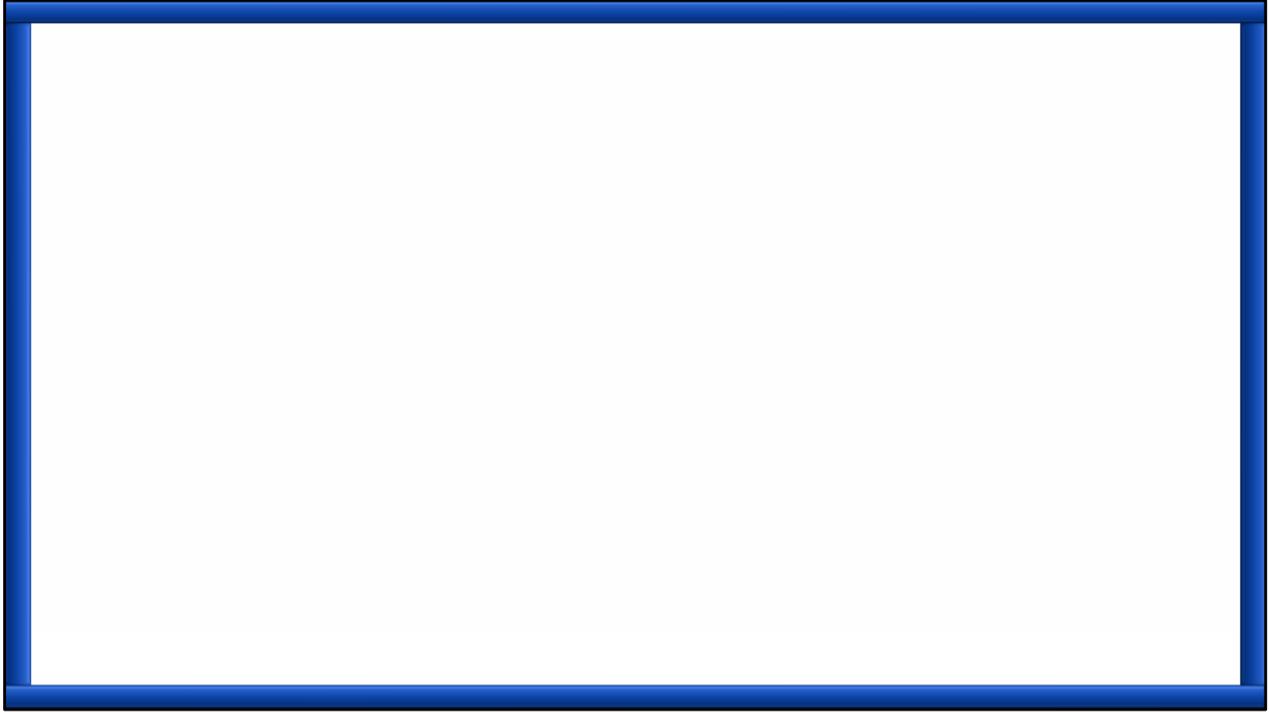


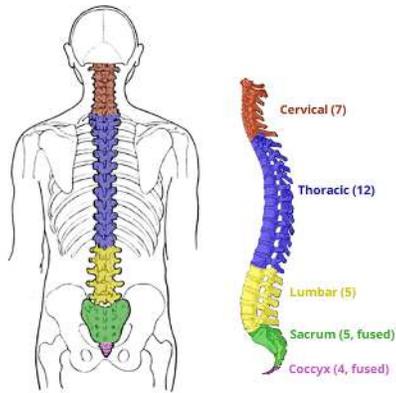
Outpatient Spinal Surgery Procedures

Lamon Willis



Spine Anatomy Video

Anatomy Involved

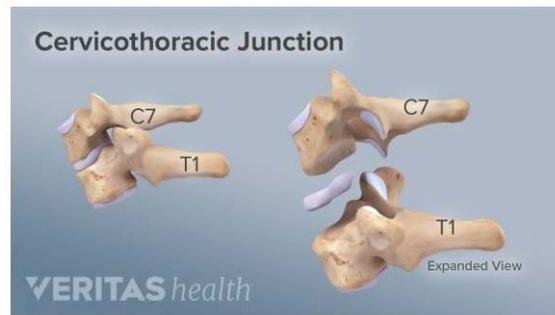


Anatomy Involved

Cervical Spine



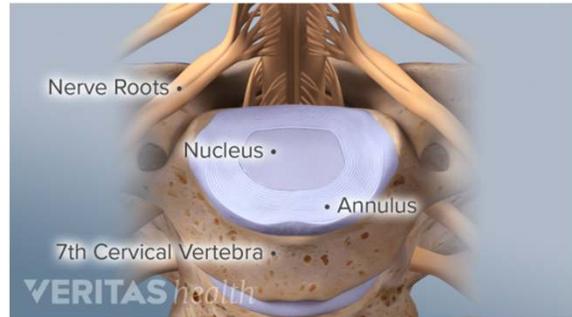
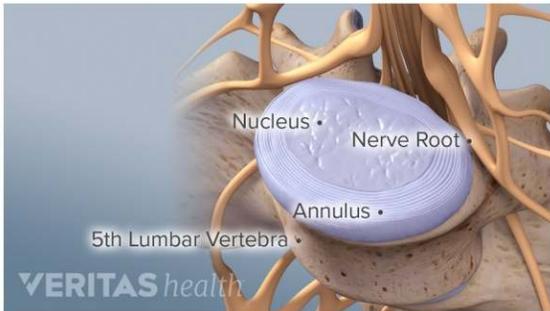
Cervicothoracic Junction



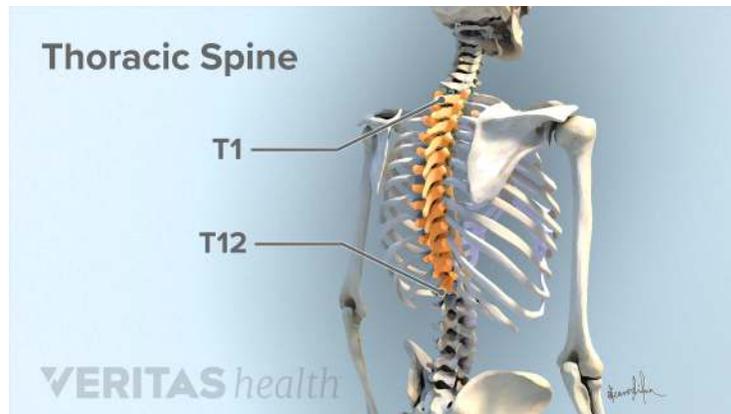
Anatomy Involved



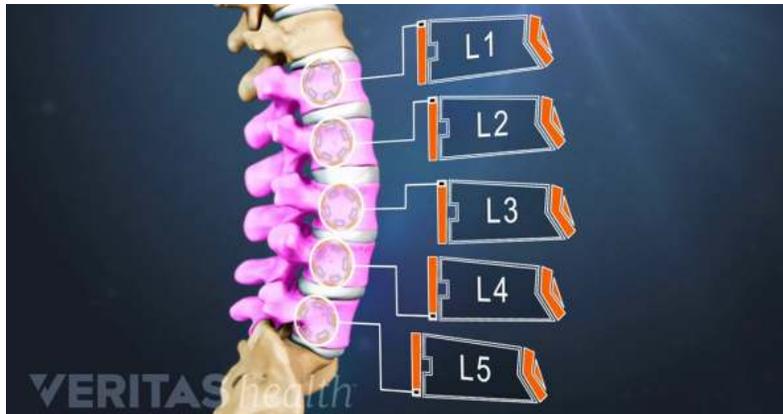
Anatomy Involved



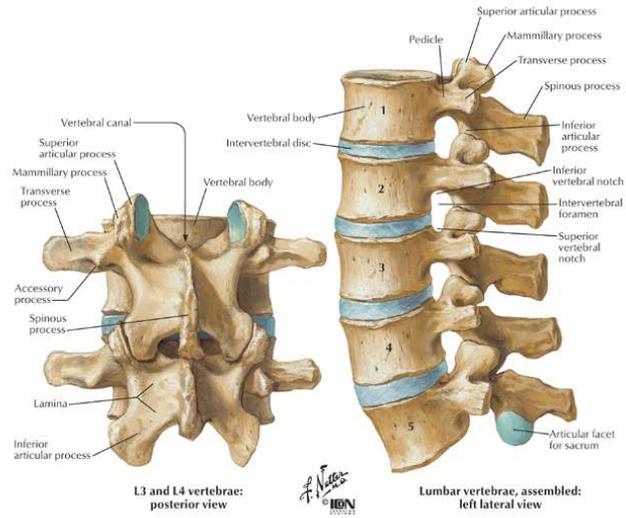
Anatomy Involved



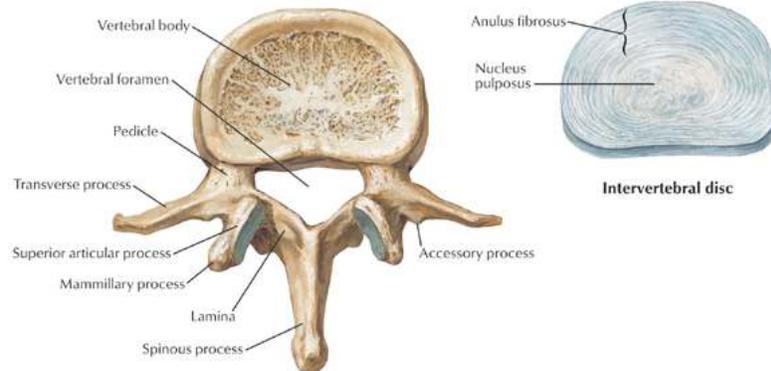
Anatomy Involved



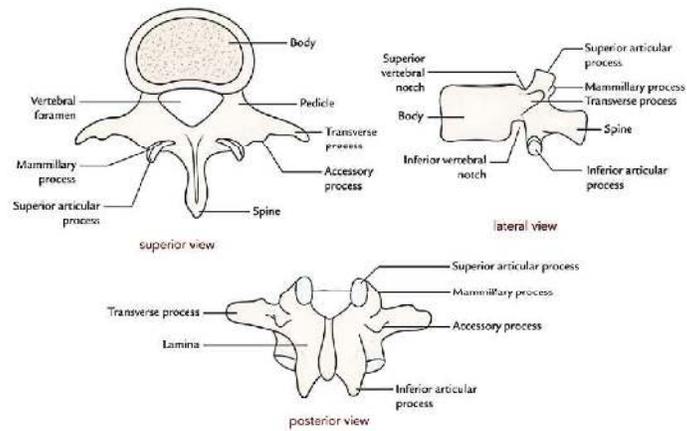
Anatomy Involved



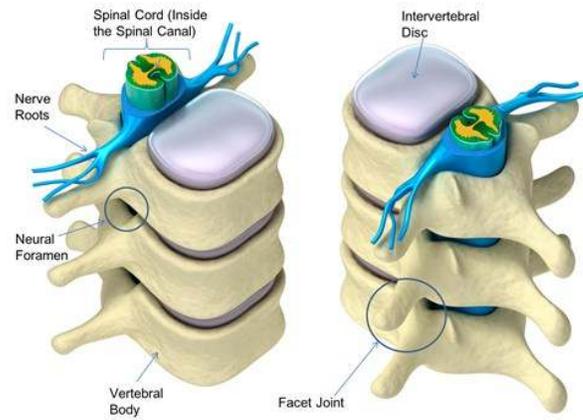
Anatomy Involved



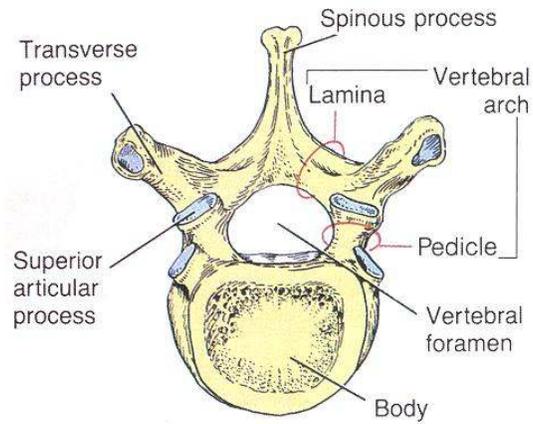
Anatomy Involved



Anatomy Involved



Anatomy Involved



Common Disorders of Spine



- Back and Neck Pain
- Herniated Discs, Lumbar & Cervical
- Degenerative Disc Disease
- Pinched Nerve
- Spinal Stenosis
- Scoliosis
- Spondylolisthesis
- Spinal Fractures
- Spinal Cord Injuries

A **herniated disc** is a cause of back and leg pain. Tom Merton / Getty Images. Many patients with back pain, leg pain, or weakness of the lower extremity muscles are diagnosed with a **herniated disc**. When a **disc herniation** occurs, the cushion that sits between the spinal vertebra is pushed outside its normal position.

Degenerative disk disease is when normal changes that take place in the disks of your spine cause pain. Spinal disks are like shock absorbers between the vertebrae, or bones, of your spine. They help your back stay flexible, so you can bend and twist. As you get older, they can show signs of wear and tear.

A **pinched nerve** can occur at a number of sites in your body. A herniated disk in your lower spine, for example, may put pressure on a **nerve** root, causing pain that radiates down the back of your leg. Likewise, a **pinched nerve** in your wrist can lead to pain and numbness in your hand and fingers (carpal tunnel syndrome).

Spinal stenosis (or narrowing) is a common condition that occurs when the small **spinal** canal, which contains the nerve roots and **spinal** cord, becomes compressed. This causes a “pinching” of the **spinal cord** and/or nerve roots, which leads to pain, cramping, weakness or numbness.

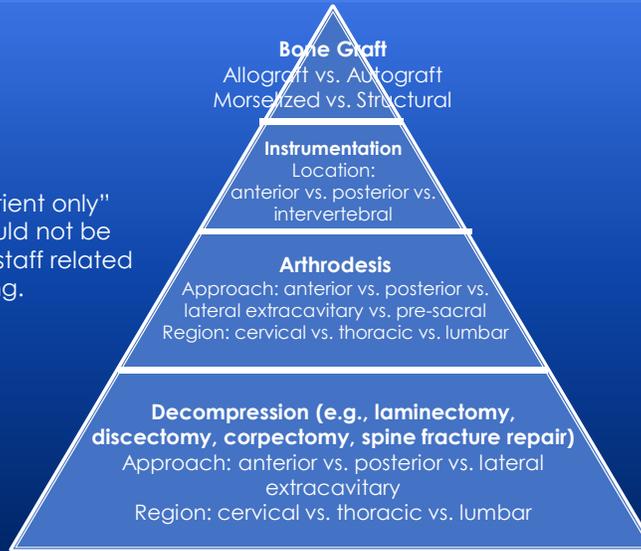
Scoliosis is a sideways curvature of the spine that occurs most often during the growth spurt just before puberty. While scoliosis can be caused by conditions such as cerebral palsy and muscular dystrophy, the cause of most **scoliosis** is unknown.

Spondylolisthesis is a slipping of vertebra that occurs, in most cases, at the base of the spine. Spondylolysis, which is a defect or fracture of one or both wing-shaped parts of a vertebra, can result in vertebrae slipping backward, forward, or over a bone below.

Principles of Spine Procedure Coding



There are many "inpatient only" procedures which would not be coded by OP coding staff related to spinal surgery coding.



Five Principles for Spine Coding



1. Choose standalone codes to describe decompression/discectomy

Standalone decompression codes for spine surgery

Approach/Procedure	Cervical	Thoracic	Lumbar	Sacral
Posterior Laminectomy	63001, 63015, 63045, +63048	63003, 63016, 63046, +63048	63005, 63017, 63047, +63048	63011
Posterior Discectomy	63020, +63035, 63040, +63043	None	63030, +63035, 63042, +63044	None
Posterior Fracture Repair	22326, +22328	22327, +22328	22325, +22328	None
Corpectomy	63081, +63082	63085, +63086, 63087, +63088, 63090, +63091	63087, +63088, 63090, +63091	None

Decompression is the general term to describe removal of the spinal disk, bone, or tissue causing pressure and pain. Often, this is the only procedure performed. Examples include: laminectomy to decompress spinal canal and/or nerve roots (e.g., 63001-63017, 63045-+63048), discectomy to decompress spinal canal and/or nerve roots (e.g., 63020-+63035, 63040-+63044, 63055-+63057), corpectomy (e.g., 63081-+63091), fracture repair (e.g., 22325-+22328), etc.

CPT® designates the decompression codes as being per “vertebral segment” or per “interspace.” Decompression occurs at the interspace for discectomy codes (e.g., right L4-L5 interspace). Discectomy is a single, standalone code, such as 63030 *Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, lumbar.*

But decompression of the spinal canal can be coded per vertebral segment (63001-63017), or per level of foraminotomy (e.g., decompression of the L4 exiting nerve root via partial laminectomy at L4 and partial laminectomy at L5, with foraminotomy at L4-L5, is reported using one code: 63047 *Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [eg, spinal or lateral recess stenosis]), single vertebral segment; lumbar).*

Discern whether the approach was posterior or anterior to choose the correct code. This table illustrates commonly used, standalone decompression codes for spine surgery.

From the operative note, identify which decompression/discectomy activity the surgeon performed. Then, choose an appropriate standalone code and any associated add-on codes (noted by the “+” sign in CPT®) for the decompression. Remember, corpectomy (removal of part or all of a vertebral body) codes include the discectomy at the level above and below the corpectomy. Documentation also should reflect removal of at least 50 percent of the cervical vertebral body, or 33 percent of the thoracic and lumbar vertebral bodies, to use the corpectomy codes.

Example 1

A 68-year-old male who has lumbar spinal stenosis at L5-S1 undergoes partial laminectomies at L5 and S1, with medial facetectomy and foraminotomy at L5-S1. This is reported with 63047.

Example 2

A 33-year-old female herniates an intervertebral disc on the right at L4-L5 while lifting her 4-year-old child. She undergoes minimally invasive hemi-laminotomies and foraminotomy with discectomy at L4-L5 on the right side. This is reported with 63030.

Five Principles for Spine Coding



2. Was a fusion (arthrodesis) performed?
 - If the answer is “no,” go to principle No. 5.
 - If the answer is “yes,” choose the standalone CPT for the fusion (synonymous with “arthrodesis,” or the joining of two or more vertebrae).
 - Fusion is the merging of adjacent parts; therefore, coding a single fusion segment (22612 Arthrodesis, posterior or posterolateral technique, single level; lumbar (with lateral transverse technique, when performed)) involves two adjacent vertebral segments (L4 and L5).

Be careful: There is a single combined decompression/fusion code: 22551 Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and decompression of spinal cord and/or nerve roots; cervical below C2. Do not use a separate standalone anterior cervical arthrodesis code (22554 *Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); cervical below C2*) with the separate anterior cervical discectomy/decompression code (63075 *Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, single interspace*) at the same spinal level. Use the combined decompression/arthrodesis code, 22551, instead.

Discern whether the approach was posterior or anterior to choose the correct arthrodesis code(s). The standalone code covers the first segment of fusion, and the associated add-on codes are used for additional levels of fusion. For example, a posterior fusion at L4-S1 is coded as 22612 (L4-L5) and +22614 *Arthrodesis, posterior or posterolateral technique, single level; each additional vertebral segment (List separately in addition to code for primary procedure)* (L5-S1), not 22612 (L4), +22614 (L5), and +22614 (S1). See the commonly used arthrodesis codes in spine surgery.

Five Principles for Spine Coding



Commonly-used arthrodesis/fusion codes in spine surgery

Approach	Cervical	Thoracic	Lumbar
Posterior	22600, +22614	22610, +22614	22612, +22614, 22630, +22632, 22633, +22634
Anterior	22554, +22585	22556, +22585	22558, +22585

Five Principles for Spine Coding



3. Choose the appropriate add-on bone graft code with fusion.

Commonly-used add-on bone graft codes in spine surgery

Type	Morselized	Structural
Allograft (donor bone)	+20930	+20931
Autograft (patient's bone)	+20936, +20937	+20938

Because a fusion was performed, you must include a bone graft code. As with other graft codes in CPT®, the spinal bone graft codes are reported for harvesting the bone graft. The work of placing the bone graft is included in the arthrodesis/fusion codes. All spinal bone graft codes are add-on codes. Choosing one is easy: There are only five, as shown in this table, CPT guidelines allow for reporting each bone graft code once per operative session.

From the operative note, determine whether the bone graft was an allograft or an autograft, and whether it was a morselized (bits or pieces) or structural (wedge or chunk) bone. It helps to know what the bone type documented in the operative note looks like.

Examples of +20930 *Allograft, morselized, or placement of osteopromotive material, for spine surgery only (List separately in addition to code for primary procedure)* include demineralized bone matrix (DBM or DBX) and bone morphogenic protein (BMP). Examples of +20931 *Allograft, structural, for spine surgery only (List separately in addition to code for primary procedure)* include a fibular strut graft and a machine threaded bone dowel.

Examples of +20936 *Autograft for spine surgery only (includes harvesting the graft); local (eg, ribs, spinous process, or laminar fragments) obtained from same incision (List separately in addition to code for primary procedure)* include crushed spinous process and/or lamina bone or rib harvested through the same exposure. An example of +20937 *Autograft for spine surgery only (includes harvesting the graft); morselized (through separate skin or fascial incision) (List separately in addition to code for primary procedure)* is cancellous iliac crest bone; +20938 *Autograft for spine surgery only (includes harvesting the graft); structural, bicortical or tricortical (through separate skin or fascial incision) (List separately in addition to code for primary procedure)* is bicortical or tricortical iliac crest bone.

Five Principles for Spine Coding



4. Was instrumentation used in the fusion?

- If the answer is “no,” go to principle No. 5.
- If the answer is “yes,” choose the appropriate add-on code(s) for the instrumentation, also known as hardware.
- Review the operative note to determine where the instrument was used, and whether it was non-segmental, segmental, or intervertebral.

Posterior instrumentation is categorized as non-segmental or segmental. Non-segmental instrumentation (+22840 *Posterior non-segmental instrumentation (eg, Harrington rod technique, pedicle fixation across 1 interspace, atlantoaxial transarticular screw fixation, sublaminar wiring at C1, facet screw fixation)*) (List separately in addition to code for primary procedure) is defined by CPT® as “fixation at each end of the construct and may span several vertebral segments without attachment to the intervening segments.” In plain language, this means the instrumentation has only two points of attachment on the spine: at the top and at the bottom of the construct. For example, this may be by pedicle screws and rods at L4-L5 only, or a long rod attached at T2 and extended to the second point of attachment at L5.

CPT® defines segmental instrumentation (+22842-+22844) as “fixation at each end of the construct and at least one additional interposed bony attachment,” meaning at least three points of attachment on the spine. Examples include pedicle screws and rods at L4, L5, and S1.

Choose anterior instrumentation codes (+22845-+22847) based on the number of vertebral segments the hardware (typically, a plate) spans. For example, report a

plate attached to C5, C6, and C7 (three vertebral segments) that spans two interspaces (C5-C6, C6-C7) with +22845 *Anterior instrumentation; 2 to 3 vertebral segments (List separately in addition to code for primary procedure)*.

Intervertebral instrumentation (+22851 *Application of intervertebral biomechanical device(s) (eg, synthetic cage(s), methylmethacrylate) to vertebral defect or interspace (List separately in addition to code for primary procedure)*) is any synthetic device, not considered a bone graft, which is put into the interspace or vertebral defect to promote fusion. These devices are typically made of titanium or polyether ether ketone (PEEK). Report +22851 per interspace, or per vertebral defect, not by how many devices are placed in the interspace. For example, two small PEEK devices placed at L4-L5 are reported with a single unit of +22851.

Five Principles for Spine Coding



Commonly-used, add-on instrumentation codes in spine surgery

Location	Non-segmental	Segmental
Posterior	+22840	+22842--22844
Anterior	+22845--22847	
Intervertebral	+22851	

Five Principles for Spine Coding



5. Were other procedures performed in addition to decompression?

- If the answer is “no,” your coding is complete.
- If the answer is “yes,” code for the other procedures.
 - Examples include:
 - Use of an operating microscope for microdissection (+69990 *Microsurgical techniques, requiring use of operating microscope (List separately in addition to code for primary procedure)*)

Five Principles for Spine Coding



- Bone marrow harvest in a separate surgical exposure such as from the iliac crest, for the autograft (38220 *Bone marrow; aspiration only*)
- Use of a stereotactic navigation system for pedicle screw placement (+61783 *Stereotactic computer-assisted (navigational) procedure; spinal (List separately in addition to code for primary procedure)*)

Principles of Spine Procedure Coding



- Any other procedures performed? Examples:
 - Microdissection (+69990)
 - Stereotactic navigational planning (+61783)
 - Bone marrow aspirate (38220) through a separate needle puncture site (e.g., via iliac crest for cervical procedure) or documented separate skin/fascial incision

Cervical Spinal Procedures



CERVICAL

Anterior Cervical Discectomy with Interbody Fusion (ACDF)

Procedure Description	Code	Modifier	Comments
Anterior interbody fusion, with discectomy and decompression; cervical below C2	22551		1 st interspace
cervical below C2, each additional interspace	22552		apply 59 modifier for 3+ interspace(s)
Insertion of interbody biomechanical device (e.g., cages) To intervertebral disc space in conjunction with interbody fusion	22853 22853	59	1 st interspace, if applicable (packaged) each additional interspace (packaged)
Anterior instrumentation (<i>select applicable code</i>) (<i>Do not report when anterior instrumentation is considered integral to an interbody device and for the purpose of device anchoring (e.g., screws, flanges)</i>)	22845 22846 22847		2-3 vertebral segments 4-7 vertebral segments - Inpatient only 8+ vertebral segments - Inpatient only
Application of bone graft (<i>select applicable code</i>) Allograft, morselized, or placement of osteopromotive material	20930		(packaged)
Allograft, structural	20931		
Autograft, local	20936		
Autograft, morselized	20937		
Autograft, structural	20938		

Cervical Spinal Procedures



Anterior Cervical Fusion without Decompression			
Procedure Description	Code	Modifier	Comments
Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); cervical below C2 each additional interspace	22554 22585		1 st interspace apply 59 modifier for 3+ interspace(s)
Insertion of interbody biomechanical device (e.g., cages) To intervertebral disc space in conjunction with interbody fusion	22853 22853	59	1 st interspace, if applicable (packaged) each additional interspace (packaged)
Anterior instrumentation (select applicable code) (Do not report when anterior instrumentation is considered integral to an interbody device and for the purpose of device anchoring (e.g., screws, flanges)	22845 22846 22847		2-3 vertebral segments 4-7 vertebral segments - Inpatient only 8+ vertebral segments - Inpatient only
Application of bone graft (select applicable code) Allograft, morselized, or placement of osteopromotive material Allograft, structural Autograft, local Autograft, morselized Autograft, structural	20930 20931 20936 20937 20938		(packaged)

Cervical Spinal Procedures



Cervical Arthroplasty/Cervical Disc Replacement

Procedure Description	Code	Modifier	Comments
Total disc arthroplasty (artificial disc), anterior approach, including discectomy with end plate preparation (includes osteophyctomy for nerve root or spinal cord decompression and microdissection); single interspace, cervical	22856		1 st interspace
second level, cervical	22858		2 nd interspace - packaged

Cervical Spinal Procedures



Posterior Craniocervical Fusion (Inpatient Only)			
Procedure Description	Code	Modifier	Comments
Arthrodesis, posterior technique, craniocervical (occiput-C2)	22590		Occiput - C2
Arthrodesis, posterior or posterolateral technique, single level; cervical below C2 segment	22600		1 st segment below C2
each additional vertebral segment	22614		apply 59 modifier for 3+ vertebral segment(s)
Posterior instrumentation (<i>select applicable code</i>)			
Posterior non-segmental instrumentation	22840		Inpatient
Internal spinal fixation by wiring of spinous processes	22841		Packaged
Posterior segmental instrumentation; 3-6 vertebral segments	22842		3 to 6 vertebral segments - packaged
Posterior segmental instrumentation; 7-12 vertebral segments	22843		7 to 12 vertebral segments - inpatient
Posterior segmental instrumentation; 13 or more vertebral segments	22844		13+ vertebral segments - inpatient
Application of bone graft (<i>select applicable code</i>)			
Allograft, morselized, or placement of osteopromotive material	20930		
Allograft, structural	20931		
Autograft, local	20936		
Autograft, morselized	20937		
Autograft, structural	20938		(packaged)

Cervical Spinal Procedures



Cervical Laminoplasty (Inpatient Only)

Procedure Description	Code	Modifier	Comments
<i>(select applicable code)</i>			Inpatient only
Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments;	63050		2 or more vertebral segments
with reconstruction of the posterior bony elements (including the application of bridging bone graft and non-segmental fixation devices [eg, wire, suture, mini-plates], when performed)	63051		

Example



INDICATIONS:

The patient is a white female with collapsed degenerative disk at C5-6 and C6-7 along with associated foraminal stenosis and a radiculopathy in the C6 and C7 distribution of the right arm. She failed extensive conservative treatment and elected to undergo surgical intervention. Surgery was offered consisting of an anterior cervical discectomy and fusion C5-C7. Procedure was explained in detail as well as perioperative course, risks and benefits. Risks include but are not limited to death, bleeding, infection, nerve damage, dysphagia, hoarseness and failure to relieve her symptoms. The patient understood the risks and wished to proceed.

PREOPERATIVE DIAGNOSES:

1. Degenerative spondylosis, C5-C7.
2. Degenerative cervical stenosis, C5-C7.
3. Cervical radiculopathy.

POSTOPERATIVE DIAGNOSES:

1. Degenerative spondylosis, C5-C7.
2. Degenerative cervical stenosis, C5-C7.
3. Cervical radiculopathy.

Example



ESTIMATED BLOOD LOSS:
Minimal.

COMPLICATIONS:
None.

DRAINS:
One Hemovac.

CONDITION:
Stable, transferred to recovery room.

Example



DETAILS OF PROCEDURE:

After consent was obtained, the patient was taken to the OR where she was successfully induced and intubated by anesthesia. She was placed supine on the table. Interscapular roll was placed. The neck placed in neutral slight extension and head supported with a jelly roll. Incision was localized with lateral fluoroscopic imaging. The neck was prepped and draped in a sterile manner. Left anterior incision was made over the C6 vertebral body, between the midline and sternocleidomastoid. It was carried down through the skin and subcutaneous tissue to the platysma. The platysma was divided transversely in line with the incision. A combination of blunt and sharp dissection was used to develop the plane between the sternocleidomastoid and strap muscles between the carotid sheath and tracheoesophageal structures. Anterior aspect of the spine was then clearly identified by the longus colli and disk spaces. Proper level was confirmed with fluoroscopy. Once confirmed, the longus colli was elevated bilaterally with electrocautery. Once the longus colli was elevated, Shadow-Line retractor system was placed deep to the longus colli. A 12mm Caspar pins were placed. Drill holes made with a small matchstick bur at C5 and C7 and the Caspar retractor applied. Discectomy was performed with 15 blade knife and disk removed with pituitary rongeurs, box and angled curettes back to the PLL. A high-speed bur was also used to widen the disk space and further prepare the endplates. Under microscopic visualization, the PLL was taken down with a small arachnoid knife and excised with Kerrison rongeurs. The decompression was used to remove posterior osteophyte and to remove posterior portion of the uncinat process bilaterally until I could easily pass a nerve hook out each foramen. Once I was satisfied with the decompression and drill holes made in the center of each endplate, sizing rasps were used to further prepare the endplates and determine appropriate size spacer, which was then selected, packed with morcellized local autograft and allograft (DBX and demineralized bone matrix into the spacer). Each space was gently tamped in the slightly recessed position at C5-C6 and C6-C7. Anterior osteophytes were then removed and a 2 level choice and vascular plate selected, contoured into lordosis, and secured with fixed screw technique on 5-7. The locking mechanism was engaged. AP and lateral images confirmed good position of the implants. The wound was irrigated copiously. Meticulous search for bleeding was performed. The wound was completely dry at the time of closure. I used a combination of bipolar electrocautery and FloSeal throughout the case to maintain hemostasis. A 1/8-inch Hemovac drain was brought out deep to the platysma inferior and lateral to the wound. Platysma closed with running 2-0 Vicryl suture, subcutaneous tissue with 3-0 Vicryl, and skin with a running 4-0 Monocryl subcuticular stitch. Skin and subcutaneous tissue infiltrated with 0.25% Marcaine, sealed with Dermabond. Sterile dressing was applied. The patient was placed in a soft collar, extubated, and taken to recovery room in stable condition. She tolerated the procedure well.

Example



DETAILS OF PROCEDURE:

After consent was obtained, the patient was taken to the OR where she was successfully induced and intubated by anesthesia. She was placed supine on the table. Interscapular roll was placed. The neck placed in neutral slight extension and head supported with a jelly roll. Incision was localized with lateral fluoroscopic imaging. The neck was prepped and draped in a sterile manner. Left anterior incision was made over the C6 vertebral body, between the midline and sternocleidomastoid. It was carried down through the skin and subcutaneous tissue to the platysma. The platysma was divided transversely in line with the incision. A combination of blunt and sharp dissection was used to develop the plane between the sternocleidomastoid and strap muscles between the carotid sheath and tracheoesophageal structures. Anterior aspect of the spine was then clearly identified by the longus colli and disk spaces. Proper level was confirmed with fluoroscopy. Once confirmed, the longus colli was elevated bilaterally with electrocautery. Once the longus colli was elevated, Shadow-Line retractor system was placed deep to the longus colli. A 12mm Caspar pins were placed. Drill holes made with a small matchstick bur at C5 and C7 and the Caspar retractor applied. Discectomy was performed with 15 blade knife and disk removed with pituitary rongeurs, box and angled curettes back to the PLL. A high-speed bur was also used to widen the disk space and further prepare the endplates. Under microscopic visualization, the PLL was taken down with a small arachnoid knife and excised with Kerrison rongeurs. The decompression was used to remove posterior osteophyte and to remove posterior portion of the unciniate process bilaterally until I could easily pass a nerve hook out each foramen. Once I was satisfied with the decompression and drill holes made in the center of each endplate, sizing rasps were used to further prepare the endplates and determine appropriate size spacer, which was then selected, packed with morcellized local autograft and allograft (DBX and demineralized bone matrix into the spacer). Each space was gently tamped in the slightly recessed position at C5-C6 and C6-C7. Anterior osteophytes were then removed and a 2 level choice and vascular plate selected, contoured into lordosis, and secured with fixed screw technique on 5-7. The locking mechanism was engaged. AP and lateral images confirmed good position of the implants. The wound was irrigated copiously. Meticulous search for bleeding was performed. The wound was completely dry at the time of closure. I used a combination of bipolar electrocautery and FloSeal throughout the case to maintain hemostasis. A 1/8-inch Hemovac drain was brought out deep to the platysma inferior and lateral to the wound. Platysma closed with running 2-0 Vicryl suture, subcutaneous tissue with 3-0 Vicryl, and skin with a running 4-0 Monocryl subcuticular stitch. Skin and subcutaneous tissue infiltrated with 0.25% Marcaine, sealed with Dermabond. Sterile dressing was applied. The patient was placed in a soft collar, extubated, and taken to recovery room in stable condition. She tolerated the procedure well.

Example



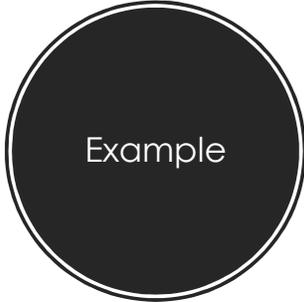
DETAILS OF PROCEDURE:

After consent was obtained, the patient was taken to the OR where she was successfully induced and intubated by anesthesia. She was placed supine on the table. Interscapular roll was placed. The neck placed in neutral slight extension and head supported with a jelly roll. Incision was localized with lateral fluoroscopic imaging. The neck was prepped and draped in a sterile manner. Left anterior incision was made over the C6 vertebral body, between the midline and sternocleidomastoid. It was carried down through the skin and subcutaneous tissue to the platysma. The platysma was divided transversely in line with the incision. A combination of blunt and sharp dissection was used to develop the plane between the sternocleidomastoid and strap muscles between the carotid sheath and tracheoesophageal structures. Anterior aspect of the spine was then clearly identified by the longus colli and disk spaces. Proper level was confirmed with fluoroscopy. Once confirmed, the longus colli was elevated bilaterally with electrocautery. Once the longus colli was elevated, Shadow-Line retractor system was placed deep to the longus colli. A 12mm Caspar pins were placed. Drill holes made with a small matchstick bur at C5 and C7 and the Caspar retractor applied. Discectomy was performed with 15 blade knife and disk removed with pituitary rongeurs, box and angled curettes back to the PLL. A high-speed bur was also used to widen the disk space and further prepare the endplates. Under microscopic visualization, the PLL was taken down with a small arachnoid knife and excised with Kerrison rongeurs. The decompression was used to remove posterior osteophyte and to remove posterior portion of the unciniate process bilaterally until I could easily pass a nerve hook out each foramen. Once I was satisfied with the decompression and drill holes made in the center of each endplate, sizing rasps were used to further prepare the endplates and determine appropriate size spacer, which was then selected, packed with morcellized local autograft and allograft (DBX and demineralized bone matrix into the spacer). Each space was gently tamped in the slightly recessed position at C5-C6 and C6-C7. Anterior osteophytes were then removed and a 2 level choice and vascular plate selected, contoured into lordosis, and secured with fixed screw technique on 5-7. The locking mechanism was engaged. AP and lateral images confirmed good position of the implants. The wound was irrigated copiously. Meticulous search for bleeding was performed. The wound was completely dry at the time of closure. I used a combination of bipolar electrocautery and FloSeal throughout the case to maintain hemostasis. A 1/8-inch Hemovac drain was brought out deep to the platysma inferior and lateral to the wound. Platysma closed with running 2-0 Vicryl suture, subcutaneous tissue with 3-0 Vicryl, and skin with a running 4-0 Monocryl subcuticular stitch. Skin and subcutaneous tissue infiltrated with 0.25% Marcaine, sealed with Dermabond. Sterile dressing was applied. The patient was placed in a soft collar, extubated, and taken to recovery room in stable condition. She tolerated the procedure well.

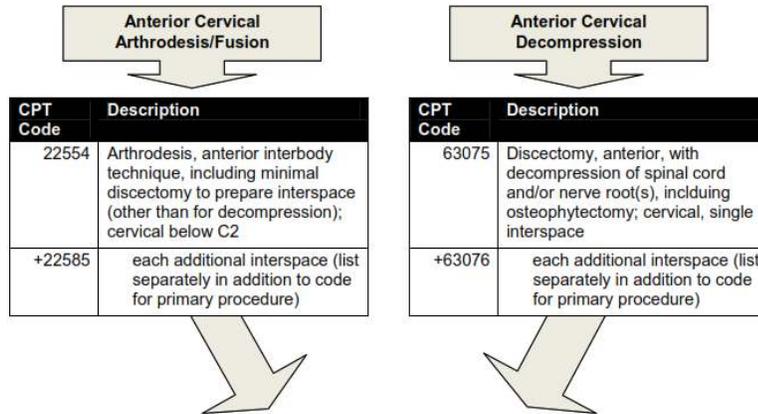
Example - Coding Results

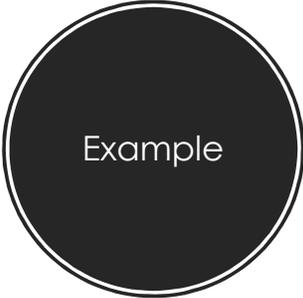


- 22551 Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophyctomy and decompression of spinal cord and/or nerve roots; cervical below C2
- 22552 Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophyctomy and decompression of spinal cord and/or nerve roots; cervical below C2, each additional interspace (List separately in addition to code for separate procedure)
- 22845 Anterior instrumentation 2-3 vertebral segments
- 22853 x 2 Insertion of interbody biomechanical device with integral anterior instrumentation for device anchoring, when performed , to intervertebral disc space; in conjunction with interbody arthrodesis, each interspace
- 20930 Allograft for spine surgery only, morselized
- 20936 Autograft spine surgery local from same incision



Anterior Cervical Decompression/Fusion





When performed together at the same level(s), report:

**Anterior Cervical
Discectomy/Decompression and Fusion**

CPT Code	Description
22551	Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophyctomy and decompression of spinal cord and/or nerve roots; cervical below C2.
+22552	cervical below C2, each additional interspace (list separately in addition to code for separate procedure)

Tips:

- Do not bill 22554 in conjunction with 63075, even if performed by a separate individual.
- Codes 22551 and 22552 include 69990 (do not separately report 69990 with 22551 or 22552). CPT 63075 also includes 69990.
- Use 22554 when performed with codes other than 63075 (e.g., 63081 – corpectomy).
- Use 63075 when performed with code other than 22554.

ACDF Cases

Anterior Cervical Discectomy/Decompression and Fusion Examples

Number of Levels	With Structural Allograft and Anterior Plate	With PEEK Device, Separate Anterior Plate, and Morselized Allograft	With Combined PEEK Device/Screws/Plate and Morselized Allograft
Three (e.g., C4-C5, C5-C6, C6-C7)	22551	22551	22551
	+22552	+22552	+22552
	+22552-59	+22552-59	+22552-59
	+22846	+22846	+22851
	+20931	+22851	+22851-59
	OR	+22851-59	+22851-59
	22551	+22851-59	+20930
	+22552 x 2 units	+20930	OR
	+22846	OR	22551
	+20931	22551	+22552 x 2 units
	+22552 x 2 units	+22851 x 3 units	
	+22846	+20930	
	+22851 x 3 units		
	+20930		

Note: May substitute/add other bone graft(s) as appropriate (e.g., +20936, +20938)

ACDF Cases

Anterior Cervical Discectomy/Decompression and Fusion Examples

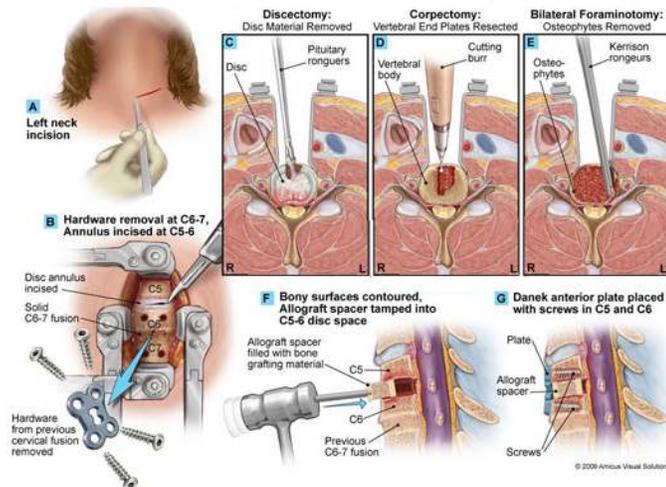
Number of Levels	With Structural Allograft and Anterior Plate	With PEEK Device, Separate Anterior Plate, and Morselized Allograft	With Combined PEEK Device/Screws/Plate and Morselized Allograft
One (e.g., C5-C6)	22551 (ACDF)	22551	22551
	+22845 (Plate)	+22845	+22851
	+20931 (Allograft)	+22851 (PEEK device)	+20930
		+20930 (Allograft)	
Two (e.g., C5-C6, C6-C7)	22551	22551	22551
	+22552 (Add. Level)	+22552	+22552
	+22845	+22845	+22851
	+20931	+22851	+22851-59
		+22851-59	+20930
		+20930	OR
		OR	22551
		22551	+22552
		+22552	+22851 x 2 units
		+22845	+20930
	+22851 x 2 units		
	+20930		

Other Example

Description:

Discectomy, corpectomy, foraminotomy, graft and hardware placed.

Cervical Spine Surgery



Lumbar Spinal Procedures



Anterior Lumbar Interbody Fusion (ALIF) (Inpatient Only)			
Procedure Description	Code	Modifier	Comments
Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar each additional interspace	22558 22585		1 st interspace - inpatient only apply 59 modifier for 3+ interspace(s)
Insertion of interbody biomechanical device (e.g., cages) to intervertebral disc space in conjunction with interbody fusion	22853 22853	59	1 st interspace, if applicable each additional interspace
Anterior instrumentation (<i>select applicable code</i>) (Do not report when anterior instrumentation is considered integral to an interbody device and for the purpose of device anchoring (e.g., screws, flanges))	22845 22846 22847		2-3 vertebral segments - packaged 4-7 vertebral segments - inpatient only 8+ vertebral segments - inpatient only
Application of bone graft (<i>select applicable code</i>) Allograft, morselized, or placement of osteopromotive material Allograft, structural Autograft, local Autograft, morselized Autograft, structural	20930 20931 20936 20937 20938		(packaged)

Lumbar Spinal Procedures



Lateral Lumbar Interbody Fusion (LLIF) (aka: DLIF, XLIF, transpoas interbody) (Inpatient Only)

Procedure Description	Code	Modifier	Comments
Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar each additional interspace	22558 22585		1 st interspace apply 59 modifier for 3+ interspace(s)
Insertion of interbody biomechanical device (e.g., cages) to intervertebral disc space in conjunction with interbody fusion	22853 22853	59	1 st interspace, if applicable each additional interspace
Anterior instrumentation (<i>select applicable code</i>) (Do not report when anterior instrumentation is considered integral to an interbody device and for the purpose of device anchoring (e.g., screws, flanges))	22845 22846 22847		2-3 vertebral segments 4-7 vertebral segments - Inpatient only 8+ vertebral segments - Inpatient only
Application of bone graft (<i>select applicable code</i>) Allograft, morselized, or placement of osteopromotive material Allograft, structural Autograft, local Autograft, morselized Autograft, structural	20930 20931 20936 20937 20938		(packaged)

Lumbar Spinal Procedures



ALIF/LLIF and Posterolateral Fusion (Inpatient Only)			
Procedure Description	Code	Modifier	Comments
Arthrodesis, posterior or posterolateral technique, single level; lumbar (with lateral transverse technique, when performed) each additional vertebral segment	22612 22614		1 st interspace apply 59 modifier for 3+ vertebral segment(s)
Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); lumbar each additional interspace	22558 22585		Inpatient Only 1 st interspace apply 59 modifier for 3+ interspace(s)
Insertion of interbody biomechanical device (e.g., cages) to intervertebral disc space in conjunction with interbody fusion	22853 22853	59	1 st interspace, if applicable each additional interspace
Posterior instrumentation (<i>select applicable code</i>) Posterior non-segmental instrumentation Internal spinal fixation by wiring of spinous processes Posterior segmental instrumentation; 3-6 vertebral segments Posterior segmental instrumentation; 7-12 vertebral segments Posterior segmental instrumentation; 13 or more vertebral segments	22840 22841 22842 22843 22844		Inpatient Packaged 3 to 6 vertebral segments - packaged 7 to 12 vertebral segments - inpatient 13+ vertebral segments - inpatient
Application of bone graft (<i>select applicable code</i>) Allograft, morselized, or placement of osteopromotive material Allograft, structural Autograft, local Autograft, morselized Autograft, structural	20930 20931 20936 20937 20938		(packaged)

Lumbar Spinal Procedures



Posterolateral Fusion (PLF) with Posterior Instrumentation (Inpatient Only)			
Procedure Description	Code	Modifier	Comments
Arthrodesis, posterior or posterolateral technique, single level; lumbar (with lateral transverse technique, when performed) each additional vertebral segment	22612 22614		1 st interspace apply 59 modifier for 3+ vertebral segment(s)
Posterior instrumentation (<i>select applicable code</i>)			
Posterior non-segmental instrumentation	22840		Inpatient Packaged
Internal spinal fixation by wiring of spinous processes	22841		
Posterior segmental instrumentation; 3-6 vertebral segments	22842		
Posterior segmental instrumentation; 7-12 vertebral segments	22843		
Posterior segmental instrumentation; 13 or more vertebral segments	22844		
Application of bone graft (<i>select applicable code</i>)			
Allograft, morselized, or placement of osteopromotive material	20930		(packaged)
Allograft, structural	20931		
Autograft, local	20936		
Autograft, morselized	20937		
Autograft, structural	20938		

Lumbar Spinal Procedures

The left part of the figure consists of a postoperative lateral plain film of one of the patients included in this study and who had received combined anterior interbody fusion and posterior percutaneous fixation.

The right part of the figure shows the surgical wound for the anterior fusion, while the lower right part of the figure shows the small stab incisions created during the posterior fixation



Lumbar Spinal Procedures

Posterior Lumbar Interbody Fusion (PLIF)/ Transforaminal Lumbar Interbody Fusion (TLIF) with Posterior Instrumentation			
Procedure Description	Code	Modifier	Comments
Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy to prepare interspace (other than for decompression), single interspace; lumbar each additional interspace	22630 22632		Inpatient Only 1 st interspace
<i>Report applicable code if decompression is performed:</i> Laminotomy (hemilaminectomy), with decompression of nerve root(s); 1 interspace, lumbar each additional interspace	63030 63035		1 st interspace apply 59 modifier for 3+ interspace(s)
Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s]), single vertebral segment; lumbar each additional segment	63047 63048		1 st vertebral segment
Insertion of interbody biomechanical device (e.g., cages) to intervertebral disc space in conjunction with interbody fusion	22853 22853		1 st interspace, if applicable each additional interspace
Posterior instrumentation (select applicable code) Posterior non-segmental instrumentation Internal spinal fixation by wiring of spinous processes Posterior segmental instrumentation; 3-6 vertebral segments Posterior segmental instrumentation; 7-12 vertebral segments Posterior segmental instrumentation; 13 or more vertebral segments	22840 22841 22842 22843 22844		Inpatient Packaged 3 to 6 vertebral segments 7 to 12 vertebral segments 13+ vertebral segments
Application of bone graft (select applicable code) Allograft, morselized, or placement of osteopromotive material Allograft, structural Autograft, local Autograft, morselized Autograft, structural	20930 20931 20936 20937 20938		(packaged)

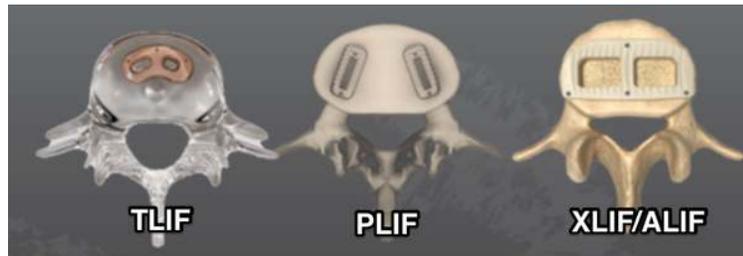


Lumbar Spinal Procedures



PLIF/TLIF with Posterolateral Fusion and Instrumentation (Inpatient Only)			
Procedure Description	Code	Modifier	Comments
Arthrodesis, combined posterior or posterolateral technique with posterior interbody technique including laminectomy and/or discectomy sufficient to prepare interspace (other than for decompression), single interspace and segment; lumbar each additional interspace and segment	22633 22634		1 st interspace and segment
<i>Report applicable code if decompression is performed:</i> Laminotomy (hemilaminectomy), with decompression of nerve root(s); 1 interspace, lumbar each additional interspace	63030 63035		1 st interspace
Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], single vertebral segment; lumbar each additional segment	63047 63048		1 st vertebral segment
Insertion of interbody biomechanical device (e.g., cages) to intervertebral disc space in conjunction with interbody fusion	22853 22853		1 st interspace, if applicable each additional interspace
Posterior instrumentation (<i>select applicable code</i>) Posterior non-segmental instrumentation Internal spinal fixation by wiring of spinous processes Posterior segmental instrumentation; 3-6 vertebral segments Posterior segmental instrumentation; 7-12 vertebral segments Posterior segmental instrumentation; 13 or more vertebral segments	22840 22841 22842 22843 22844		Inpatient Packaged 3 to 6 vertebral segments 7 to 12 vertebral segments 13+ vertebral segments
Application of bone graft (<i>select applicable code</i>) Allograft, morselized, or placement of osteopromotive material Allograft, structural Autograft, local Autograft, morselized Autograft, structural	20930 20931 20936 20937 20938		(packaged)

Lumbar
Spinal
Procedures



- Physicians have preferences as to which procedure they believe is more successful (see blog URL below):
 - <https://spinalconfusion.wordpress.com/2017/11/10/lateral-alif-is-a-true-single-position-strategy-for-lumbar-fusions/>

Lumbar Spinal Procedures



Discectomy, Lumbar

Procedure Description	Code	Modifier	Comments
Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, lumbar each additional interspace	63030 63035		1 st interspace apply 59 modifier for 3+ interspace(s)

NOTE: If procedure is performed bilaterally, report modifier 50.

Lumbar Spinal Procedures



Laminotomy/Laminectomy, Lumbar			
Procedure Description	Code	Modifier	Comments
Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; lumbar, except for spondylolisthesis more than 2 vertebral segments; lumbar	63005 63017		1 st or 2 nd vertebral segments more than 2 vertebral segments
Laminectomy with removal of abnormal facets and/or pars inter-articularis with decompression of cauda equina and nerve roots for spondylolisthesis, lumbar (Gill type procedure)	63012		Gill type procedure
Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace, lumbar each additional interspace	63030 63035		1 st interspace apply 59 modifier for 3+ interspace(s)
Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, reexploration, single interspace; lumbar each additional lumbar interspace	63042 63044		1 st interspace apply 59 modifier for 3+ interspace(s)
Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], single vertebral segment; lumbar each additional segment	63047 63048		1 st vertebral segment apply 59 modifier for 3+ vertebral segment(s)

Lumbar Spinal Procedures



Interlaminar/Interspinous Process Device Insertion			
Procedure Description	Code	Modifier	Comments
Insertion of interlaminar/interspinous process stabilization/distraction device, without fusion, including image guidance when performed, with open decompression, lumbar; single level second level	22867		1 st level
	22868		2 nd level
Insertion of interlaminar/interspinous process stabilization/distraction device, without open decompression or fusion, including image guidance when performed, lumbar; single level second level	22869		1 st level
	22870		2 nd level

Thoracic Spinal Procedures



Laminectomy, Thoracic			
Procedure Description	Code	Modifier	Comments
Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; thoracic except for spondylolisthesis more than 2 vertebral segments; thoracic	63003 63016		1 st or 2 nd vertebral segments more than 2 vertebral segments
Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], single vertebral segment; thoracic each additional segment	63046 63048	59	1 st vertebral segment apply 59 modifier for 3+ vertebral segment(s)

- **NOTE:** There is no thoracic laminotomy or laminoplasty procedures in CPT. If your documentation details a thoracic laminotomy, an unlisted code would be used.
- **NOTE:** Modifier -50 **should not** be utilized as the description states **unilateral or bilateral**.
- **NOTE:** Most other thoracic spinal procedures are **inpatient only**.

Common Diagnoses & Surgery



• Stenosis/Spondylosis

63001 – 63005

Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, *without* facetectomy, foraminotomy or discectomy, (e.g., spinal stenosis), *one or two vertebral segments*

- Cervical (63001), thoracic (63003), lumbar (63005) and sacral (63011)
- No additional level codes
- Primary diagnosis is stenosis
- May not report with modifier 50, procedure is inherently bilateral

- Example of 63001: Decompressive laminectomies at C2 and C3 for stenosis

Common Diagnoses & Surgery



• Stenosis/Spondylosis

63015 – 63017

Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, *without* facetectomy, foraminotomy or discectomy, (e.g., spinal stenosis), *more than 2 vertebral segments*

- Cervical (63015), thoracic (63016) and lumbar (63017)
- No additional level codes
- Primary diagnosis is stenosis
- May not report with modifier 50, procedure is inherently bilateral
- Example of 63015: Decompressive laminectomies at C2, C3, C4 and C5 for stenosis

Common Diagnoses & Surgery



• Stenosis/Spondylosis

63045 – +63048

NOTE: CPT Assistant, December 2012 supports the use of 63045-63048 for procedures to address stenosis and the use of 63020-63035 for procedures to treat disc disease.

Laminectomy, facetectomy and foraminotomy (unilateral or bilateral) with decompression of spinal cord, cauda equina and/or nerve root(s), (e.g., spinal or lateral recess stenosis)), single vertebral segment

- Cervical (63045), thoracic (63046) and lumbar (63047)
 - +63048 is the add-on code for this family of codes
 - May not report with modifier 50, code says "unilateral or bilateral"
 - Primary diagnosis is usually stenosis or spondylosis
 - Use for revision (re-do) laminectomy when performed due to stenosis – do not report 63042.
 - Report one code per interspace/level of foraminotomy
 - Use code for minimally invasive procedure (e.g., using tubular retractor system). Report code(s) the same as if performed via longer incision. For example, a bilateral L4-L5 procedure via two small "minimally invasive" incisions is one code, 63047, and not two codes.
- Example of 63047: L4-5 partial laminectomies, foraminotomies and partial facetectomies for stenosis

Common Diagnoses & Surgery



• Disc Disease

63020
63030
+63035

NOTE: Repair of the annulus is included in the discectomy codes and not separately reported with an unlisted code such as 22899 or 64999 (CPT

Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc; 1 interspace.

- Cervical (63020) or lumbar (63030); no thoracic code
- +63035 is the add-on code for this family of codes
- May report with modifier 50, these are unilateral codes
- Primary diagnosis is disc disease
- Use code for minimally invasive procedure (e.g., using tubular retractor system). Report code(s) the same as if performed via longer incision. For example, excision of right L4-L5 and right L5-S1 discs via two small "minimally invasive" incisions is 63030 and +63035 (not 63030 and 63030).
- Do not use this series of codes for percutaneous discectomy where procedure is performed under fluoroscopy and there is no direct visualization of the anatomy – look at 62287 instead.
- Endoscopically assisted laminotomy (hemilaminectomy) requires open and direct visualization. When visualization is only endoscopic and/or image guidance, the procedure is percutaneous and reported using 0274T, 0275T. So, be sure to document direct visualization!
- Includes annulus closure/repair using any sort of annulus closure device or soft tissue reinforcement – do not separately report 22899.
- Example of 63030: Left L4-5 hemilaminectomies, foraminotomy and discectomy for herniated disc

Common Diagnoses & Surgery



• Disc Disease

63040 – +63044

Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of herniated intervertebral disc, *reexploration*, single interspace

- These codes are used for re-exploration **discectomy** procedures performed at the exact same level(s) as the previous procedure when the surgeon is out of the global period for the first procedure
 - Cervical (63040) or lumbar (63042) no thoracic codes
 - +63043 is the add-on code for a reexploration cervical level; +63044 is the add-on code for reexploration lumbar level
 - May report with modifier 50, these are unilateral codes
 - Codes are valued higher to account for additional work involved with performing a re-exploration (e.g., excision of scar tissue, distorted landmarks)
 - Includes annulus closure/repair using any sort of annulus closure device or soft tissue reinforcement – do not separately report 22899.
- Example of 63042: Reexploration left L4-5 partial laminectomies, foraminotomy and partial facetectomy for disc disease

Other Laminectomy Codes



• Transpedicular Approach

Transpedicular approach with decompression of spinal cord, equina and/or nerve root(s) (e.g., herniated intervertebral disc), single segment; thoracic (including transfacet, or lateral extraforaminal approach) (e.g., far lateral herniated intervertebral disc)

63055

- +63057 is the add on code
- May not report bilaterally
- An approach to disc removal that typically includes removal of the pedicles and/or facet joints
- Diagnosis is typically far lateral herniated disc
- Not to be used for transforaminal lumbar interbody fusion (TLIF) approaches (22630) or percutaneous endoscopic discectomies (62287). Do not use 63055 just because you are doing a TLIF – rather consider 63046 instead.

Other Laminectomy Codes



• Transpedicular Approach

Transpedicular approach with decompression of spinal cord, equina and/or nerve root(s) (e.g., herniated intervertebral disc), single segment; lumbar (including transfacet, or lateral extraforaminal approach) (e.g., far lateral herniated intervertebral disc)

63056

- +63057 is the add on code
- May not report bilaterally
- An approach to disc removal that typically includes removal of the pedicles and/or facet joints
- Diagnosis is typically far lateral herniated disc
- Not to be used for transforaminal lumbar interbody fusion (TLIF) approaches (22630) or percutaneous endoscopic discectomies (62287). Do not use 63056 just because you are doing a TLIF – rather consider 63047 instead.
- Use 63055 for thoracic