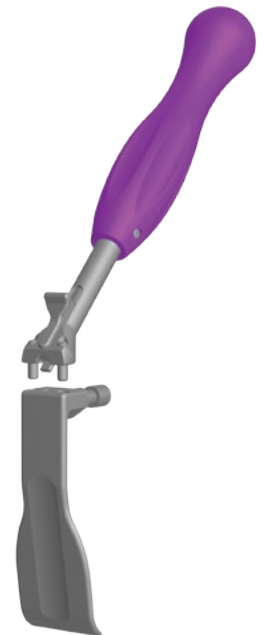
If the Lateral Blade is used to retract lateral tissue, place the 1st Dilator just lateral to the facet joint (*Fig. 4*). Select the length of the Lateral Blade, based on the measurement at the skin level. Select either a wide or narrow blade as necessary.

Attach the selected Blade to the Lateral Blade Handle (*Fig. 5*). Place the Blade into the exposure at the desired location.

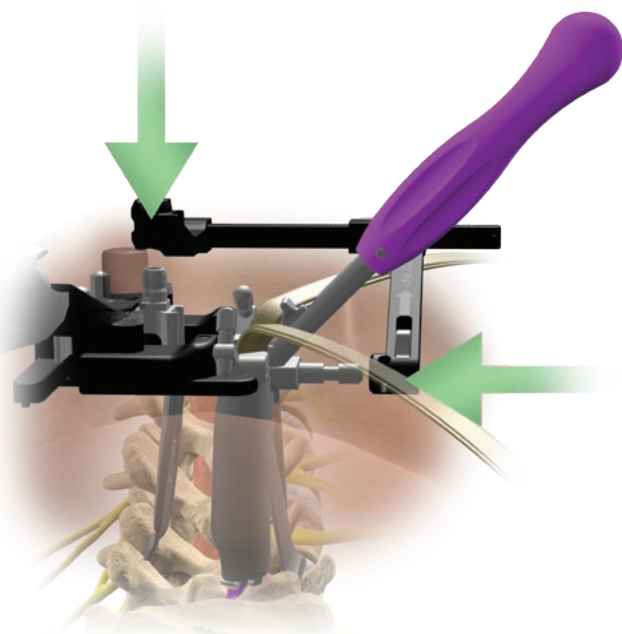
With the ratchet on the Lateral Retractor Rack in the neutral position and the Lateral Retractor Rack in the closed position, attach the Lateral Retractor Rack to the Lateral Blade and the medial post (*Fig. 6*). Engage the ratchet. Use the Retractor T-Handle to expand the Lateral Retractor Rack to obtain the final exposure (*Fig. 7*). Remove the Lateral Blade Handle.



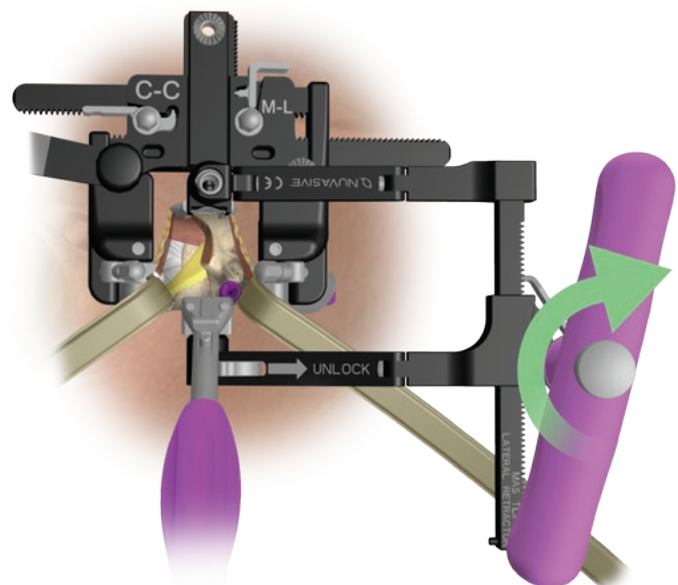
(Fig. 4)



(Fig. 5)



(Fig. 6)



(Fig. 7)

MAS[®] TLIF MULTI-LEVEL: SPANNING TECHNIQUE

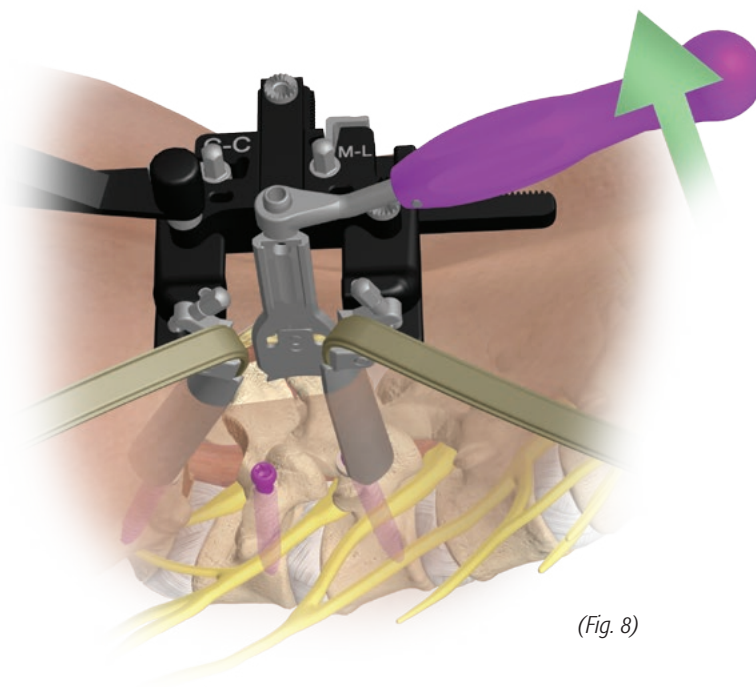
STEP 2: EXPOSURE (CONT.)

Complete the TLIF at the first level then close and remove the Lateral Retractor Body and Blade (if used). Release medial retraction, unlock the Articulating Arm, and re-position the Retractor over the second level.

Before retracting medially, elevate the tissue from the lamina of the operative level. Attach the Medial Blade Handle at a 90° angle to position the Medial Blade over the facet joint of the second level (*Fig. 8*). Retract the Medial Blade.

If necessary, the Lateral Blade may be used as previously described.

Perform a standard MAS[®] TLIF at the second level.



(*Fig. 8*)

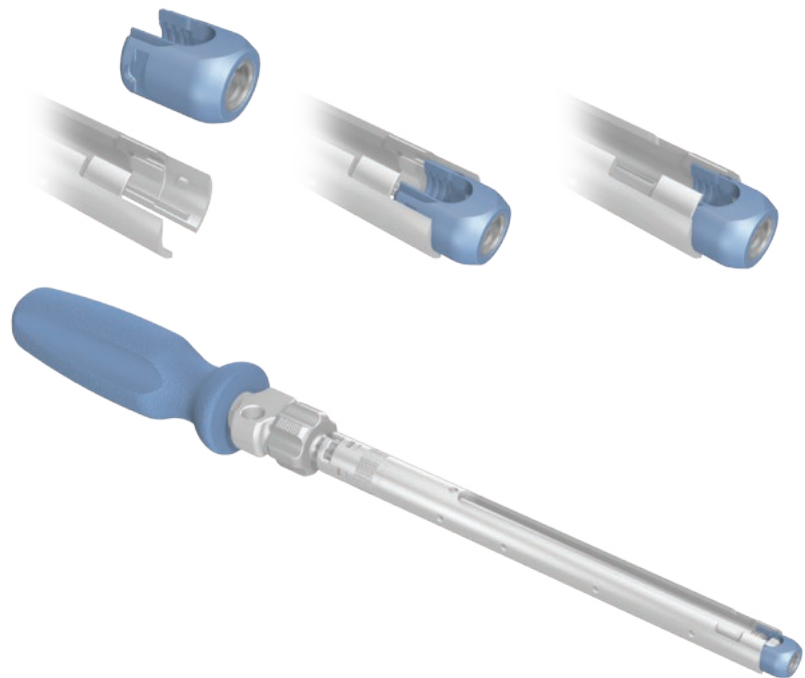
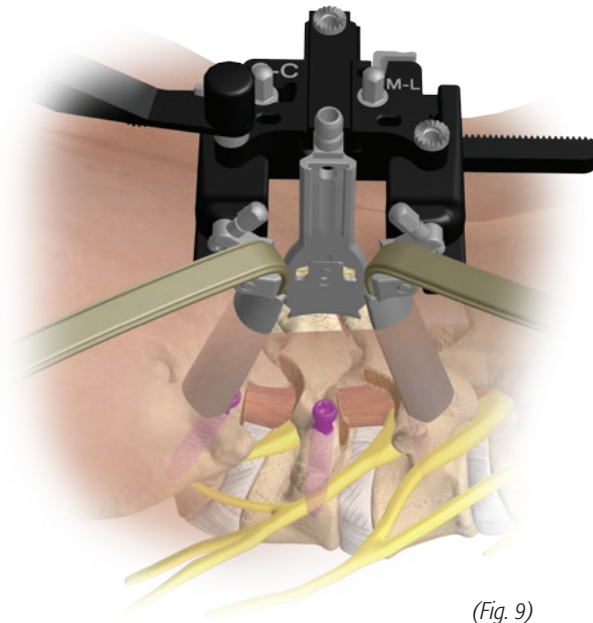
MAS[®] TLIF MULTI-LEVEL: SPANNING TECHNIQUE**STEP 3:****SPHERX[®] DBR[®] III MODULAR HEAD
ATTACHMENT AND ROD PLACEMENT**

Complete the TLIF at the second level then use the Hoop Shim Removal Tool to disengage and remove the Hoop Shims at the right and left Blades (*Fig. 9*).

Attach the SpheRx DBR III Modular Tulips to the SpheRx DBR III Guides. Slide the SpheRx DBR III Head Inserter through each Guide and thread into the Tulip (*Fig. 10*).

Attach each Tulip/Guide assembly using the recommended P-3-T verification technique. Right and left Blades may be removed as necessary to reduce exposure requirements. Refer to the SpheRx DBR III Technique Guide for further details on proper use.

Following the recommended technique, measure and place the Rod. Lock the construct. Refer to the SpheRx DBR III Technique Guide for further details on proper use.





MAS[®] TLIF: POSTEROLATERAL FUSION

MAS[®] TLIF: POSTEROLATERAL FUSION

STEP 1: POSTEROLATERAL EXPOSURE

Posterolateral fusion preparation may be achieved prior to the attachment of the Tulips to the Screw Shanks during a standard MAS[®] TLIF procedure.

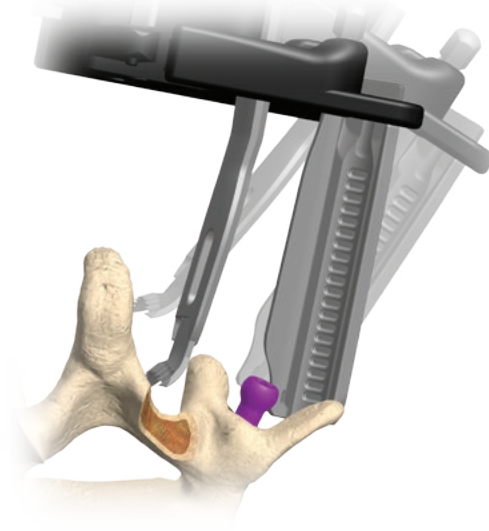
Release the Articulating Arm and tilt the Retractor to move the distal tips of the Blades laterally over the transverse processes (*Fig. 1*).

STEP 2: EXPOSURE

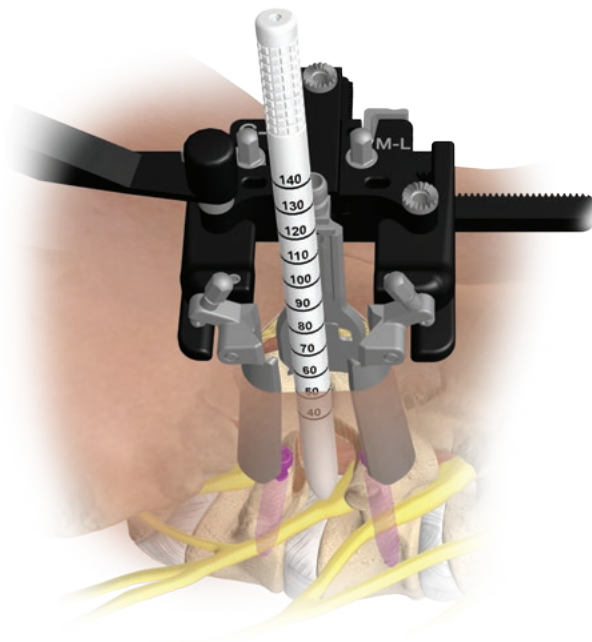
Use a Cobb to elevate the tissue from the transverse processes. Typically, approximately one-third of the transverse processes will be exposed.

Place the 1st Dilator through the exposure onto the transverse processes (*Fig. 2*), and select the length of the Lateral Blade based on the measurement at skin level. Select either a wide or narrow blade as necessary.

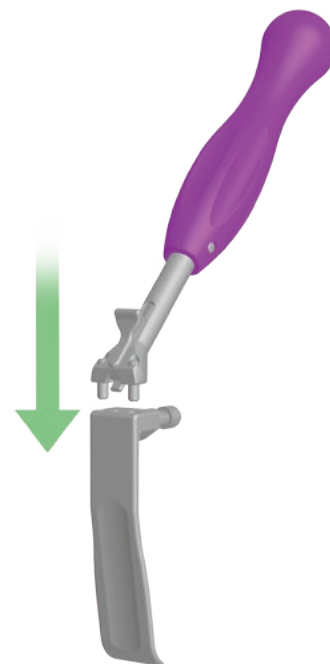
Attach selected Blade to the Lateral Blade Handle (*Fig. 3*). Place the Blade into the exposure at the desired location.



(*Fig. 1*)



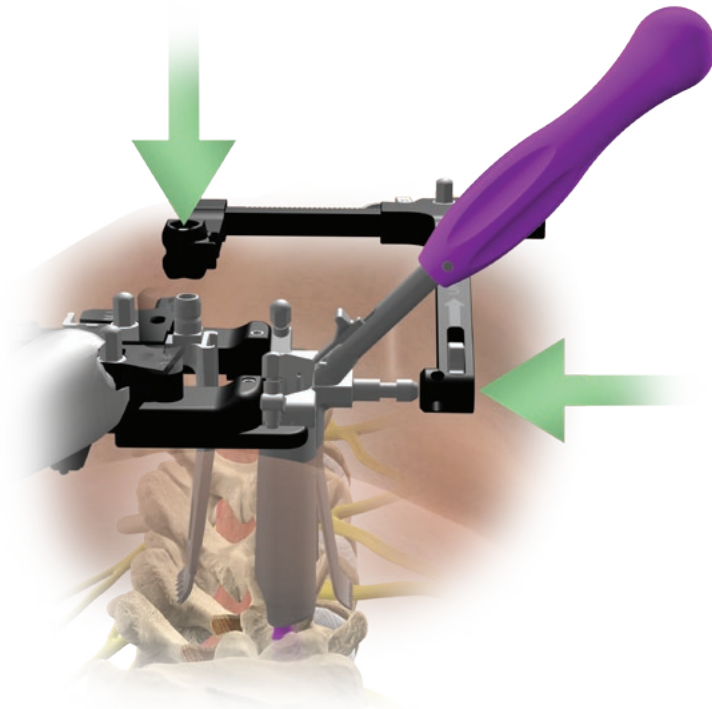
(*Fig. 2*)



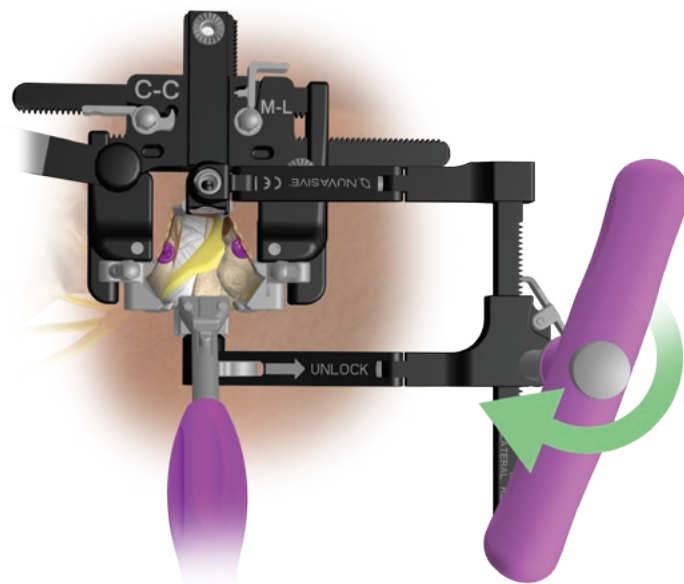
(*Fig. 3*)

MAS[®] TLIF: POSTEROLATERAL FUSION**STEP 2:
EXPOSURE (CONT.)**

With the ratchet on the Lateral Retractor Rack in the neutral position and the Lateral Retractor Rack in the closed position, attach the Lateral Retractor Rack to the Lateral Blade and medial post (Fig. 4). Engage the ratchet. Use the Retractor T-Handle to expand the Lateral Retractor Rack to obtain the final exposure (Fig. 5). Remove the Lateral Blade Handle.



(Fig. 4)



(Fig. 5)

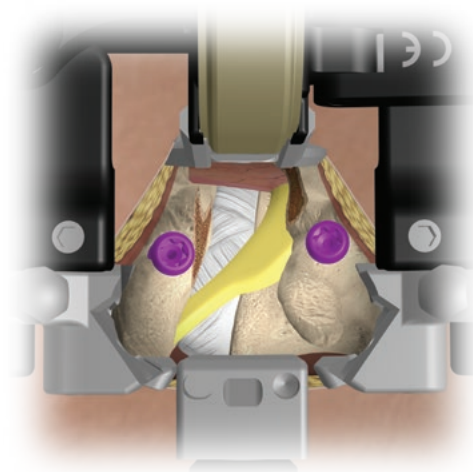
MAS[®] TLIF: POSTEROLATERAL FUSION

STEP 3: POSTEROLATERAL FUSION

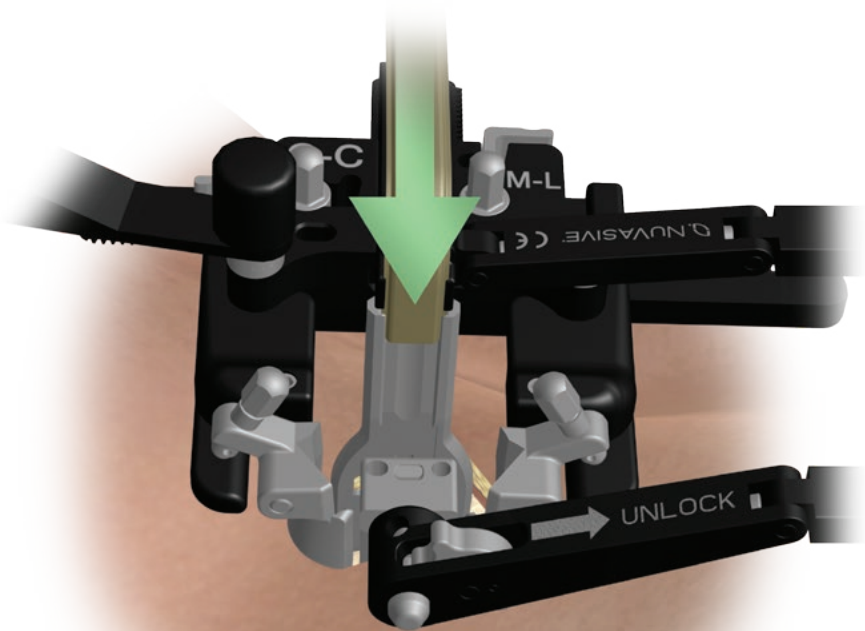
Once the desired exposure has been achieved (*Fig. 6*), remove the Lateral Blade Handle.

Decorticate the transverse processes, and place graft material at the posterolateral fusion site.

For optimal illumination, place one of the Light Cables in the Light Cable track on the medial connector of the Lateral Retractor Rack (*Fig. 7*).



(Fig. 6)



(Fig. 7)

MAS[®] TLIF: POSTEROLATERAL FUSION**STEP 4:****SPHERX[®] DBR[®] III MODULAR HEAD
ATTACHMENT AND ROD PLACEMENT**

Following the posterolateral fusion grafting, release the lateral retraction and remove the Lateral Retractor Body/ Lateral Blade assembly.

Attach the SpheRx DBR III Modular Tulips. Following the recommended P-3-T verification technique, measure and place the Rod. Lock the construct.



MAS[®] TLIF SYSTEM

MAS[®] TLIF SYSTEM

MAS[®] TLIF ACCESS INSTRUMENTS

MAXCESS[®] MAS TLIF INSTRUMENTS TRAY



BLADES: RIGHT, CENTER, LEFT



MAS TLIF RETRACTOR BODY (WITH BLADES ATTACHED)



MEDIAL BLADE HANDLE



RETRACTOR COUNTER-TORQUE



MAS® TLIF SYSTEM

MAS® TLIF ACCESS INSTRUMENTS

RETRACTOR T-HANDLE



SHIM ADJUSTER



HOOP SHIM REMOVAL TOOL



SET SCREW DRIVER



MAS[®] TLIF SYSTEM

MAS[®] TLIF ACCESS INSTRUMENTS

DILATOR HOLDER



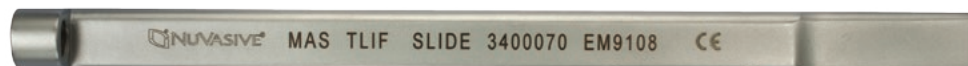
FUNNEL



GRAFT PUSHER



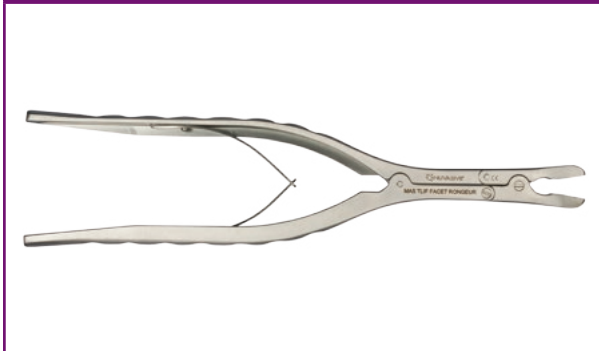
SLIDE



MAS® TLIF SYSTEM

MAS® TLIF ACCESS INSTRUMENTS

FACET RONGEUR



MAXCESS® HOOP SHIM REATTACHMENT DILATOR



SCREW LOCATOR, CANNULATED



SCREW LOCATOR, NON-CANNULATED



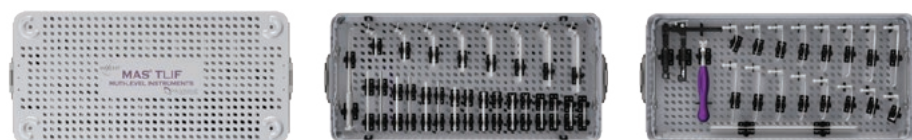
MAS TLIF HOOP SHIM REATTACHMENT



MAS[®] TLIF SYSTEM

MAS[®] TLIF MULTI-LEVEL INSTRUMENTS

MAXCESS[®] MAS TLIF MULTI-LEVEL INSTRUMENTS TRAY



AMBIBLADE SET



LATERAL BLADE RETRACTOR RACK



LATERAL BLADE - NARROW



LATERAL BLADE - STANDARD WIDTH



LATERAL BLADE HANDLE



AMBIBLADE SHIM HOOK



MAS® TLIF SYSTEM

MAS® TLIF MULTI-LEVEL INSTRUMENTS

MALLEABLE BLADE - NARROW

MAS TLIF MALLEABLE BLADE
Q. NUVASIVE® CE

MALLEABLE BLADE - WIDE

MAS TLIF MALLEABLE BLADE
Q. NUVASIVE® CE

MAS TLIF SYSTEM DISPOSABLES

HOOP SHIMS (STERILE, DISPOSABLE, PAIR)



SELF-RETAINING LIGHT CABLE (STERILE, DISPOSABLE)



BAYONETTED ANNULOTOMY KNIFE (NON-STERILE, DISPOSABLE)



MAS[®] TLIF SYSTEM

SPHERX[®] DBR[®] III MODULAR IMPLANTS/INSTRUMENTS

SPHERX DBR III MODULAR IMPLANTS/INSTRUMENTS TRAY



CATALOG

MAS® TLIF ACCESS SYSTEM

DESCRIPTION	CATALOG #
BLADES – RIGHT	
MAS TLIF Blade – Right, 40mm	3401040
MAS TLIF Blade – Right, 50mm	3401050
MAS TLIF Blade – Right, 60mm	3401060
MAS TLIF Blade – Right, 70mm	3401070
MAS TLIF Blade – Right, 80mm	3401080
MAS TLIF Blade – Right, 90mm	3401090
MAS TLIF Blade – Right, 100mm	3401100
MAS TLIF Blade – Right, 110mm	3401110
BLADES – CENTER	
MAS TLIF Blade – Center, 50mm	3402050
MAS TLIF Blade – Center, 60mm	3402060
MAS TLIF Blade – Center, 70mm	3402070
MAS TLIF Blade – Center, 80mm	3402080
MAS TLIF Blade – Center, 90mm	3402090
MAS TLIF Blade – Center, 100mm	3402100
MAS TLIF Blade – Center, 110mm	3402110
MAS TLIF Blade – Center, 120mm	3402120
BLADES – LEFT	
MAS TLIF Blade – Left, 40mm	3403040
MAS TLIF Blade – Left, 50mm	3403050
MAS TLIF Blade – Left, 60mm	3403060
MAS TLIF Blade – Left, 70mm	3403070
MAS TLIF Blade – Left, 80mm	3403080
MAS TLIF Blade – Left, 90mm	3403090
MAS TLIF Blade – Left, 100mm	3403100
MAS TLIF Blade – Left, 110mm	3403110

MAS TLIF ACCESS SYSTEM

DESCRIPTION	CATALOG #
MAS TLIF Sterilization Case – Base	3400004
MAS TLIF Sterilization Case – Lid	3400001
MAS TLIF Sterilization Case – Bottom	3400003
MAS TLIF Hoop Shim Removal Tool	3400019
MAS TLIF Hoop Shim Reattachment	3400018
MaXcess Reattachment Dilator, Hoop Shim	3400032
MAS TLIF Screw Locator, Cannulated	3400022
MAS TLIF Screw Locator, Non-Cannulated	3400023
MAS TLIF Sterilization Case – Middle	3400002
MAS TLIF Rack, Medial	3400008
MAS TLIF Retractor	3400010
MAS TLIF Retractor Counter-Torque	3400013
MAS TLIF Medial Blade Handle	3400012
MAS TLIF Retractor T-Handle	3400011
Set Screw Driver	3400028
MAS TLIF Facet Rongeur	3400065
MAS TLIF Slide	3400070
Shim Tamp/Removal Tool	3400017
MAS TLIF Sterilization Case – Top	1594481
Bone Graft Funnel Assembly	5120023
Bone Graft Pusher	5120024
Initial Dilator Holder	3230130
Light Cable Adapter, ACMI	1011810
Light Cable Adapter, Storz	1011811
Light Cable Adapter, Olympus	1011812
MAS TLIF Hoop Shim, .258 Unpackaged	3400016
Hex Key (3/32")	1011748
Self-Locking Set Screw #10 – 32 x .50	3400025
Self-Locking Set Screw #10 – 32 x .25	3400026
MAS TLIF Blade Distraction Bolts	3400027

CATALOG

MAS[®] TLIF MULTI-LEVEL INSTRUMENTS

DESCRIPTION	CATALOG #
AMBIBLADE	
MAS TLIF Ambiblade, 40mm	3407040
MAS TLIF Ambiblade, 50mm	3407050
MAS TLIF Ambiblade, 60mm	3407060
MAS TLIF Ambiblade, 70mm	3407070
MAS TLIF Ambiblade, 80mm	3407080
MAS TLIF Ambiblade, 90mm	3407090
MAS TLIF Ambiblade, 100mm	3407100
MAS TLIF Ambiblade, 110mm	3407110
AMBIBLADE SHIM, RIGHT	
MAS TLIF Ambiblade Shim - Right, 40mm	3409040
MAS TLIF Ambiblade Shim - Right, 50mm	3409050
MAS TLIF Ambiblade Shim - Right, 60mm	3409060
MAS TLIF Ambiblade Shim - Right, 70mm	3409070
MAS TLIF Ambiblade Shim - Right, 80mm	3409080
MAS TLIF Ambiblade Shim - Right, 90mm	3409090
MAS TLIF Ambiblade Shim - Right, 100mm	3409100
MAS TLIF Ambiblade Shim - Right, 110mm	3409110
AMBIBLADE SHIM, LEFT	
MAS TLIF Ambiblade Shim - Left, 40mm	3408040
MAS TLIF Ambiblade Shim - Left, 50mm	3408050
MAS TLIF Ambiblade Shim - Left, 60mm	3408060
MAS TLIF Ambiblade Shim - Left, 70mm	3408070
MAS TLIF Ambiblade Shim - Left, 80mm	3408080
MAS TLIF Ambiblade Shim - Left, 90mm	3408090
MAS TLIF Ambiblade Shim - Left, 100mm	3408100
MAS TLIF Ambiblade Shim - Left, 110mm	3408110
MAS TLIF Ambiblade Shim Hook	3400061
LATERAL BLADE, STANDARD WIDTH	
MAS TLIF Lateral Blade - Std Width, 40mm	3406040
MAS TLIF Lateral Blade - Std Width, 50mm	3406050
MAS TLIF Lateral Blade - Std Width, 60mm	3406060
MAS TLIF Lateral Blade - Std Width, 70mm	3406070
MAS TLIF Lateral Blade - Std Width, 80mm	3406080
MAS TLIF Lateral Blade - Std Width, 90mm	3406090
MAS TLIF Lateral Blade - Std Width, 100mm	3406100
MAS TLIF Lateral Blade - Std Width, 110mm	3406110

MAS TLIF MULTI-LEVEL INSTRUMENTS

DESCRIPTION	CATALOG #
LATERAL BLADE, NARROW	
MAS TLIF Lateral Blade - Narrow, 40mm	3405040
MAS TLIF Lateral Blade - Narrow, 50mm	3405050
MAS TLIF Lateral Blade - Narrow, 60mm	3405060
MAS TLIF Lateral Blade - Narrow, 70mm	3405070
MAS TLIF Lateral Blade - Narrow, 80mm	3405080
MAS TLIF Lateral Blade - Narrow, 90mm	3405090
MAS TLIF Lateral Blade - Narrow, 100mm	3405100
MAS TLIF Lateral Blade - Narrow, 110mm	3405110
MAS TLIF Lateral Blade Retractor Rack	3400057
Lateral Blade Handle	3400058
MAS TLIF Malleable Blade - Wide	3400059
MAS TLIF Malleable Blade - Narrow	3400060
MAS TLIF Multi-level Instruments Sterilization Case - Top Level	3400053
MAS TLIF Multi-level Instruments Sterilization Case - Base Level	3400054
MAS TLIF Multi-level Instruments Sterilization Case - Outer	3400055
Sterilization Case - Lid	8801300

MAS TLIF SYSTEM DISPOSABLES

DESCRIPTION	CATALOG #
MAS TLIF Hoop Shims (Sterile, Disposable, Pair)	3400020
Bayonetted Annulotomy Knife (Non-Sterile, Disposable)	3101055
Self-Retaining Light Cable (Sterile, Disposable)	3400033
MAS TLIF Kit	3400034

MAXCESS[®] ARTICULATING ARM TRAY

DESCRIPTION	CATALOG #
Articulating Arm	3220121
Rail Clamp	3230122
Articulating Arm Sterilization Case, Lid	3220031
Articulating Arm Sterilization Case, Base	3220032

CATALOG

SPHERX® DBR® III MODULAR IMPLANTS/INSTRUMENTS

DESCRIPTION	CATALOG #
SpheRx DBR III Modular Implant/Instrument Tray Base	7280103
NuVasive® Generic Lid	8801300
SPX PPS Tray Cannulated Screw Caddy	7280104
DBR® III MOD Caddy, Shank	7281119
5.5mm x 30mm Cannulated Screw Shank	7755530
5.5mm x 35mm Cannulated Screw Shank	7755535
5.5mm x 40mm Cannulated Screw Shank	7755540
5.5mm x 45mm Cannulated Screw Shank	7755545
5.5mm x 50mm Cannulated Screw Shank	7755550
5.5mm x 55mm Cannulated Screw Shank	7755555
6.5mm x 30mm Cannulated Screw Shank	7756530
6.5mm x 35mm Cannulated Screw Shank	7756535
6.5mm x 40mm Cannulated Screw Shank	7756540
6.5mm x 45mm Cannulated Screw Shank	7756545
6.5mm x 50mm Cannulated Screw Shank	7756550
6.5mm x 55mm Cannulated Screw Shank	7756555
7.5mm x 30mm Cannulated Screw Shank	7757530
7.5mm x 35mm Cannulated Screw Shank	7757535
7.5mm x 40mm Cannulated Screw Shank	7757540
7.5mm x 45mm Cannulated Screw Shank	7757545
7.5mm x 50mm Cannulated Screw Shank	7757550
7.5mm x 55mm Cannulated Screw Shank	7757555
5.5mm x 30mm Cannulated Polyaxial Screw	4485530
5.5mm x 35mm Cannulated Polyaxial Screw	4485535
5.5mm x 40mm Cannulated Polyaxial Screw	4485540
5.5mm x 45mm Cannulated Polyaxial Screw	4485545
5.5mm x 50mm Cannulated Polyaxial Screw	4485550
5.5mm x 55mm Cannulated Polyaxial Screw	4485555
6.5mm x 30mm Cannulated Polyaxial Screw	4486530
6.5mm x 35mm Cannulated Polyaxial Screw	4486535
6.5mm x 40mm Cannulated Polyaxial Screw	4486540
6.5mm x 45mm Cannulated Polyaxial Screw	4486545
6.5mm x 50mm Cannulated Polyaxial Screw	4486550
6.5mm x 55mm Cannulated Polyaxial Screw	4486555
7.5mm x 30mm Cannulated Polyaxial Screw	4487530
7.5mm x 35mm Cannulated Polyaxial Screw	4487535
7.5mm x 40mm Cannulated Polyaxial Screw	4487540
7.5mm x 45mm Cannulated Polyaxial Screw	4487545
7.5mm x 50mm Cannulated Polyaxial Screw	4487550
7.5mm x 55mm Cannulated Polyaxial Screw	4487555

SPHERX DBR III MODULAR IMPLANTS/INSTRUMENTS

DESCRIPTION	CATALOG #
Dual Ball Rod, 17.5mm	7236175
Dual Ball Rod, 20.0mm	7236200
Dual Ball Rod, 22.5mm	7236225
DB Pre-bent Rod, 25.0mm	7237250
DB Pre-bent Rod, 27.5mm	7237275
DB Pre-bent Rod, 30.0mm	7237300
DB Pre-bent Rod, 32.5mm	7237325
DB Pre-bent Rod, 35.0mm	7237350
DB Pre-bent Rod, 37.5mm	7237375
DB Pre-bent Rod, 40.0mm	7237400
DB Pre-bent Rod, 42.5mm	7237425
DB Pre-bent Rod, 45.0mm	7237450
DB Pre-bent Rod, 47.5mm	7237475
DB Pre-bent Rod, 50.0mm	7237500
DB Pre-bent Rod, 52.5mm	7237525
DB Pre-bent Rod, 55.0mm	7237550
DB Pre-bent Rod, 57.5mm	7237575
DB Pre-bent Rod, 60.0mm	7237600
DB Pre-bent Rod, 62.5mm	7237625
DB Pre-bent Rod, 65.0mm	7237650
DB Pre-bent Rod, 67.5mm	7237675
DB Pre-bent Rod, 70.0mm	7237700
Dual Ball Rod, 72.5mm	7237725
Dual Ball Rod, 75mm	7237750
Dual Ball Rod, 77.5mm	7237775
Dual Ball Rod, 80mm	7237800
20mm Pre-bent Rod	7217020
25mm Pre-bent Rod	7217025
30mm Pre-bent Rod	7217030
35mm Pre-bent Rod	7217035
40mm Pre-bent Rod	7217040
45mm Pre-bent Rod	7217045
50mm Pre-bent Rod	7217050
55mm Pre-bent Rod	7217055
60mm Pre-bent Rod	7217060
65mm Pre-bent Rod	7217065
70mm Pre-bent Rod	7217070
75mm Pre-bent Rod	7217075
150mm Pre-bent Rod	7217150

CATALOG

SPHERX[®] DBR[®] III MODULAR IMPLANTS/INSTRUMENTS

DESCRIPTION	CATALOG #
Lockscrew Caddy	7280105
Tulip Caddy	7280106
Tulip Caddy Lid	7280107
Lockscrew Caddy Lid	7280108
Top Tray Insert	7280109
Middle Level Insert	7280110
Bottom Level Insert	7280111
Compressor	7771116
6.25mm Threaded Rod Pusher	7771155
6.25mm Head Adjusters	7771160
MAS [®] TLIF 1st Dilator	3400030
Screw Adjusters	7771161
MAS TLIF Shank Driver	3400035
Reamer II	7771165
Verification Torque Handle	7771169
MAS TLIF Rod Caliper	3400042
6.25 DBRII Head Inserter	7771175
Counter torque	7771177
Lock Screw, 6.25mm Rod	7772001
PPS Tulip, 6.25mm Rod	7772002
SpheRx IFU	9003905
DBR III MOD Tag, Large	7281121
DBR III MOD Tag, Small	7281122

CATALOG

SPHERX® DBR® III INSTRUMENTS (TRAY ONE)

DESCRIPTION	CATALOG #
SpheRx DBR III Instrument Tray 1 Base	7281118
SpheRx DBR III Instrument Tray 1 Top Insert	7281116
SpheRx DBR III Instrument Tray 1 Middle Insert	7281117
NuVasive® Generic Tray Lid	8801300
DBR III Guide	7270013
Split DBR III Non-Locking Guide	7270015
DBR III Rod Pusher	7270016
DBR III Tissue Dissector	7270017
DBR III Alternate Rod Inserter	7270018
DBR III Preassembled Screwdriver	7771163
DBR III Rod Measurement Tool	7270020
DBR III Primary Insulator	7270023
DBR III Tap Insulator	7270024
DBR III Screw Insulator	7270025
DBR III K-Wire Driver	7270027
DBR III Non-Locking Guide	7270031
Ratcheting Teardrop Handle	7270032
DBR III Self-Retaining Screwdriver	7270034
DBR III Alternate Rod Delivery Guide	7270035
Curved Tissue Dissector	7270040
6.25 PPS Threaded Rod Pusher	7771155
DBR III Fork Rod Pusher	7270045
DBR III Non-Locking Alternate Rod Guide	7270046
DBR III Rod Retrieval Tool	7270048
Quick-Connect Straight Handle, Short	7270049
Sphere Gripper, 30°	7270050
Sphere Gripper, 60°	7270051
DBR III Cannulated Awl	7270057
DBR III Rod Holder	7270058
Bevel Tip K-Wire	7270100
DBR III 4.5mm Cannulated Tap	7270145
DBR III 5.5mm Cannulated Tap	7270155
DBR III 6.5mm Cannulated Tap	7270165
DBR III 7.5mm Cannulated Tap	7270175
SpheRx IFU	9003905

SPHERX DBR III INSTRUMENTS (TRAY TWO)

DESCRIPTION	CATALOG #
SpheRx DBR III Instrument Tray 2 Base	7281112
SpheRx DBR III Instrument Tray 2 Top Insert	7281111
SpheRx DBR III Instrument Tray 2 Bottom Insert	7281113
SpheRx DBR III Instrument Tray 2 Inserter Insert	7281114
NuVasive Generic Tray Lid	8801300
Torque T-handle	7240025
DBR III Counter-Torque/Reduction Sleeve	7270010
DBR III Reduction T-handle	7270011
DBR III Reducer Extension	7270014
DBR III Lock Screw Driver	7270021
Expandable Lock Screw Starter	7270080
DBR III Reattachment tool	7270029
DBR III Counter-Torque	7270044
DBR III Compressor Arm, Short	7270054
DBR III Compressor Arm, Long	7270055
DBR III Compressor Rack	7270056
DBR III Single Level Reducer	7270059
DBR III Single Level Reducer Cap	7270060
DBR III 90° 6.25 MM Rod Inserter	7270072
DBR III Inserter Driver	7270082
Constrained Rod Pusher	7270061
SpheRx IFU	9003905

CATALOG

DECOMPRESSION SYSTEM

DESCRIPTION	CATALOG #
Bipolar Forceps Cable	1010347
Kerrison, 40°, 3mm	1011400
Kerrison, 40°, 5mm	1011401
Kerrison, 90°, 3mm	1011402
Kerrison, 90°, 5mm	1011403
Curved Kerrison, 40°, 2mm	1011404
Curved Kerrison, 40°, 4mm	1011405
Curette, Straight, Small	1011406
Curette, Straight, Large	1011407
Curette, Up, Small	1011408
Woodson	1011409
Ball Tip Probe	1011410
Penfield, Large	1011411
Penfield, Small	1011412
Nerve Hook	1011413
Suction 10 FR, Short	1011414
Suction 8 FR, Short	1011415
Nerve Retractor, Short	1011416
Suction Nerve Retractor, Short	1011417
Pituitary, Up, 2mm	1011418
Pituitary, Straight, 2mm	1011419
Pituitary, Down, 2mm	1011420
Pituitary, Up, 4mm	1011423
Pituitary, Straight, 4mm	1011424
Scissors	1011425
Curette, Up, Large	1011427
Curette, Down, Small	1011428
Curette, Down, Large	1011429
Dissector	1011430
Bipolar Forceps, Angled, Short	1011431
Bipolar Forceps, Straight, Short	1011432
Sterilization Case Assembly MaXcess [®] Decompression	1011681
2mm Micro-Pituitary, Up	3100133
2mm Micro-Pituitary, Straight	3100134
Bayonetted Annulotomy Knife	3101055

NVM5[®] SYSTEM

DESCRIPTION	CATALOG #
NVM5 SYSTEM	
NVM5 System includes:	NVM5
Control Unit	
Patient Module	
(2) Connection Cables	
Impedance Meter	
(2) Impedance Meter Leads	
NVM5 Product Reference Manual	
NVM5 SYSTEM DISPOSABLES	
NVM5 Surface or Needle Electrode Module includes:	8020015 or 8050015
Dual EMG Electrodes	
EMG Harness Kit	
Patient Preparation Supplies	
NVM5 Probe	2012021
NVM5 Clip	2012022
NVM5 Insulated Pedicle Access System II	I-PAS II
Diamond Tip	2010024
Bevel Tip	2010026


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NOTES

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