



HEALTHCON

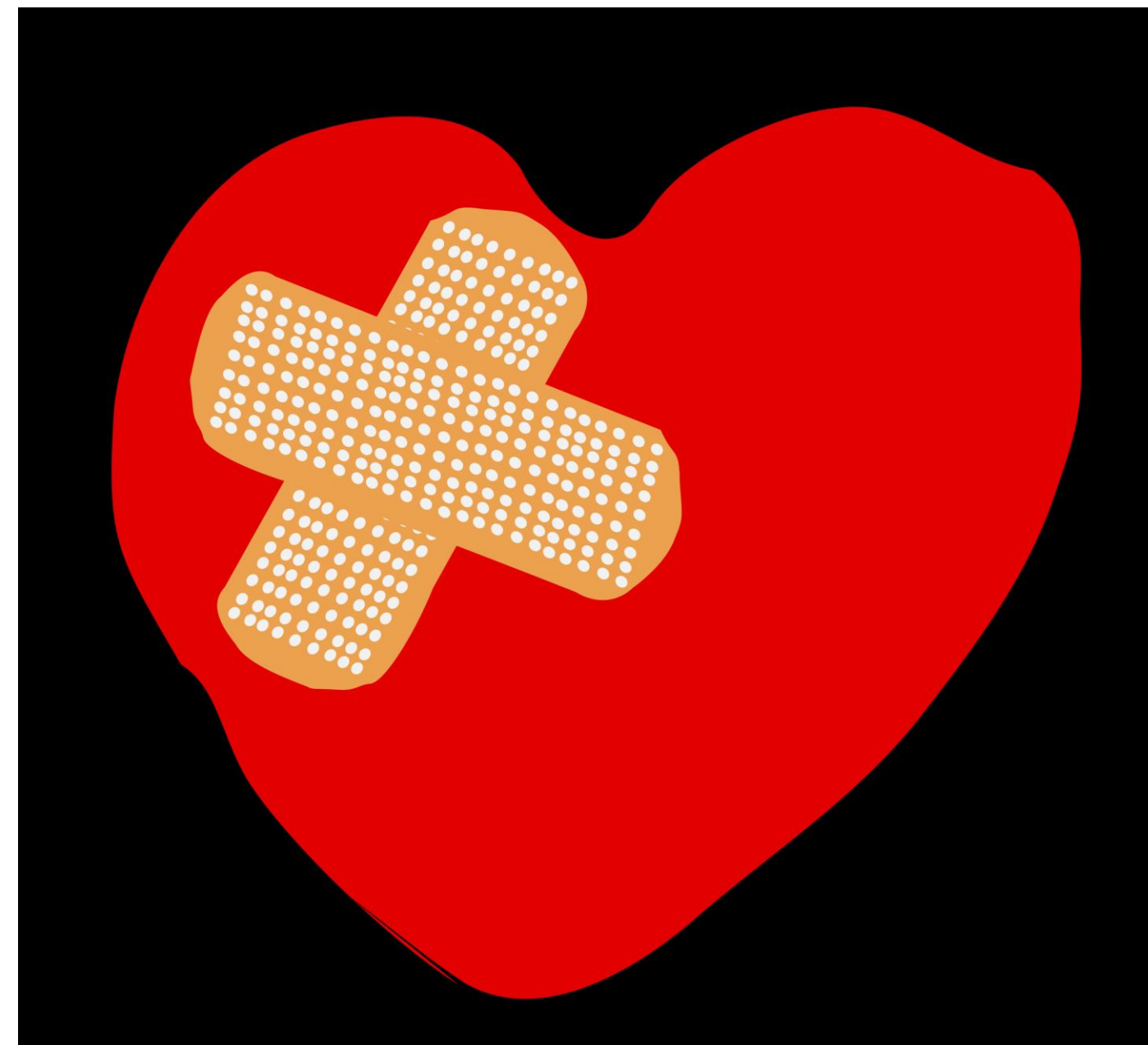


ICD-10-PCS Challenges of the 2017 Code Revisions

Presented By: Yvette DeVay, MHA, CPC, CIC

Agenda

- Challenges in ICD-10 PCS Procedure Coding
 - Cardiovascular
 - CABG, PCTA, and Aneurysms
 - Digestive
 - Musculoskeletal
 - Nervous System
 - Obstetrical Lacerations



Circulatory Procedures

PCS Guideline Revisions

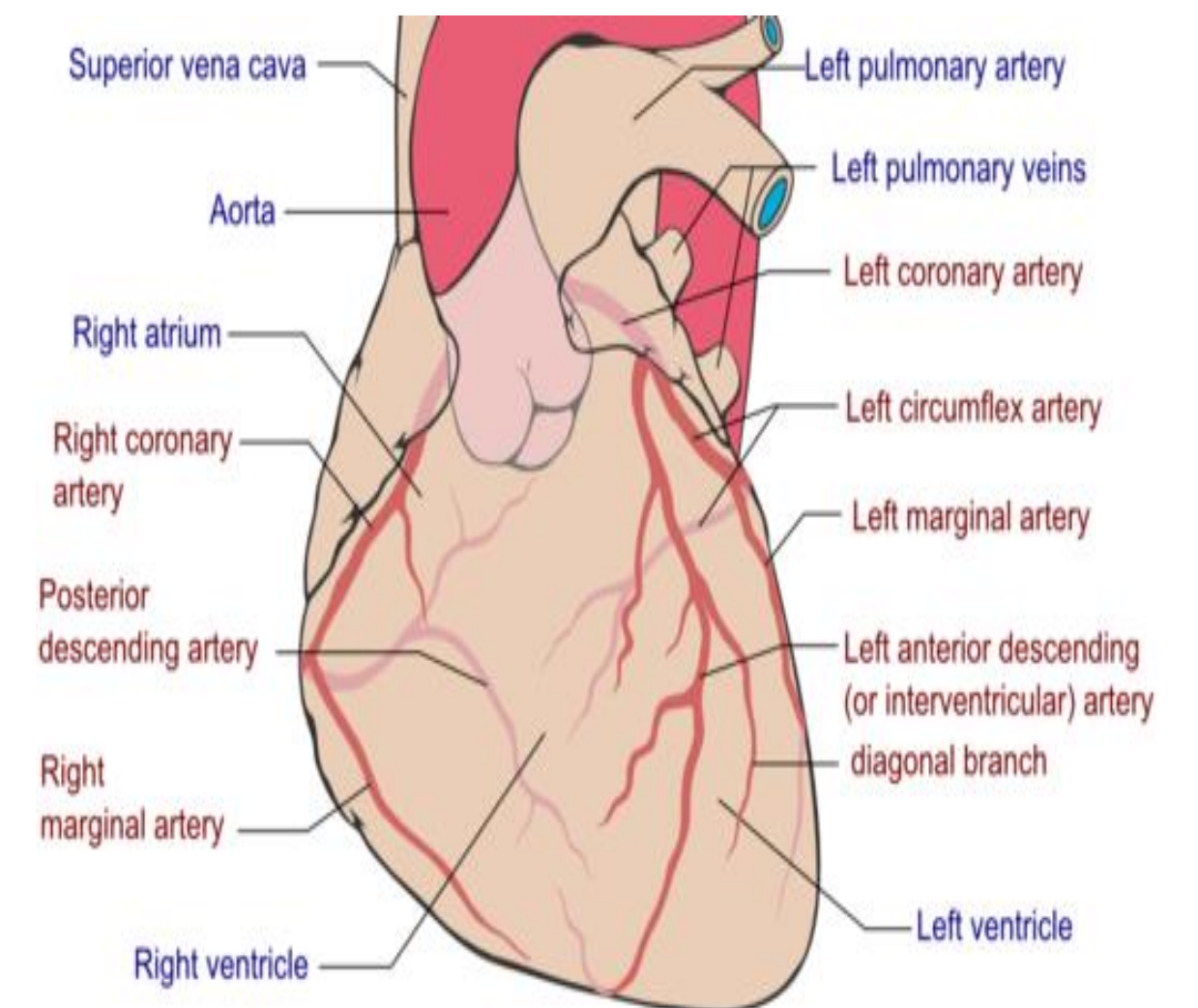
- Coronary artery bypass procedures are coded differently than other bypass procedures the body part identifies the number of coronary arteries bypassed to, and the qualifier specifies the vessel bypassed from. *<ICD-10-PCS Guideline B3.6b>*
- *Example:* Aortocoronary artery bypass of the **left anterior descending coronary artery** and the **obtuse marginal coronary artery** is classified in the body part axis of classification as two coronary arteries.
- The coronary arteries are classified as a single body part that is further specified by number of arteries treated. *<ICD-10-PCS Guideline B4.4>*

PCS Guideline Revisions

- The B3.6b Guideline change impacts the following procedure tables:
 - 021 Bypass of Heart and Great Vessels
 - 027 Dilation of Heart and Great Vessels
 - 02C Extirpation of Heart and Great Vessels
 - 02Q Repair of Heart and Great Vessels
 - 02S Reposition of Heart and Great Vessels
 - X2C Extirpation of Cardiovascular System, New Technology

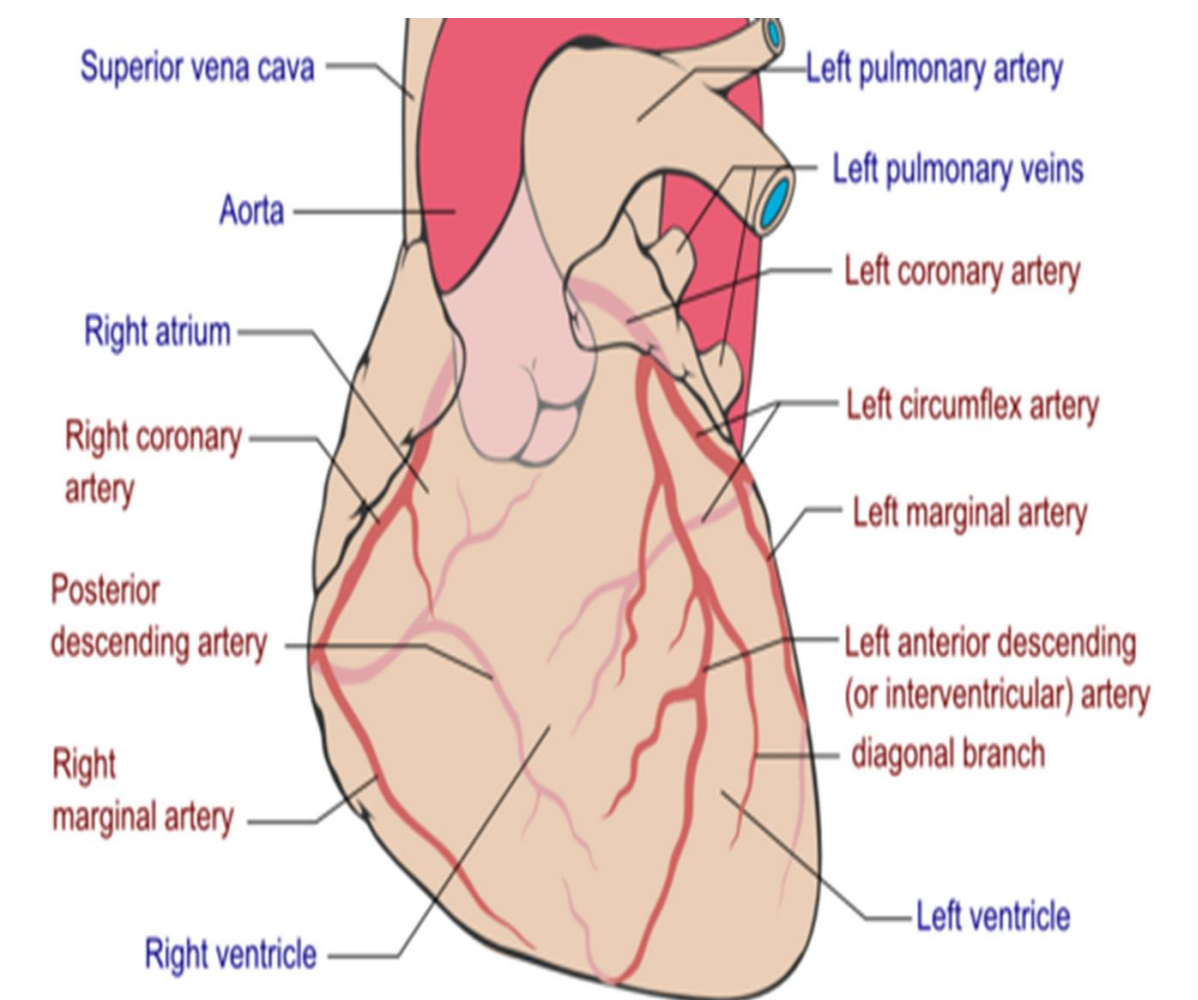
ICD-10-PCS – Coronary Artery Procedures

- Right Coronary Artery RCA
- Right marginal
- Right posterior descending

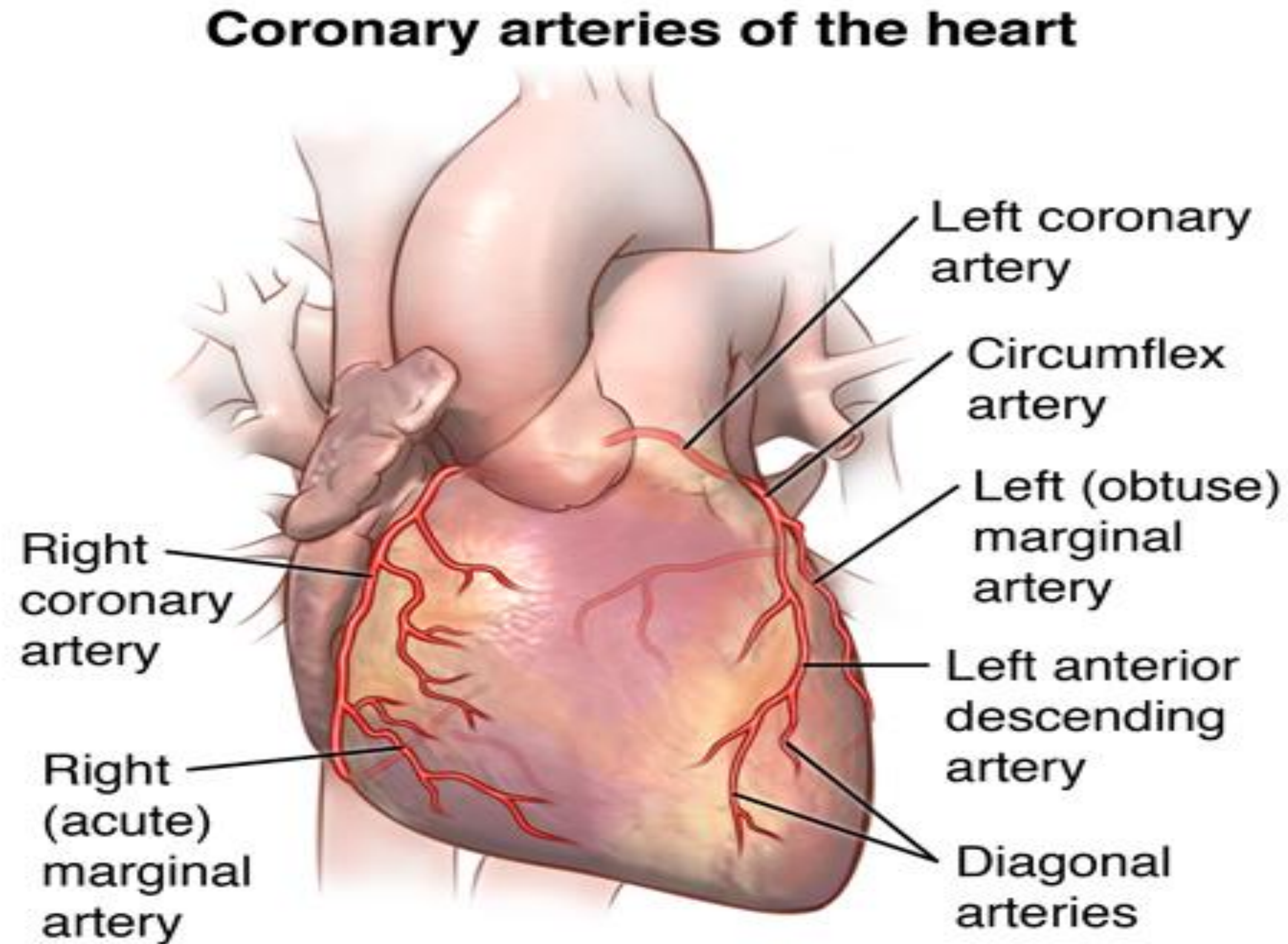


ICD-10-PCS – Coronary Artery Procedures

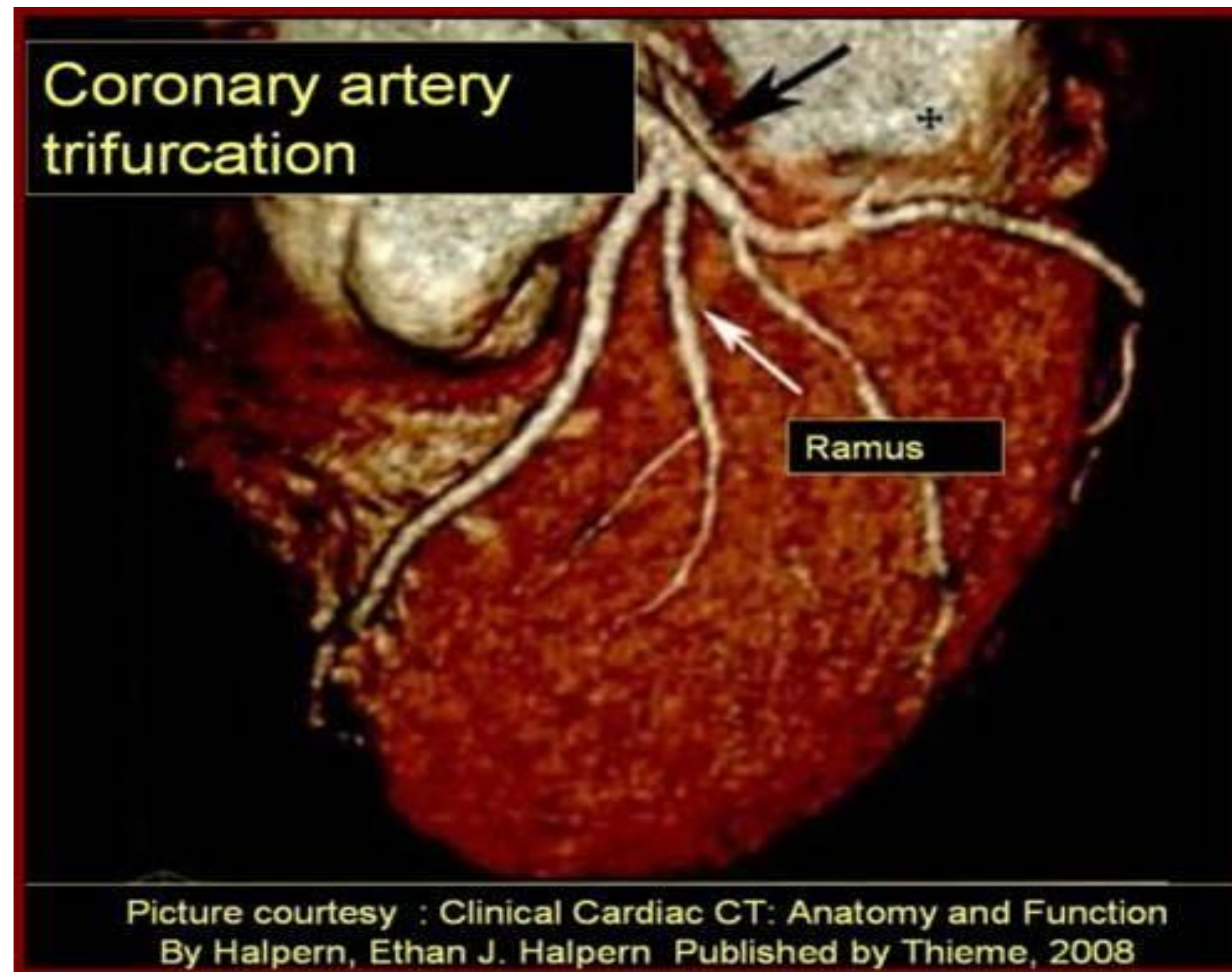
- Left Coronary Artery (LCA)
- Left circumflex (LCX)
- Obtuse marginal (OM)
- Posterior descending
- Posterolateral



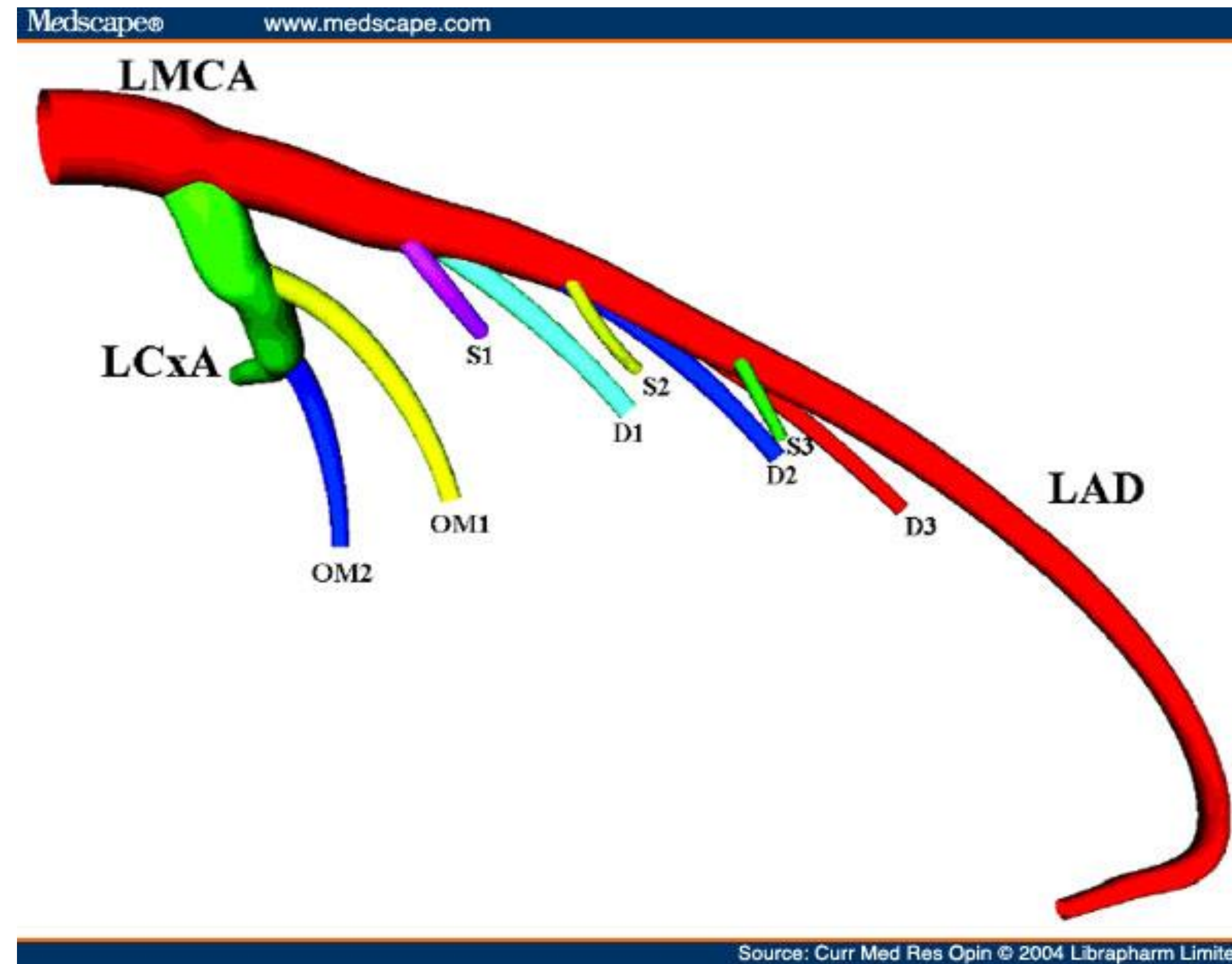
ICD-10-PCS – Coronary Arteries



ICD-10-PCS – Ramus Intermedius



ICD-10-PCS – Coronary Arteries



ICD-10-PCS – Coronary Arteries

- Coronary arteries
 - In ICD-10-PCS, the coronary arteries are classified as a single body part and are selected by the number of arteries
 - Example: CABG to the left anterior descending and obtuse marginal → coronary artery, two arteries

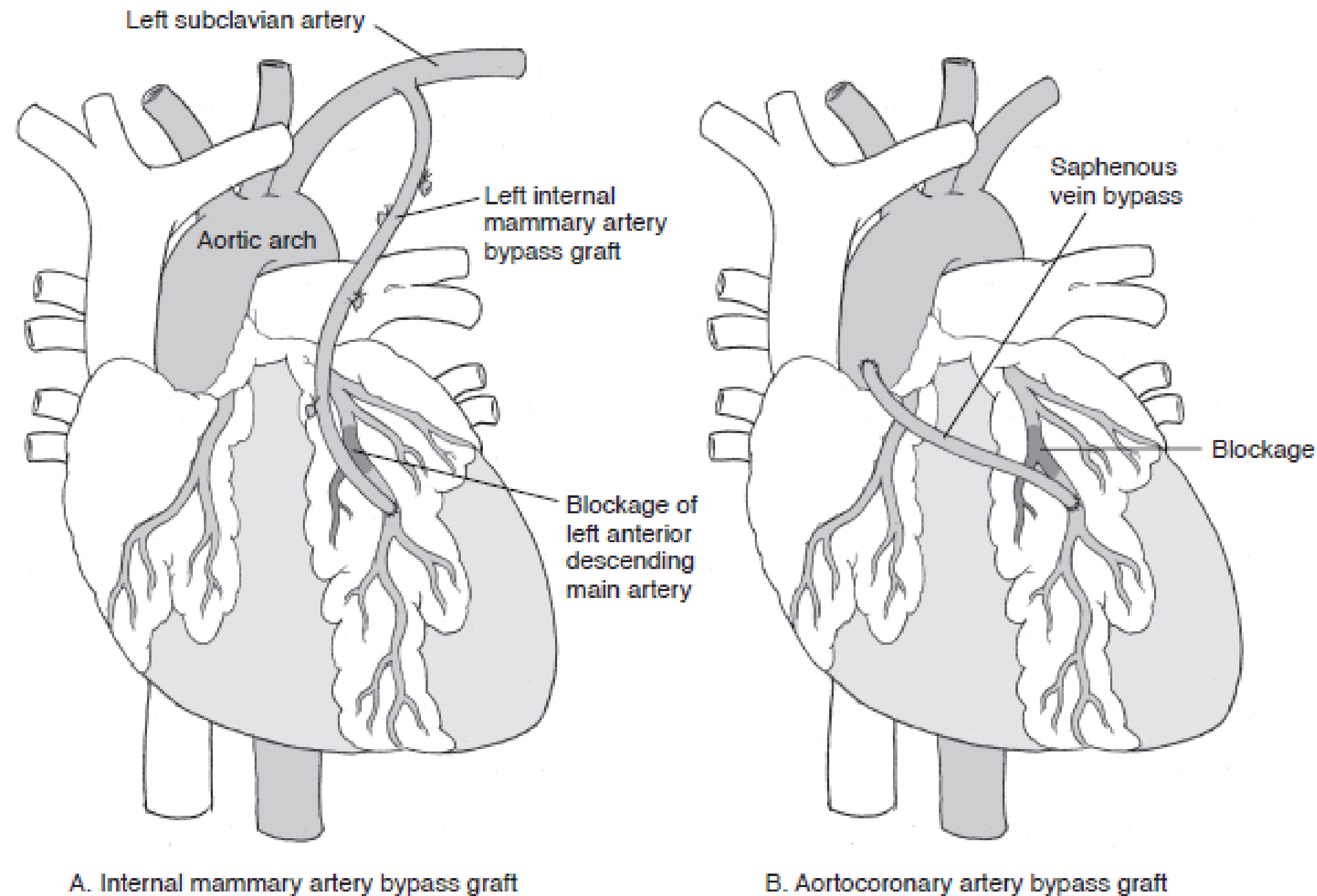
ICD-10-PCS – Coronary Arteries

- Coronary arteries
 - Code separate body part values when multiple sites are treated with different devices/qualifiers
 - Example: Quadruple CABG using three autologous venous grafts and one LIMA pedicle graft → Two ICD-10-PCS codes required:
 - Coronary artery, three arteries, autologous venous grafts
 - Coronary artery, one artery, no device

ICD-10-PCS – Coronary Artery Bypass Grafts (CABG)

- CABG is a surgical procedure in which one or more blocked coronary arteries are bypassed by a blood vessel graft to restore normal blood flow to the heart. Grafts usually are harvesting from the patient's own arteries and/or veins.

ICD-10-PCS – Coronary Artery Bypass Grafts (CABG)



ICD-10-PCS – Coronary Bypass Grafts

- Bypass procedures – Coronary arteries

0 Medical and Surgical
2 Heart and Great Vessels
1 Bypass

Body Part Character 4	Approach Character 5	Device Character 6	Qualifier Character 7
0 Coronary Artery, One Artery 1 Coronary Artery, Two Arteries 2 Coronary Artery, Three Arteries 3 Coronary Artery, Four or More Arteries			

ICD-10-PCS – Coronary Bypass Grafts

- Bypass procedures – Coronary arteries
 - Coronary artery bypass procedures are coded differently than other bypass procedures – The body part identifies the number of coronary artery sites bypassed to, and the qualifier identifies the vessel bypassed from

0 Medical and Surgical
2 Heart and Great Vessels
1 Bypass

Body Part Character 4	Approach Character 5	Device Character 6	Qualifier Character 7
0 Coronary Artery, One Artery 1 Coronary Artery, Two Arteries 2 Coronary Artery, Three Arteries 3 Coronary Artery, Four or More Arteries			3 Coronary Artery 8 Internal Mammary, Right 9 Internal Mammary, Left C Thoracic Artery F Abdominal Artery W Aorta

ICD-10-PCS – Coronary Bypass Grafts

- Bypass procedures – Coronary arteries
- If multiple coronary artery sites are bypassed, a separate procedure is coded for each coronary artery site that uses a different device/qualifier

0 Medical and Surgical
2 Heart and Great Vessels
1 Bypass

Body Part Character 4	Approach Character 5	Device Character 6	Qualifier Character 7
		9 Autologous Venous Tissue A Autologous Arterial Tissue J Synthetic Substitute K Nonautologous Tissue Substitute	3 Coronary Artery 8 Internal Mammary, Right 9 Internal Mammary, Left C Thoracic Artery F Abdominal Artery W Aorta

ICD-10-PCS – Grafts for CABGs

- Types of grafts
 - “Free” venous grafts
 - Greater saphenous vein (most common)
 - If the documentation does not specify which saphenous vein was harvested (greater/lesser) query the physician for clarification. Facilities may develop facility specific guidelines, which will establish a default code based on common practice. <AHA, Coding Clinic for ICD-10-CM/PCS Q3, 2014>
 - Femoropopliteal vein

ICD-10-PCS – Grafts for CABGs

- Types of grafts
 - Radial artery
 - Right internal mammary artery (or left internal mammary in some situations)
- “Pedicle” grafts
 - Left internal mammary artery

ICD-10-PCS – Grafts for CABGs

- Excision for graft
 - If an autograft is obtained from a different body part in order to complete the objective of the procedure, a separate procedure is coded *<PCS Guidelines>*
 - Can be performed via an open or endoscopic approach

Coding CABG - CPT vs. PCS

- Graft Harvest
 - Saphenous Vein
 - PCS – Separately Coded
 - CPT – Not Separately Coded
- LIMA
 - PCS – Separately coded if completely excised, not coded if used as a pedicle graft
 - CPT – Not Separately Coded

Coding CABG

- Procedure: CABG X 2, reverse saphenous vein graft from the aorta to the obtuse marginal; left internal mammary artery to the left anterior descending artery; cardiopulmonary bypass.

Coding CABG

- A patient presents for a double coronary bypass procedure. Patient is prepped, draped and properly anesthetized. The sternotomy incision is made and the pericardium is opened.
- The left internal mammary artery was dissected as a pedicle; at the same time a portion of the greater saphenous vein was harvested endoscopically from the left lower extremity. Cardiopulmonary bypass and cardioplegia were instituted.... The saphenous vein graft was placed end-to-end with the posterior descending artery. The left internal mammary artery was subsequently placed end-to-side with the left anterior descending coronary artery. Following completion of grafts...the patient was weaned from cardiopulmonary bypass. Incision was closed and patient was taken to recovery in good condition.

Coding CABG

- What do we need to know to approach the clinical scenario?
- Number of coronary arteries bypassed
- Number of different devices used
 - -veins, arteries, autologous, nonautologous, synthetic
- Qualifiers?
 - Point of origin for new blood supply to the heart, e.g. the aorta) were used
- Cardiopulmonary bypass ?
- Was an autologous vein and/or artery harvested ? If so – What Site?

Dissecting the Operative Session

- Harvesting
- Cardiopulmonary Bypass and Cardioplegia
- Bypass



Dissecting the Operative Session

Graft/Segment Harvest - Greater saphenous vein was harvested endoscopically from the left lower extremity

- 06BQ4ZZ



Section	0	Medical and Surgical		
Body System	6	Lower Veins		
Operation	B	Excision: Cutting out or off, without replacement, a portion of a body part		
Body Part	Approach	Device	Qualifier	
0 Inferior Vena Cava	0 Open	Z No Device	X Diagnostic	
1 Splenic Vein	3 Percutaneous		Z No Qualifier	
2 Gastric Vein	4 Percutaneous Endoscopic			
3 Esophageal Vein				
4 Hepatic Vein				
5 Superior Mesenteric Vein				
6 Inferior Mesenteric Vein				
7 Colic Vein				
8 Portal Vein				
9 Renal Vein, Right				
B Renal Vein, Left				
C Common Iliac Vein, Right				
D Common Iliac Vein, Left				
F External Iliac Vein, Right				
G External Iliac Vein, Left				
H Hypogastric Vein, Right				
J Hypogastric Vein, Left				
M Femoral Vein, Right				
N Femoral Vein, Left				
P Greater Saphenous Vein, Right				
Q Greater Saphenous Vein, Left				

Dissecting the Operative Session

Graft/Segment Harvest –

The left internal mammary artery was dissected as a pedicle.

The artery is being used as a pedicle graft and not completely dissected from of the patient

-Not coded as a harvested graft; therefore, no code is reported

<AHA Coding Clinic 3rd Quarter 2014, p 8>

Dissecting the Operative Session

Cardiopulmonary Bypass and Cardioplegia

Cardiopulmonary bypass will be coded

Cardioplegia is considered to be an auxiliary procedure done to support the surgical procedure.

<AHA Coding Clinic 3rd Quarter 2013, p 18>

Dissecting the Operative Session

Cardiopulmonary Bypass and Cardioplegia

5A1221Z

Section	5 Extracorporeal Assistance and Performance		
Body System	A Physiological Systems		
Operation	1 Performance: Completely taking over a physiological function by extracorporeal means		
Body System	Duration	Function	Qualifier
2 Cardiac	0 Single	1 Output	2 Manual
2 Cardiac	1 Intermittent	3 Pacing	Z No Qualifier
2 Cardiac	2 Continuous	1 Output 3 Pacing	Z No Qualifier
5 Circulatory	2 Continuous	2 Oxygenation	3 Membrane
9 Respiratory	0 Single	5 Ventilation	4 Nonmechanical
9 Respiratory	3 Less than 24 Consecutive Hours 4 24-96 Consecutive Hours 5 Greater than 96 Consecutive Hours	5 Ventilation	Z No Qualifier
C Biliary D Urinary	0 Single 6 Multiple	0 Filtration	Z No Qualifier

Dissecting the Operative Session

Bypass: The saphenous vein graft was placed end-to-end with the descending artery, point of origin for the blood supply is the aorta

Bypassing one coronary artery

Point of origin – Aorta

Autologous Venous Tissue

021009W

Section	0	Medical and Surgical		
Body System	2	Heart and Great Vessels		
Operation	1	Bypass: Altering the route of passage of the contents of a tubular body part		
Body Part	Approach	Device	Qualifier	
0 Coronary Artery, One Artery 1 Coronary Artery, Two Arteries 2 Coronary Artery, Three Arteries 3 Coronary Artery, Four or More Arteries	0 Open	8 Zooplastic Tissue 9 Autologous Venous Tissue A Autologous Arterial Tissue J Synthetic Substitute K Nonautologous Tissue Substitute	3 Coronary Artery 8 Internal Mammary, Right 9 Internal Mammary, Left C Thoracic Artery F Abdominal Artery W Aorta	
0 Coronary Artery, One Artery 1 Coronary Artery, Two Arteries 2 Coronary Artery, Three Arteries 3 Coronary Artery, Four or More Arteries	0 Open	Z No Device	3 Coronary Artery 8 Internal Mammary, Right 9 Internal Mammary, Left C Thoracic Artery F Abdominal Artery	

Dissecting the Operative Session

Bypass: The left internal mammary artery was subsequently placed end-to-side with the left anterior descending coronary artery.

Bypassing one coronary artery

Blood Supply Point of Origin: LIMA

No Device

Not Completely dissected

02100AW

Section	0	Medical and Surgical		
Body System	2	Heart and Great Vessels		
Operation	1	Bypass: Altering the route of passage of the contents of a tubular body part		
Body Part	Approach	Device	Qualifier	
0 Coronary Artery, One Artery 1 Coronary Artery, Two Arteries 2 Coronary Artery, Three Arteries 3 Coronary Artery, Four or More Arteries	0 Open	8 Zooplastic Tissue 9 Autologous Venous Tissue A Autologous Arterial Tissue J Synthetic Substitute K Nonautologous Tissue Substitute	3 Coronary Artery 8 Internal Mammary, Right 9 Internal Mammary, Left C Thoracic Artery F Abdominal Artery W Aorta	
0 Coronary Artery, One Artery 1 Coronary Artery, Two Arteries 2 Coronary Artery, Three Arteries 3 Coronary Artery, Four or More Arteries	0 Open	Z No Device	3 Coronary Artery 8 Internal Mammary, Right 9 Internal Mammary, Left C Thoracic Artery F Abdominal Artery	

Dissecting the Operative Session

Final Codes:

Saphenous Vein Graft - 021009W

LIMA to LAD - 02100AW

Cardiopulmonary Bypass -5A1221Z

Saphenous Vein Harvest - 06BQ4ZZ



The Challenge of PTCA Coding

PCS Table 027 – PTCA with Stenting

- Added number of stents vs. just drug-eluting or non-drug eluting
- These options were also added to PCS tables 037- (Upper Arteries) and 047- (Lower Arteries)

Section	0	Medical and Surgical		
Body System	2	Heart and Great Vessels		
Operation	7	Dilation: Expanding an orifice or the lumen of a tubular body part		
Body Part	Approach		Device	Qualifier
0 Coronary Artery, One Artery	0 Open		4 Intraluminal Device, Drug-eluting	6 Bifurcation Z No Qualifier
1 Coronary Artery, Two Arteries	3 Percutaneous		5 Intraluminal Device, Drug-eluting, Two	
2 Coronary Artery, Three Arteries	4 Percutaneous Endoscopic		6 Intraluminal Device, Drug-eluting, Three	
3 Coronary Artery, Four or More Arteries			7 Intraluminal Device, Drug-eluting, Four or More	
			D Intraluminal Device	
			E Intraluminal Device, Two	
			F Intraluminal Device, Three	
			G Intraluminal Device, Four or More	

Coding For Stent Placement

- Procedure: PTCA with Stenting
- The patient is brought to the cath and conscious sedation is administered and verified. The planned puncture sites are prepped and draped in the usual sterile fashion. Left heart catheterization, ventriculography, and selective coronary angiography, as a result of the findings a primary drug-eluting stent (DES) was placed in the mid Circumflex with balloon angioplasty under fluoroscopy.
- Seldinger technique used from RFA access. catheter selected coronary angiograms done using low osmolar contrast material (LOCM).

Coding For Stent Placement

- Selective Coronary Angiography:

The left main coronary artery is an average-sized vessel with no significant disease.

The left anterior descending coronary artery is 80% occluded in the mid-portion.

Ramus intermedius is a variant coronary artery resulting from trifurcation of the left main coronary artery

Coding For Stent Placement

- Selective Coronary Angiography:
- The PTCA balloon is advanced into the mid portion of the Circumflex artery past the lesion, placed under fluoroscopy and inflated to 8 atmospheres, the balloon is removed and angiograms demonstrated fair results. A decision is made to stent the lesion - successfully advanced & placement of DES across the stenosis inflated to 12 atmospheres for 30 seconds. This results in no residual stenosis and TIMI-III flow distally.
- The DES stent is successfully placed to the mid Circumflex

Dissecting the Operative Report

- Fluoroscopy of the coronary arteries

<i>Section</i>	B	Imaging		
<i>Body System</i>	2	Heart		
<i>Type</i>	1	Fluoroscopy: Single plane or bi-plane real time display of an image developed from the capture of external ionizing radiation on a fluorescent screen. The image may also be stored by either digital or analog means		
<i>Body Part</i>	<i>Contrast</i>		<i>Qualifier</i>	<i>Qualifier</i>
0 Coronary Artery, Single 1 Coronary Arteries, Multiple 2 Coronary Artery Bypass Graft, Single 3 Coronary Artery Bypass Grafts, Multiple	0 High Osmolar 1 Low Osmolar Y Other Contrast		1 Laser	0 Intraoperative
0 Coronary Artery, Single 1 Coronary Arteries, Multiple 2 Coronary Artery Bypass Graft, Single 3 Coronary Artery Bypass Grafts, Multiple	0 High Osmolar 1 Low Osmolar Y Other Contrast		Z None	Z None

Dissecting the Operative Report

- Fluoroscopy of the coronary arteries
 - The left main coronary artery is an average-sized vessel with no significant disease. The left circumflex coronary artery is 80% occluded in the mid-portion. Ramus intermedius is a variant coronary artery resulting from trifurcation of the left main coronary artery
- **B2111ZZ – Fluoroscopy, coronary arteries, multiple, low osmolar contrast**

Dissecting the Operative Report

- Angiography and Stent placement

<i>Section</i>	0	Medical and Surgical		
<i>Body System</i>	2	Heart and Great Vessels		
<i>Operation</i>	7	Dilation: Expanding an orifice or the lumen of a tubular body part		
<i>Body Part</i>	<i>Approach</i>		<i>Device</i>	<i>Qualifier</i>
0 Coronary Artery, One Artery 1 Coronary Artery, Two Arteries 2 Coronary Artery, Three Arteries 3 Coronary Artery, Four or More Arteries	0 Open 3 Percutaneous 4 Percutaneous Endoscopic		4 Intraluminal Device, Drug-eluting 5 Intraluminal Device, Drug-eluting, Two 6 Intraluminal Device, Drug-eluting, Three 7 Intraluminal Device, Drug-eluting, Four or More D Intraluminal Device E Intraluminal Device, Two F Intraluminal Device, Three G Intraluminal Device, Four or More T Intraluminal Device, Radioactive Z No Device	6 Bifurcation Z No Qualifier

Dissecting the Operative Report

- Angiography and Stent placement
- The left circumflex artery is 80% occluded in the mid-portion. . A decision is made to stent the lesion - successfully advanced & placement of DES across the stenosis inflated to 12 atmospheres for 30 seconds.
- **027034Z – Dilation, coronary artery, one artery, percutaneous, drug eluting intraluminal device**



Dissecting the Operative Report

- Final Codes
 - **B2111ZZ – Fluoroscopy, coronary arteries, multiple, low osmolar contrast**
 - **027034Z – Dilation, coronary artery, one artery, percutaneous, drug eluting intraluminal device**



Digestive Procedures

ICD-10-PCS – Excision vs. Resection

- Root Operations
 - Excision vs. Resection
 - Excision – cutting out or off, without replacement, a portion of a body part
 - E.g., Partial segmental resection of transverse colon

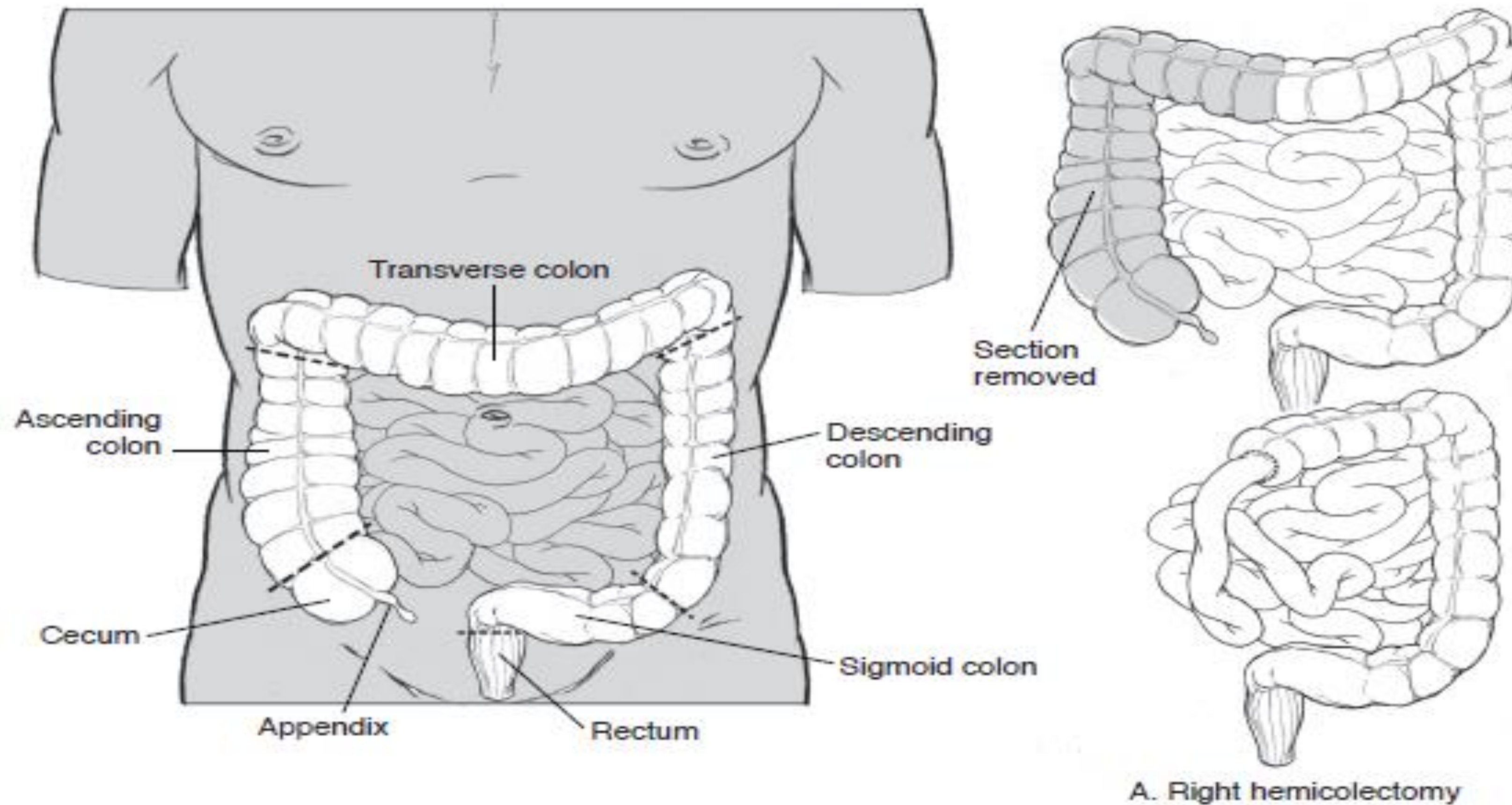
ICD-10-PCS – Excision vs. Resection

- Root Operations
 - Excision vs. Resection
 - Resection – cutting out or off, without replacement, all of a body part
 - E.g., Sigmoidectomy
 - This can be confusing because “resection” generally means to excise all or part of an organ or structure

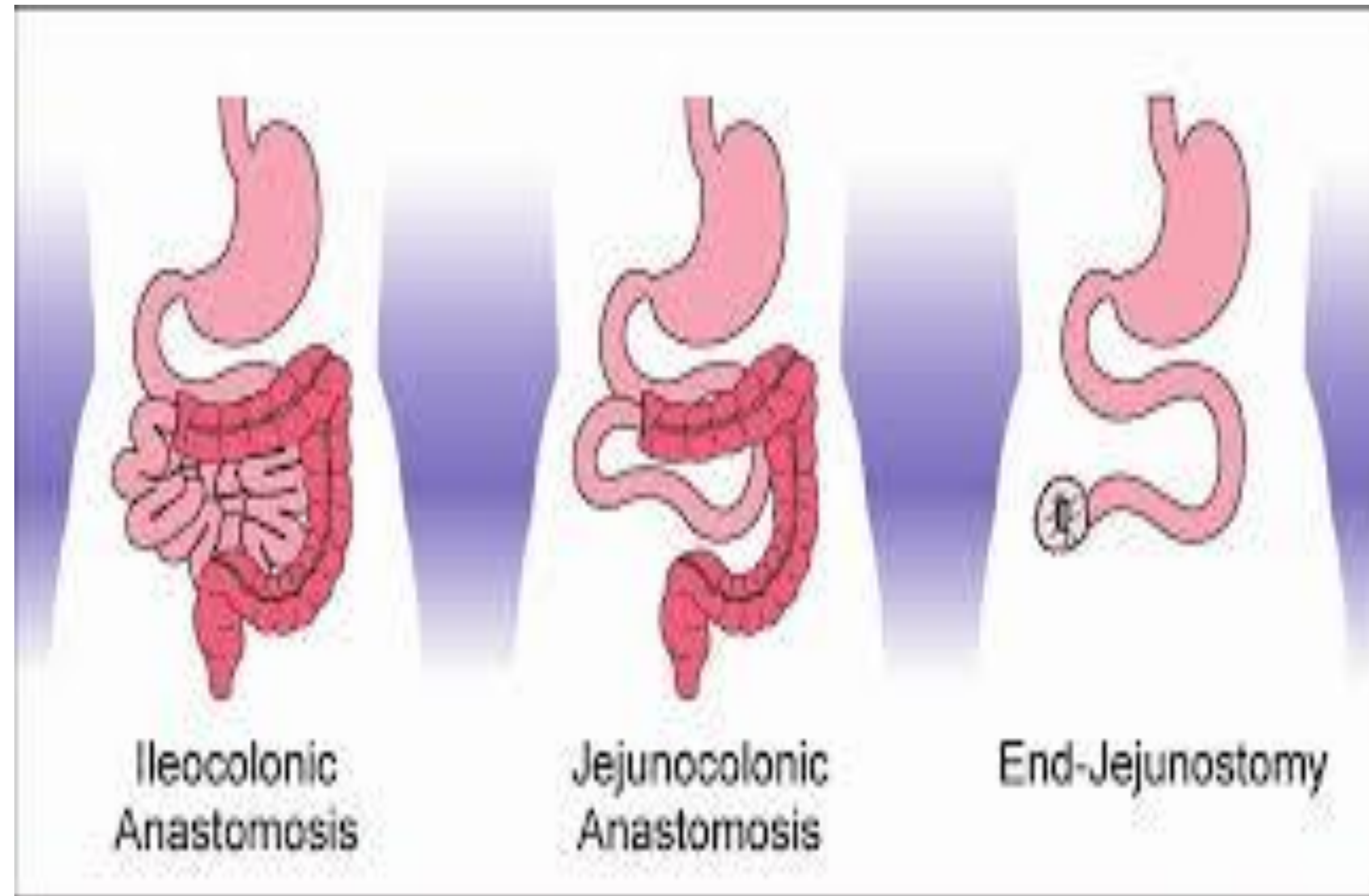
ICD-10-PCS – Lobes and Regions

- Excision vs. Resection
- ICD-10-PCS contains specified body parts for anatomical subdivisions of a body part such as:
 - Regions of intestine (duodenum, jejunum, ascending, descending, transverse)
 - Regions of the pancreas (head, body, tail)
- Resection of the specific body part is coded whenever all of the body part is cut out/off, rather than coding Excision of a less specific body part

Large Bowel Resection



Small Bowel Resection



Approaches

- Bowel resections can be performed:
 - Open – single long incision
 - Laparoscopic – accessed through 4-5 smaller incisions; one may be extended to about 2-3 inches to grasp bowel portion to be removed.

ICD-10-PCS – Anastomosis

- Anastomosis- joining together; connection between two vessels; an opening created by surgical, traumatic or pathological means. <Dorlands>
- Anastomosis is not a root operation and is considered integral to the procedure when performed and should not be coded separately. <PCS Guidelines>
- Caution! Anastomosis –See Bypass in Alphabetic Index
- ICD-10-PCS guideline B31.b- “Procedural steps necessary to reach the operative not coded separately.” This guideline applies to side to side and end to end anastomosis. <AHA, Coding Clinic for ICD-10-CM/PCS, Q4 2014>

Nervous System Procedures

ICD-10-PCS – Extirpation vs. Drainage

- A hematoma is a localized collection of blood outside of the vessel. A subdural hematoma can either be acute (subacute) or chronic.
 - An acute subdural hematoma is characterized by a solid or gelatinous clot. → Extirpation
 - A chronic subdural hematoma is typically composed of liquid matter rather than solid. → Drainage
- If there is both drainage of liquid and cleaning out of solid matter, code only “Extirpation.”
- When this information is not available, “Extirpation” is the default. *<AHA, Coding Clinic, Q3, 2015>*

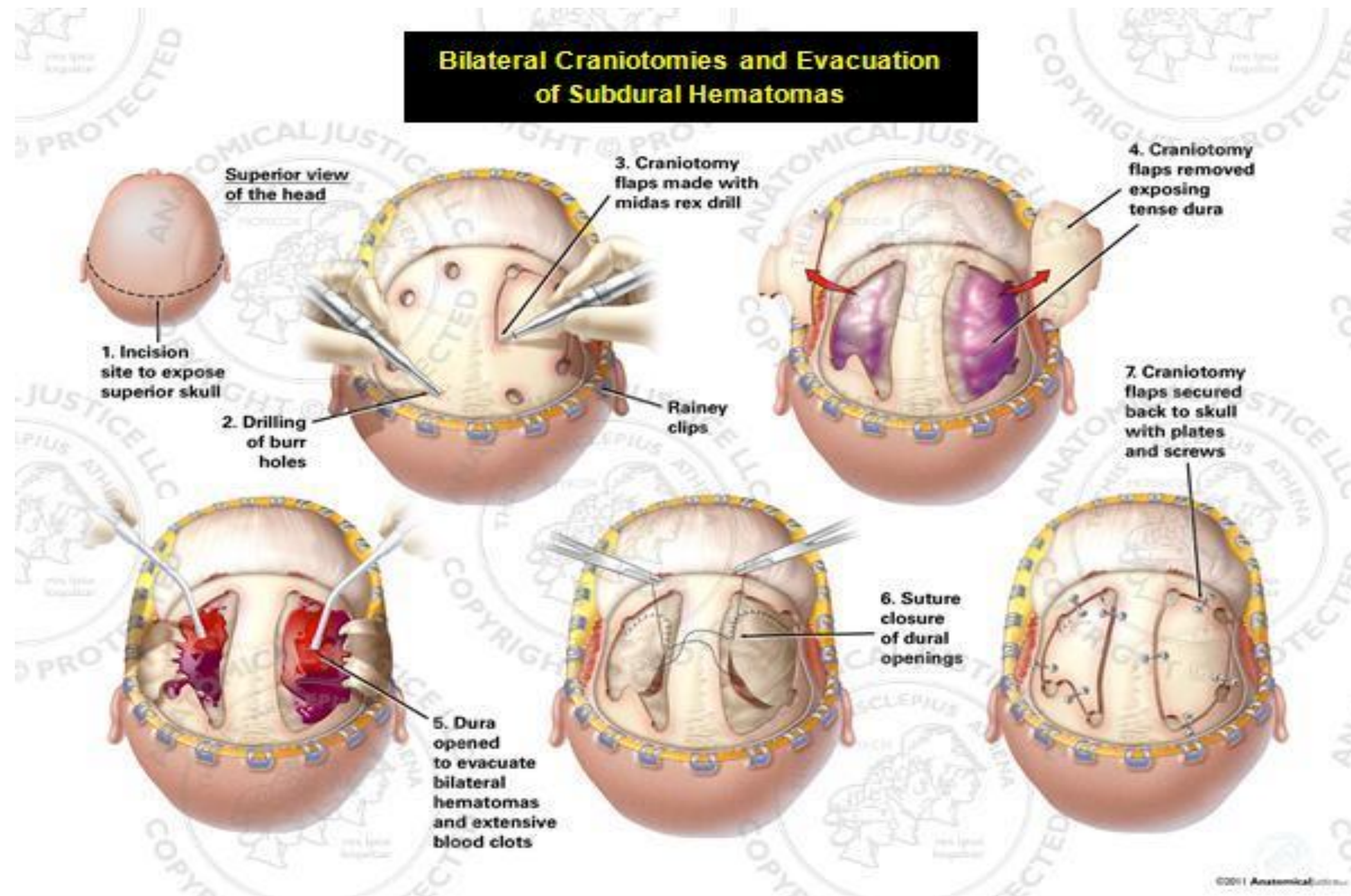
ICD-10-PCS – Extirpation Vs. Drainage

- Approaches *<AHA, Coding Clinic, Q3, 2015>*
 - Craniotomy with Burr holes = Open
 - Typically performed for acute SDHs
 - Burr holes = Percutaneous
 - Typically only done for chronic SDH's

ICD-10-PCS – Extirpation Vs. Drainage

- Drainage Devices
 - Subdural Evacuation Portal System (SEPS)
 - **009430Z** Drainage of subdural space with drainage device, percutaneous approach
 - [S.E.P.S Video](#)

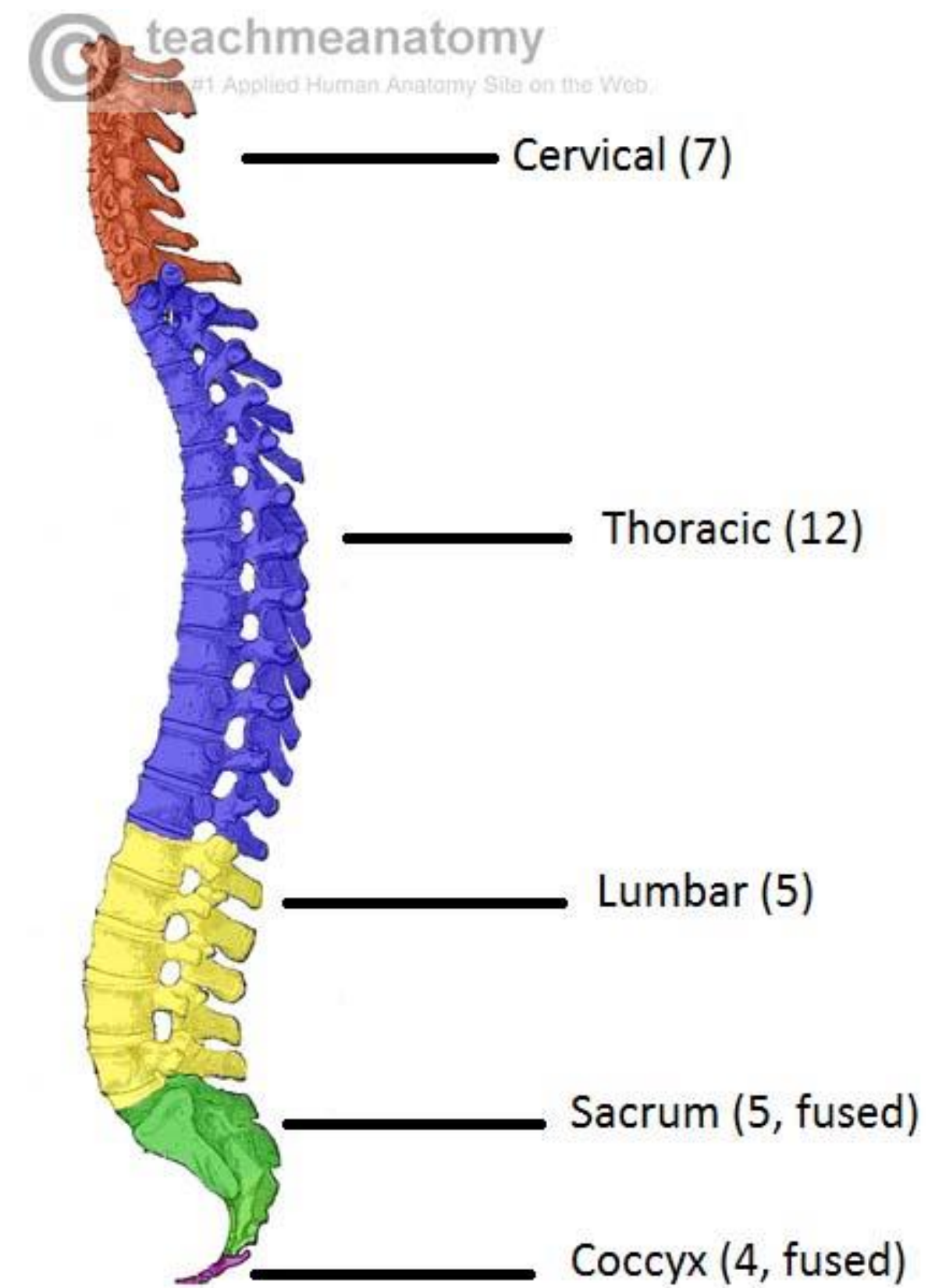
Craniotomy w/ Burr Holes



Musculoskeletal Procedures

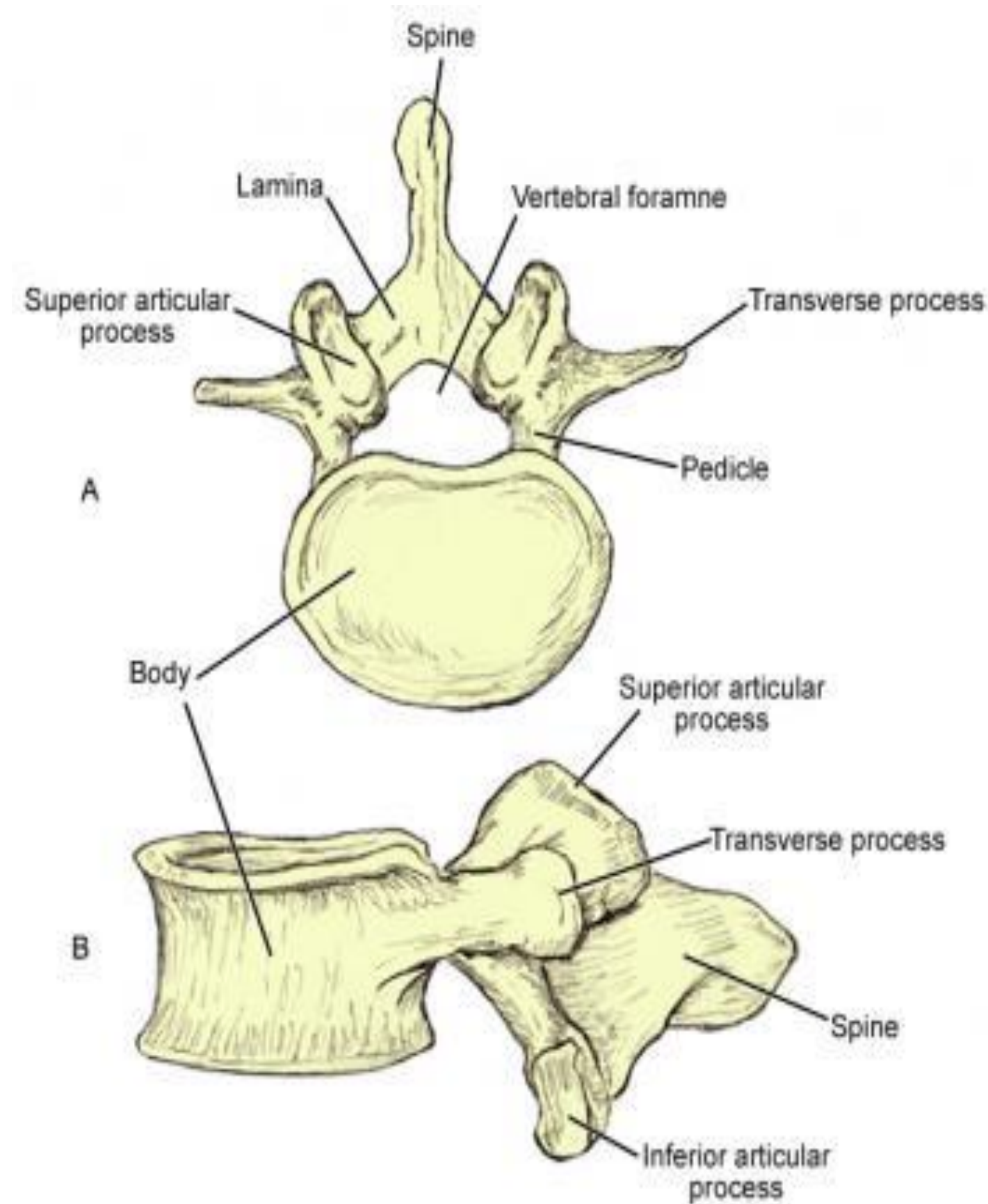


Spinal Anatomy 101



Source: teachmeanatomy.info

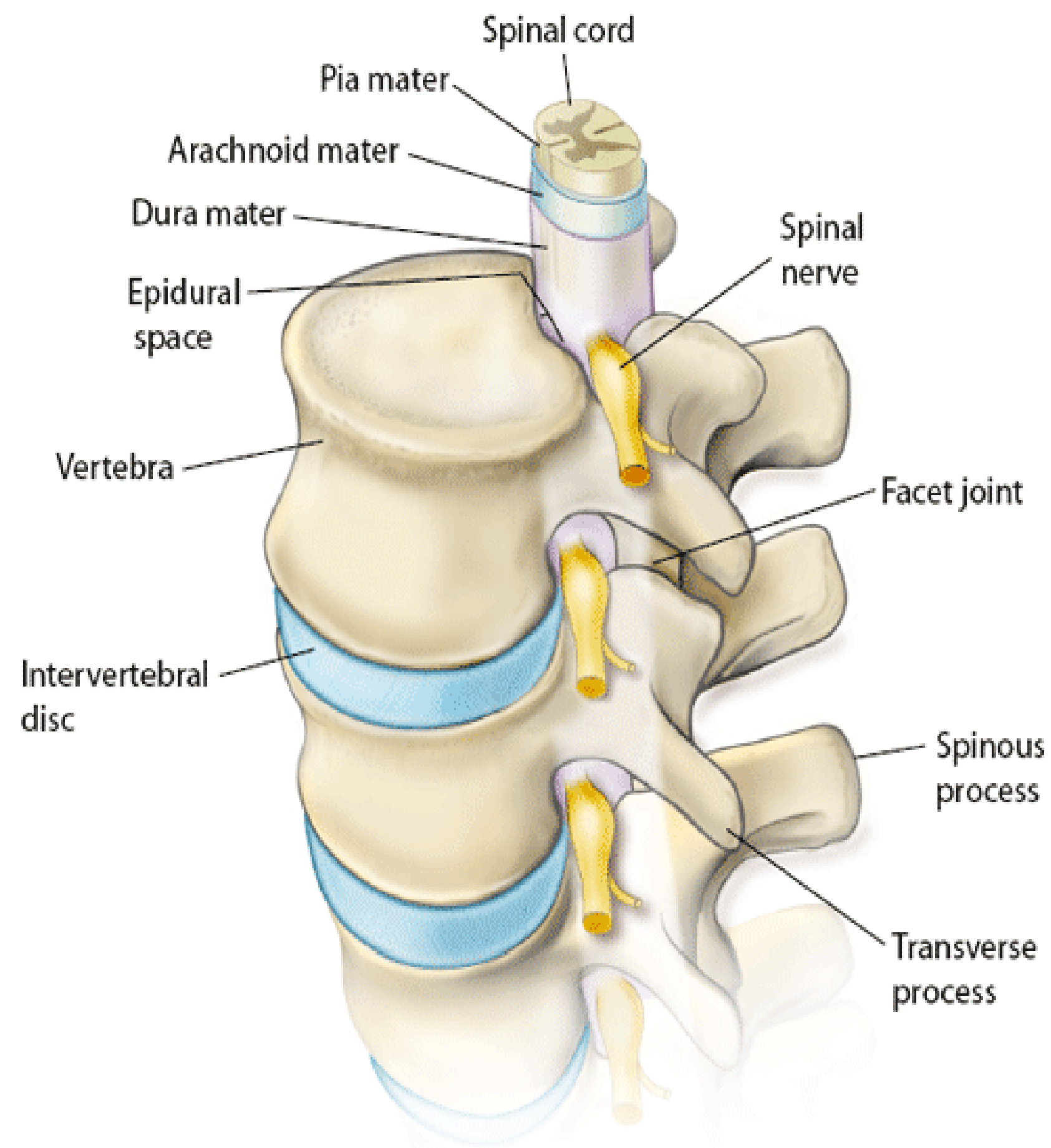
Spinal Anatomy 101 – Vertebral Segment



- Vertebral Segment
 - Vertebral body -- Anterior
 - Spinous process (spine)–Posterior
 - Vertebral foramen –Space where the spinal cord passes
 - Transverse processes (2)
 - Lamina (2) – Connects transverse processes to spinous process
 - Pedicles (2) – Connects transverse processes to vertebral body

• Source: emedicine.Medscape.com

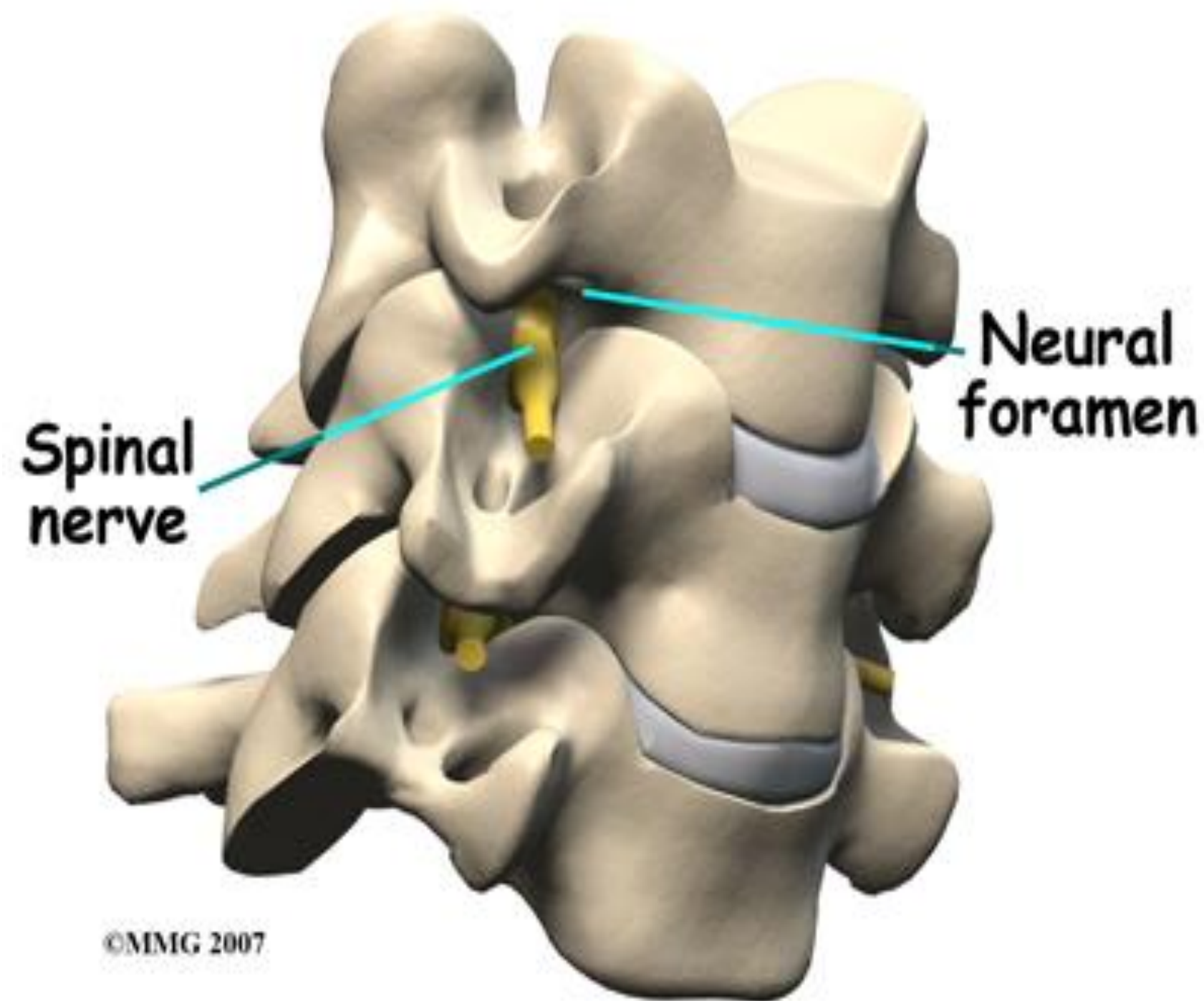
Spinal Anatomy 101 – Facets



- Facets – articulate with the vertebra above and below
 - They allow mobility (flexibility) of the spine.
 - Per PCS, code to Body Part **Joint** (Upper or Lower) depending on region of spine

• Source: columbianeurosurg.org

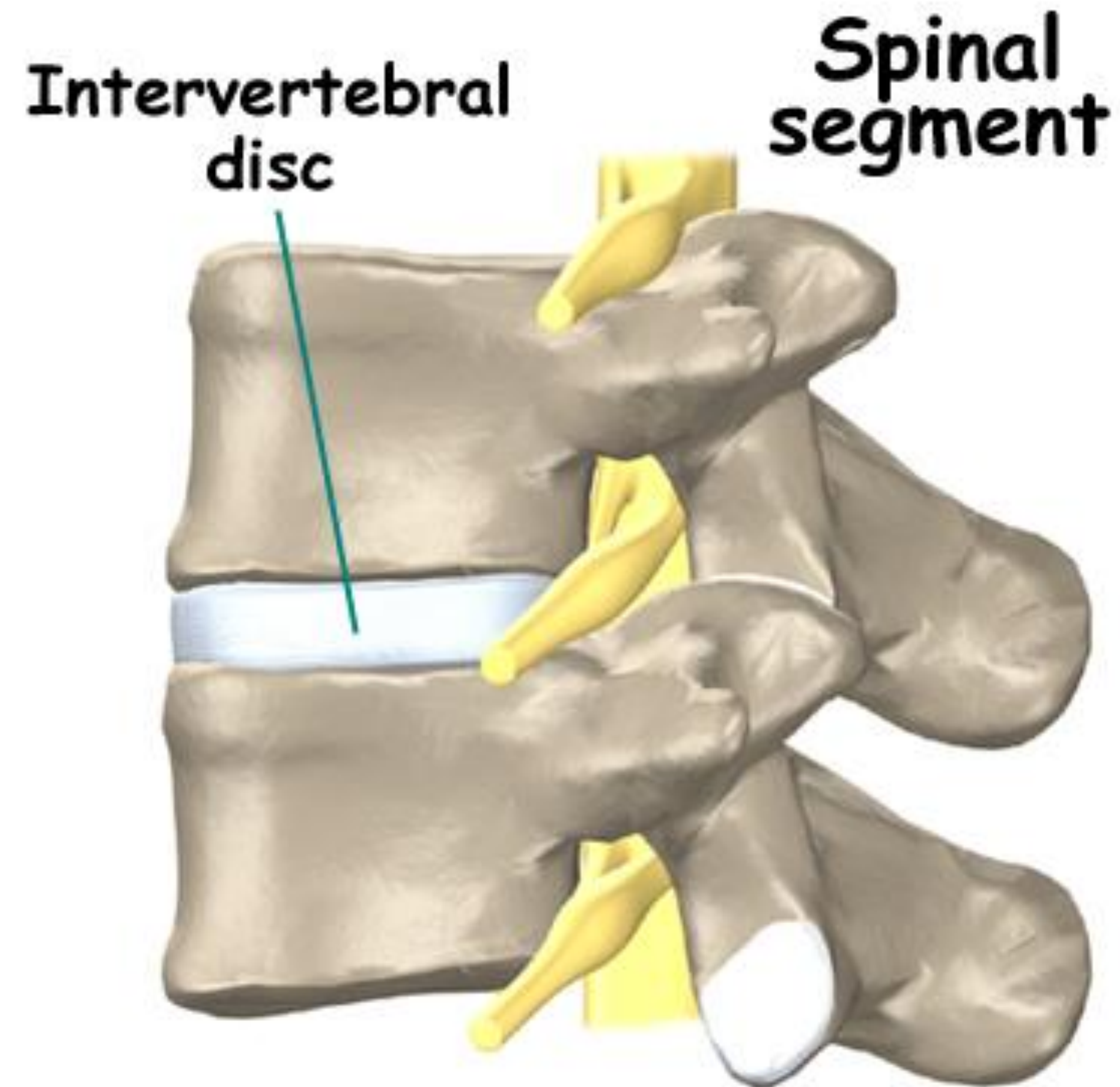
Spinal Anatomy 101 – Neural Foramen



- Neural foramen – spaces between vertebral segments
 - Location where spinal nerves exit spinal canal

• *Source: houstonmethodist.org*

Spinal Anatomy 101 – Segment/Interspaces



- Vertebral segment = BONES
- Vertebral Interspaces = JOINTS

©MMG 2002

• *Source: concordortho.com*

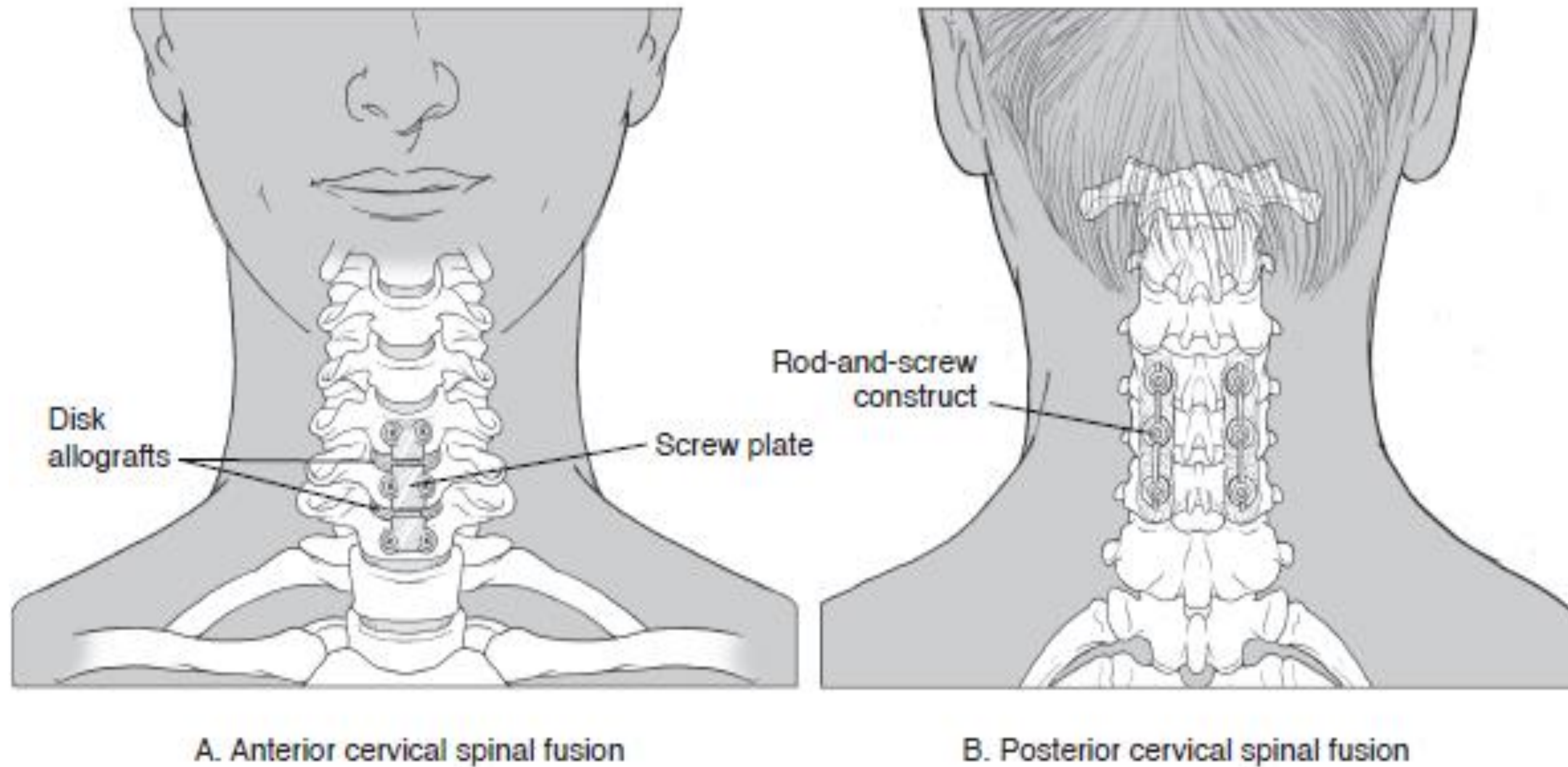
ICD-10-PCS – Fusion Procedures

- Spinal fusion is a surgical procedure to permanently join together two or more vertebrae in the spine so there is no movement between them. *<aaos.org>*
- The basic idea is to fuse together the painful vertebrae so that they heal into a single, solid bone.

ICD-10-PCS – Fusion Procedures

- Procedures performed for such conditions as:
 - Spinal stenosis
 - Injury or fractures to the bones in the spine
 - Weak or unstable spine caused by infections or tumors
 - Spondylolisthesis, a condition in which one vertebra slips forward on top of another
 - Abnormal curvatures (e.g., scoliosis or kyphosis)
 - <http://www.youtube.com/watch?v=PsYyVtBph7E>

ICD-10-PCS – Spinal Fusion



ICD-10-PCS – Fusion Procedures

- The body part coded for a spinal vertebral joint(s) rendered immobile by a spinal fusion procedure is classified by the level of the spine (e.g. lumbar)
- There are distinct body part values for a single vertebral joint vs. multiple vertebral joints at each spinal level

<i>Section</i>	0	Medical and Surgical		
<i>Body System</i>	R	Upper Joints		
<i>Operation</i>	G	Fusion: Joining together portions of an articular body part rendering the articular body part immobile		
<i>Body Part</i>	<i>Approach</i>		<i>Device</i>	<i>Qualifier</i>
0 Occipital-cervical Joint	0 Open		7 Autologous Tissue Substitute	0 Anterior Approach, Anterior Column
1 Cervical Vertebral Joint	3 Percutaneous		A Interbody Fusion Device	1 Posterior Approach, Posterior Column
2 Cervical Vertebral Joints, 2 or more	4 Percutaneous Endoscopic		J Synthetic Substitute	J Posterior Approach, Anterior Column
4 Cervicothoracic Vertebral Joint			K Nonautologous Tissue Substitute	
6 Thoracic Vertebral Joint			Z No Device	
7 Thoracic Vertebral Joints, 2 to 7				
8 Thoracic Vertebral Joints, 8 or more				
A Thoracolumbar Vertebral Joint				

Pedicle Screws/Plates

- Components of a procedure specified in the root operation definition and explanation are not coded separately.
- The explanation in the root operation for fusion states “that body part is joined together by fixation device, bone graft, or other means.”
- Therefore, the fixation (rods, plates, screws) is included in the fusion root operation, and no additional code is assigned. *<AHA, Coding Clinic, Q3,2014>*

ICD-10-PCS – Fusion Procedures

- Fusion procedures of the spine
- If multiple vertebral joints are fused, a separate procedure is coded for each vertebral joint that uses a different device

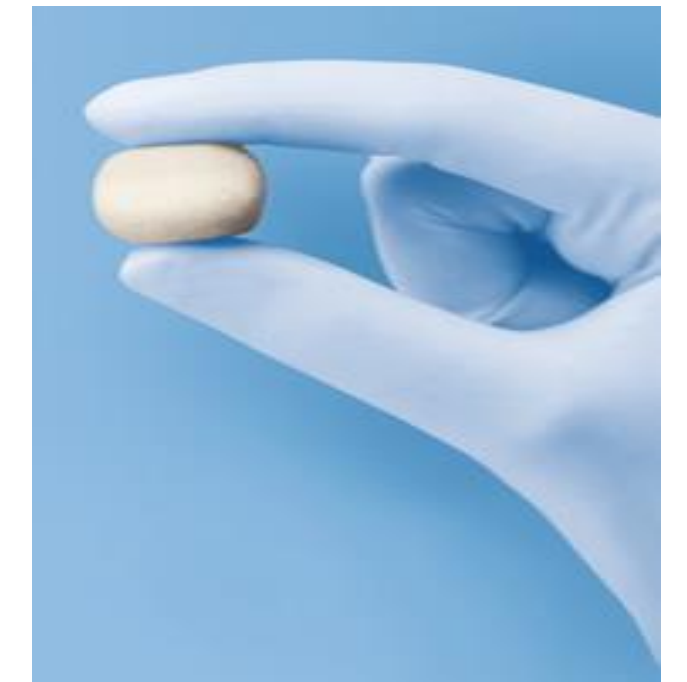
<i>Section</i>	0	Medical and Surgical		
<i>Body System</i>	R	Upper Joints		
<i>Operation</i>	G	Fusion: Joining together portions of an articular body part rendering the articular body part immobile		
<i>Body Part</i>	<i>Approach</i>		<i>Device</i>	<i>Qualifier</i>
0 Occipital-cervical Joint	0 Open		7 Autologous Tissue Substitute	0 Anterior Approach, Anterior Column
1 Cervical Vertebral Joint	3 Percutaneous		A Interbody Fusion Device	1 Posterior Approach, Posterior Column
2 Cervical Vertebral Joints, 2 or more	4 Percutaneous Endoscopic		J Synthetic Substitute	J Posterior Approach, Anterior Column
4 Cervicothoracic Vertebral Joint			K Nonautologous Tissue Substitute	
6 Thoracic Vertebral Joint			Z No Device	
7 Thoracic Vertebral Joints, 2 to 7				
8 Thoracic Vertebral Joints, 8 or more				
A Thoracolumbar Vertebral Joint				

Autologous Tissue Substitutes

- Autologous tissue – Comes from the patient
- Through same incision (common in posterior fusions) – Not coded separately
- Separate incision (common in anterior fusions)
- If an autograft is obtained from a different body part in order to complete the objective of the procedure, a separate procedure is coded. <PCS Guidelines, B3.9>

Non-Autologous Tissue Substitutes

- Non-autologous tissue – Comes from a bone bank or a cadaver
- Demineralized Bone Matrix (DBM) – Allograft bone (cadaver bone graft) can be manipulated (demineralized) to extract the proteins that stimulate bone formation. These proteins are processed and available in various forms, such as chips, gel, putty or powder. May be used alone or as a bone extender. *<spine-health.com>*



Non-Autologous Tissue Substitutes

- Bone Morphogenetic Proteins (BMP) --are naturally occurring proteins found in the human body that can aid in bone formation.
 - Only FDA approved for ALIF
 - Create a spinal fusion as well as or better than using the patient's own bone.
 - To eliminate the need for harvesting the patient's bone from the iliac crest. <spine-health.com>

Synthetic Tissue Substitutes

- Synthetic Substitute
 - Synthetic Bone Graft Extenders
 - There are several substances such as ceramics, calcium phosphates and other synthetic materials that have similar biomechanical properties and structure similar to that of cadaver bone and may be used as a bone graft substitute.

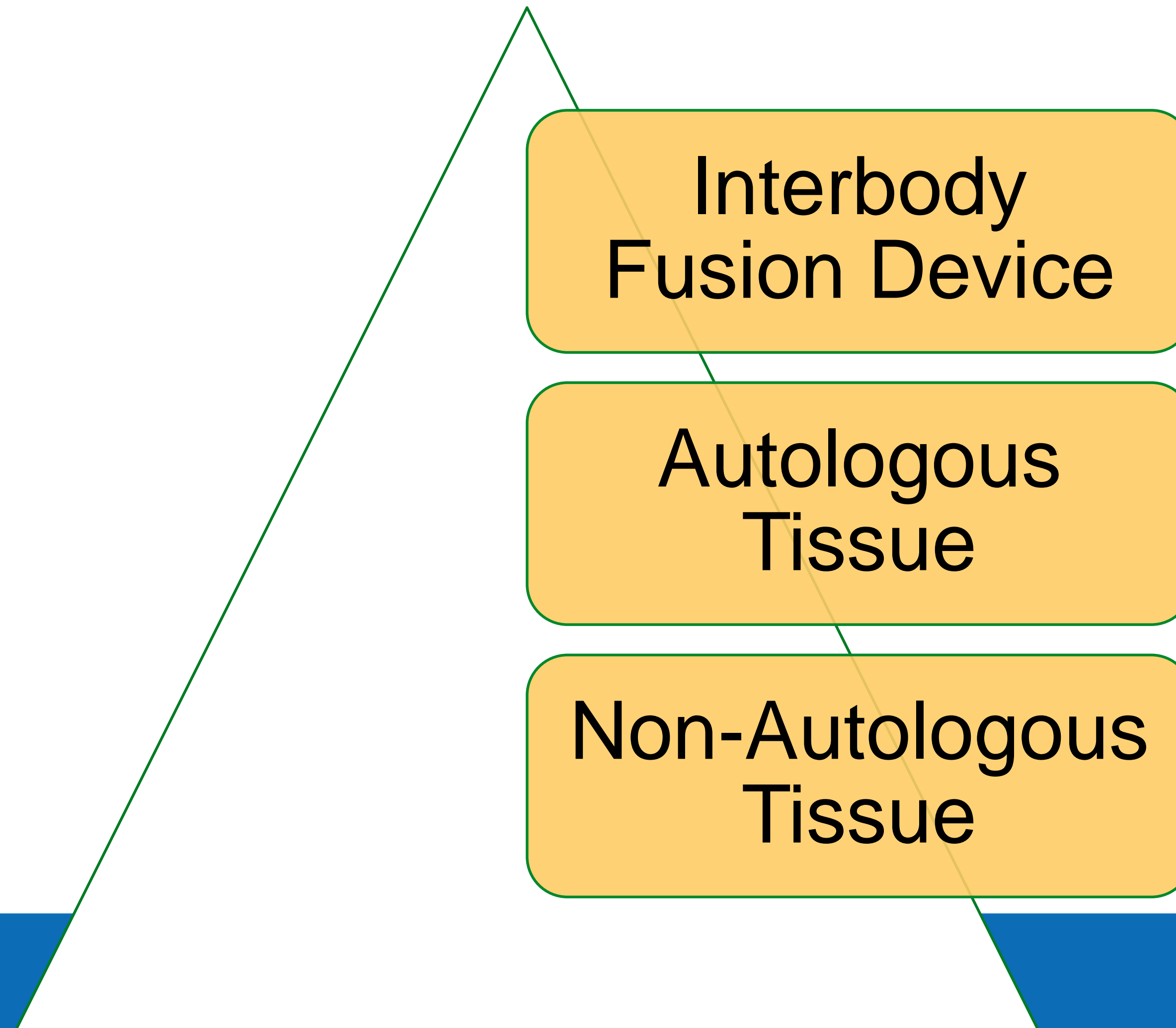
Inter-body Fusion Device

- “Inter-body” means in between the vertebral bodies
- Most are placed in the anterior column
- Example: “cages”

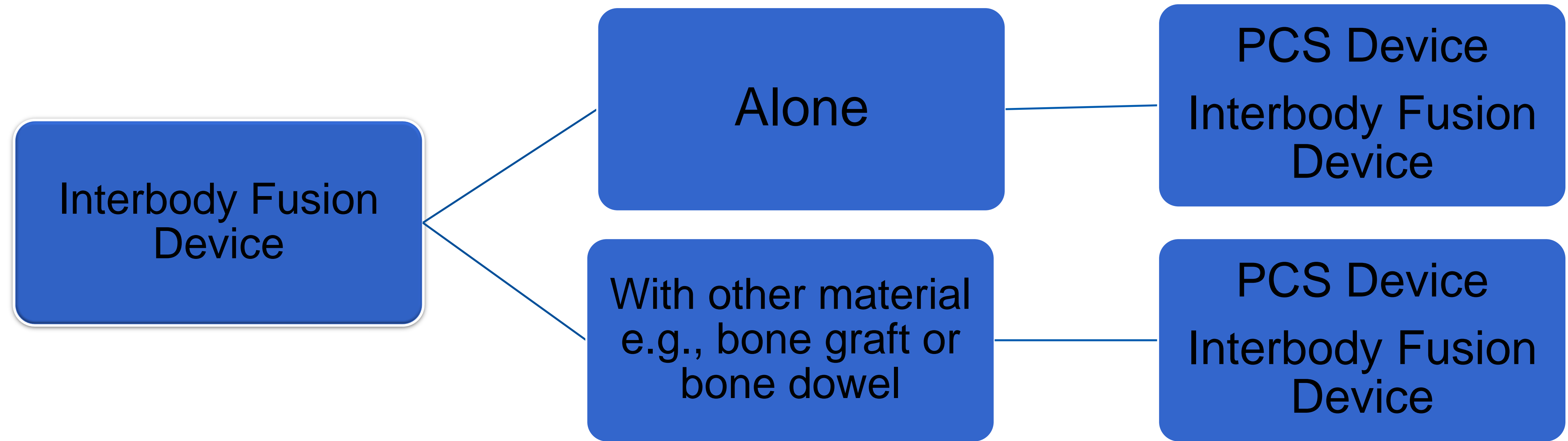


• *Source: umm.edu*

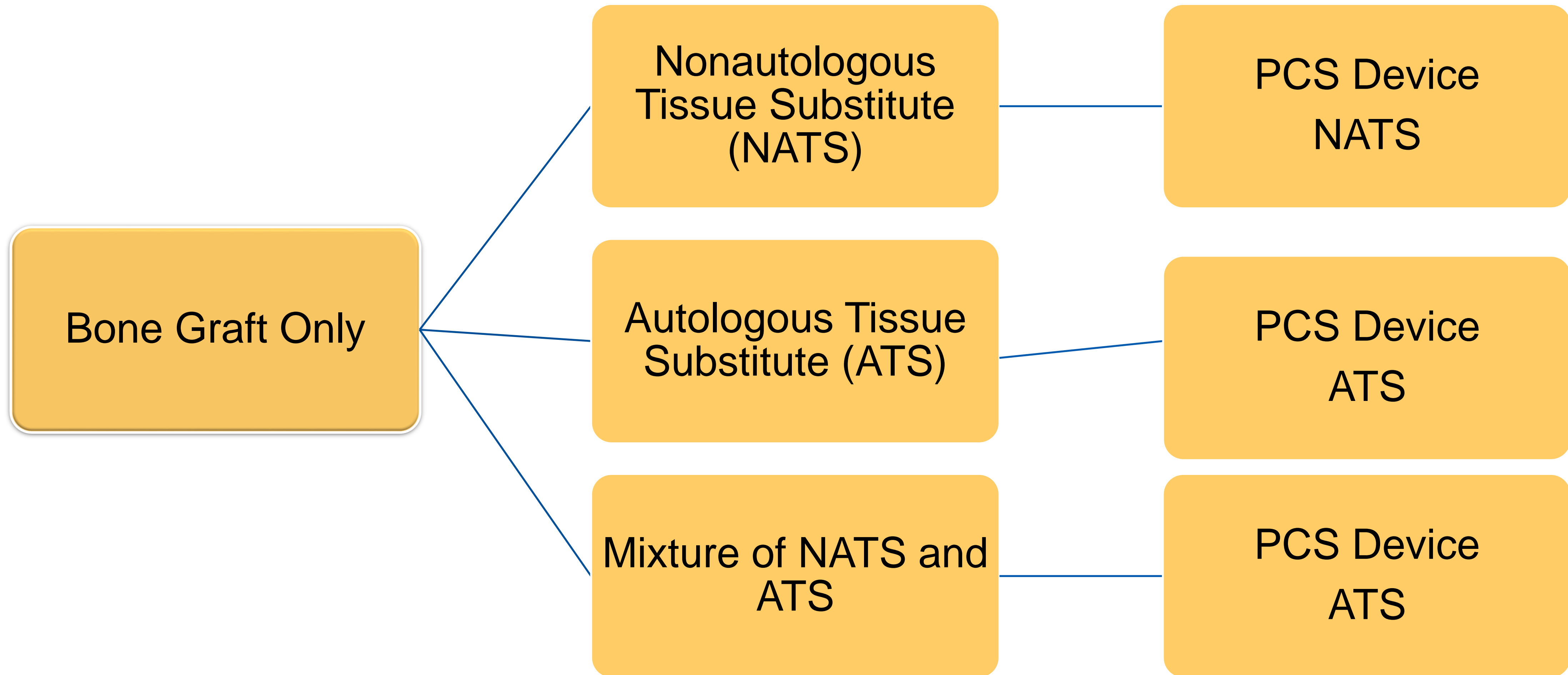
Fusion Device Hierarchy



Fusion Devices



Fusion Devices



Fusion Qualifiers – Lumbar

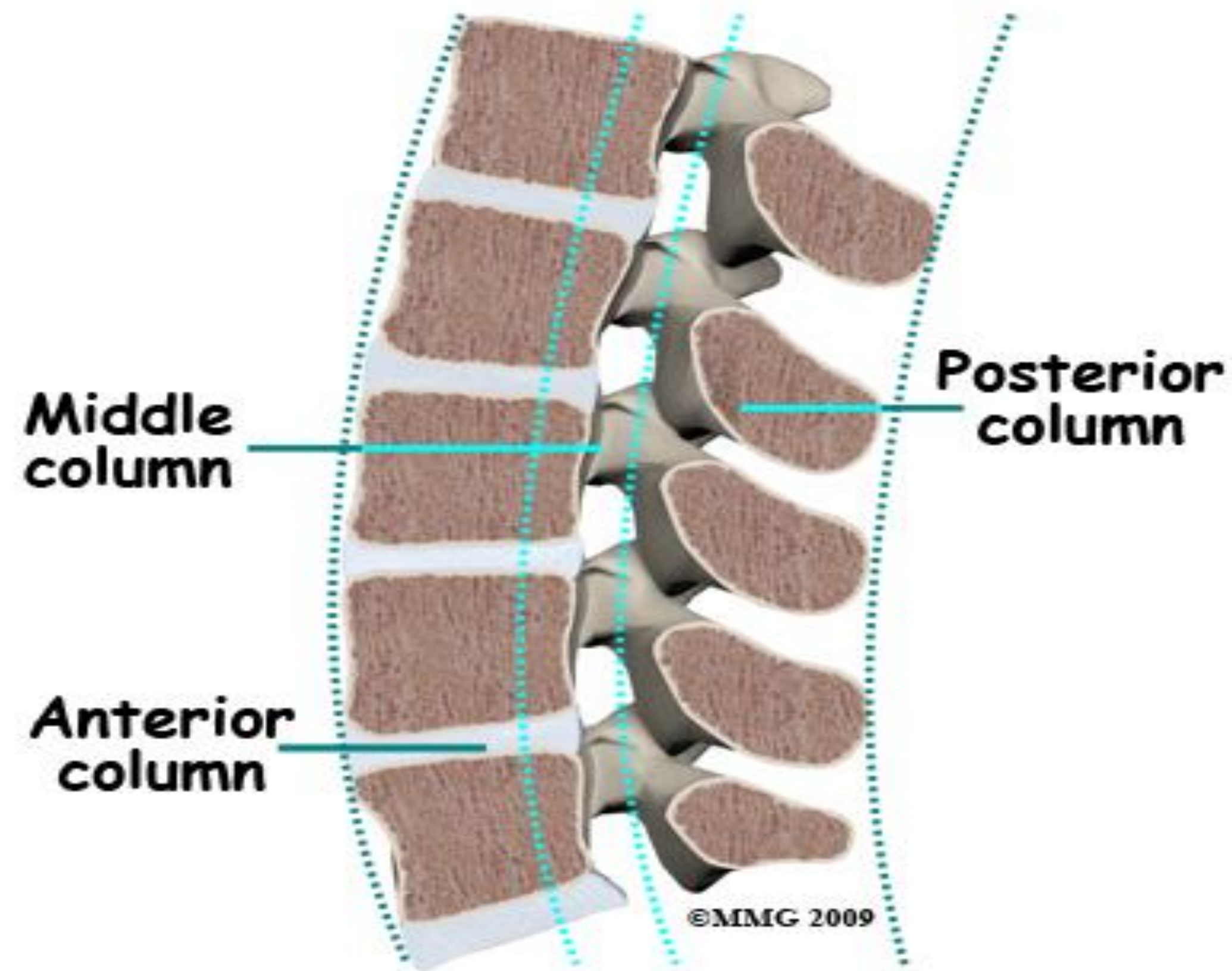
Procedure	Approach/Column
Anterior Lumbar Interbody Fusion (ALIF)	Anterior/Anterior
Extreme Lateral Interbody Fusion (XLIF)	Anterior/Anterior
Posterior Lumbar Fusion	Posterior/Posterior
Posterior Lumbar Interbody Fusion (PLIF)	Posterior/Anterior
Transforaminal Lumbar Interbody Fusion (TLIF)	Posterior/Anterior

ICD-10-PCS – Fusion Procedures

- Fusion procedures of the spine
- If multiple vertebral joints are fused, a separate procedure is coded for each vertebral joint that uses a different qualifier

<i>Section</i>	0	Medical and Surgical		
<i>Body System</i>	R	Upper Joints		
<i>Operation</i>	G	Fusion: Joining together portions of an articular body part rendering the articular body part immobile		
<i>Body Part</i>	<i>Approach</i>		<i>Device</i>	<i>Qualifier</i>
0 Occipital-cervical Joint	0 Open		7 Autologous Tissue Substitute	0 Anterior Approach, Anterior Column
1 Cervical Vertebral Joint	3 Percutaneous		A Interbody Fusion Device	1 Posterior Approach, Posterior Column
2 Cervical Vertebral Joints, 2 or more	4 Percutaneous Endoscopic		J Synthetic Substitute	J Posterior Approach, Anterior Column
4 Cervicothoracic Vertebral Joint			K Nonautologous Tissue Substitute	
6 Thoracic Vertebral Joint			Z No Device	
7 Thoracic Vertebral Joints, 2 to 7				
8 Thoracic Vertebral Joints, 8 or more				
A Thoracolumbar Vertebral Joint				

Spinal Anatomy 101 – Columns



Spinal Anatomy 101 – Columns

- Anterior column
 - Vertebral body
 - Disc

Spinal Anatomy 101 – Columns

- Posterior column
 - Pedicles
 - Laminae
 - Transverse processes
 - Facet joints
 - Spinous process

Qualifier: Approach to Spinal Column

- **Anterior** approach to **Anterior** Column (0) –
 - The anterior column is approached anteriorly
 - Entry through front of the body to perform a procedure on the body of the vertebra or disc

Qualifier: Approach to Spinal Column

- **Anterior** approach to **Anterior** Column (0) –
 - Example: ALIF – Anterior Lumbar Interbody Fusion
 - Incision is anterior, either transperitoneal or retroperitoneal
 - May involve vascular or general surgeon
 - Usually involves interbody fusion device
 - [ALIF Video](#)

Qualifier: Approach to Spinal Column

- **Anterior** approach to **Anterior** Column (0) –
 - The anterior column is approached anteriorly
 - Entry through front of the body to perform a procedure on the body of the vertebra or disc
 - Example: XLIF® – Extreme Lateral Interbody Fusion
 - Less invasive
 - May be done percutaneously or via a circular tube retractor using lateral approach
 - [XLIF Video](#)

Qualifier: Approach to Spinal Column

- **Posterior** approach to **Posterior** Column (1) –
 - The posterior column is approached posteriorly
 - Entry through the back of the body to perform a procedure on the vertebral foramen, spinous process, transverse processes, facets and/or lamina.

Qualifier: Approach to Spinal Column

- **Posterior** approach to **Posterior** Column (1) –
 - Example: Posterior Lumbar Fusion
 - Incision is posterior
 - Surgically mending lumbar spine bones along the side
 - Bone graft is placed along the side of the spine bones
 - Bone graft is **not** placed between vertebral bodies
 - [Posterior Spinal Fusion Video](#)

Qualifier: Approach to Spinal Column

- **Posterior** approach to **Anterior** column (J)
 - The anterior column is approached posteriorly
 - Entry through back of the body to perform a procedure on the body of the vertebra or disc

Qualifier: Approach to Spinal Column

- **Posterior** approach to **Anterior** column (J)
- Example: PLIF – Posterior Lumbar Interbody Fusion
 - Incision is (usually) midline in back
 - The anterior column is approached from the side
 - Interbody fusion device is placed between the vertebral bodies (anterior column) from either right or left side
- [PLIF Video](#)

Qualifier: Approach to Spinal Column

- **Posterior** approach to **Anterior** column (J)
 - Example: TLIF – Transforaminal Lumbar Interbody Fusion
 - Access posteriorly by cutting lamina on one side
 - One side of spine usually affected; less recovery time
 - Interbody fusion device is placed between the vertebral bodies (anterior column) from either right or left side
 - Bone graft placed along sides
 - [TLIF Video](#)

ICD-10-PCS – Fusion Procedures

- Discectomy with Fusion Procedures
 - Per AHA *Coding Clinic for ICD-10-CM/PCS*, Q2, 2014 the excision of the disc is reported separately.
 - Please note: a partial disc removal is the most commonly performed in preparation for a spinal fusion. However, if the discectomy was documented as a “total” discectomy it would be assigned to the root operation of Resection.

ICD-10-PCS Spinal Decompression

- Spinal decompression is the removal of pressure from the spinal cord. Assign a code for the surgery that is performed to relieve the pressure (Release). *<AHA, Coding Clinic, Q4, 2013>*

ICD-10-PCS Spinal Decompression

- Laminectomy/laminotomy
 - The objective of a decompressive laminectomy is to release pressure and free up the spinal nerve root. Therefore the appropriate root operation is “Release.” <AHA, Coding Clinic Q2, 2015>
 - Procedures to release the spinal cord are only coded once even if at more than one level because the individual levels are classified as a single body part.
 - Release, cervical spinal cord (PCS Table 00N)
 - Open decompressive laminectomy of C2-C7 → 00NW0ZZ

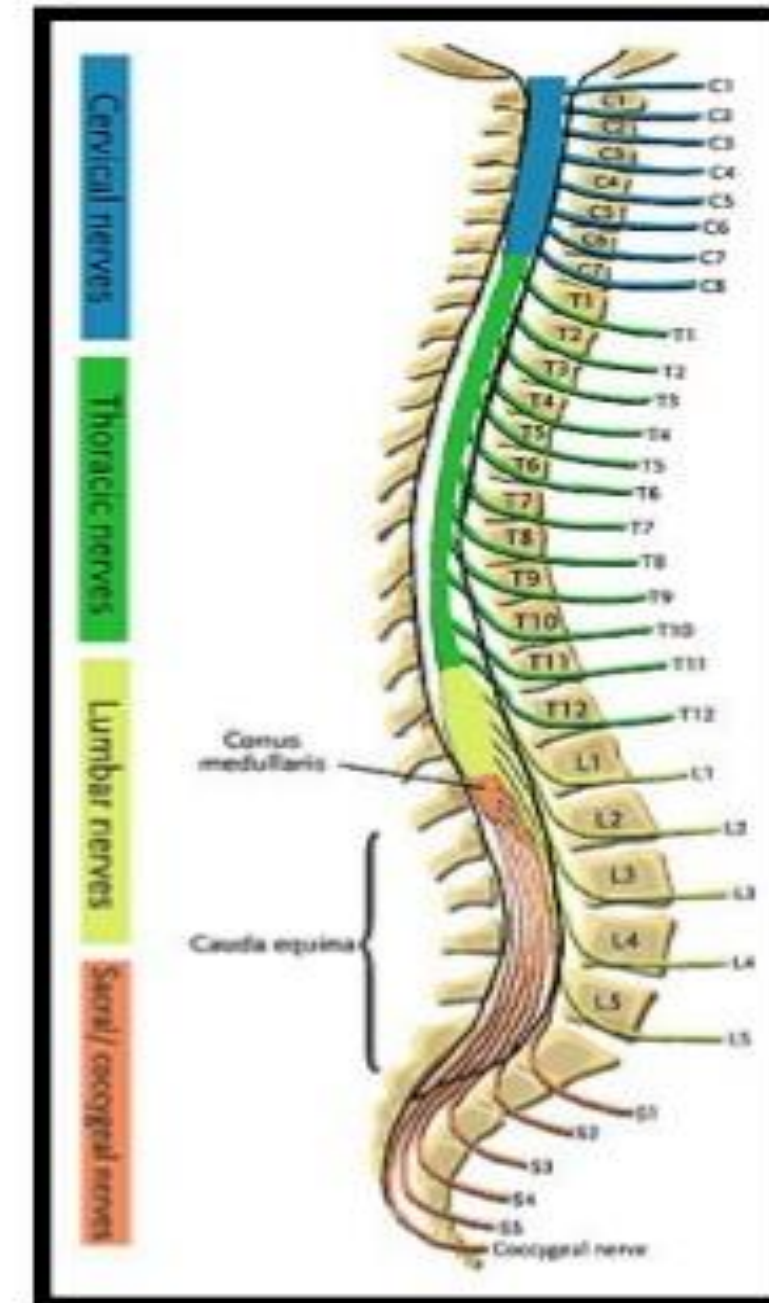
ICD-10-PCS Spinal Decompression

- Facetectomy -- Removing a portion of the facet(s) to relieve an impacted a nerve root in the spinal canal.
- Corpectomy – The vertebral body can be removed through an anterior incision to decompress a canal. The surgery involves removing part of the vertebra in order to decompress, or relieve pressure on, the spinal cord and/or spinal nerves.
- In the root operation Release, the body part value coded is the body part being freed and not the tissue being manipulated or cut to free the body part. <PCS guidelines>

ICD-10-PCS Spinal Decompression

Spinal Nerve

- **Spinal nerves:**
 1. **8 pairs of cervical spinal nerves**
 2. **12 pairs of thoracic spinal nerves**
 3. **5 pairs of lumbar spinal nerves.**
 4. **5 pairs of sacral spinal nerves**
 5. **1 pairs of coccyx spinal nerves.**



neuroscienceMizan

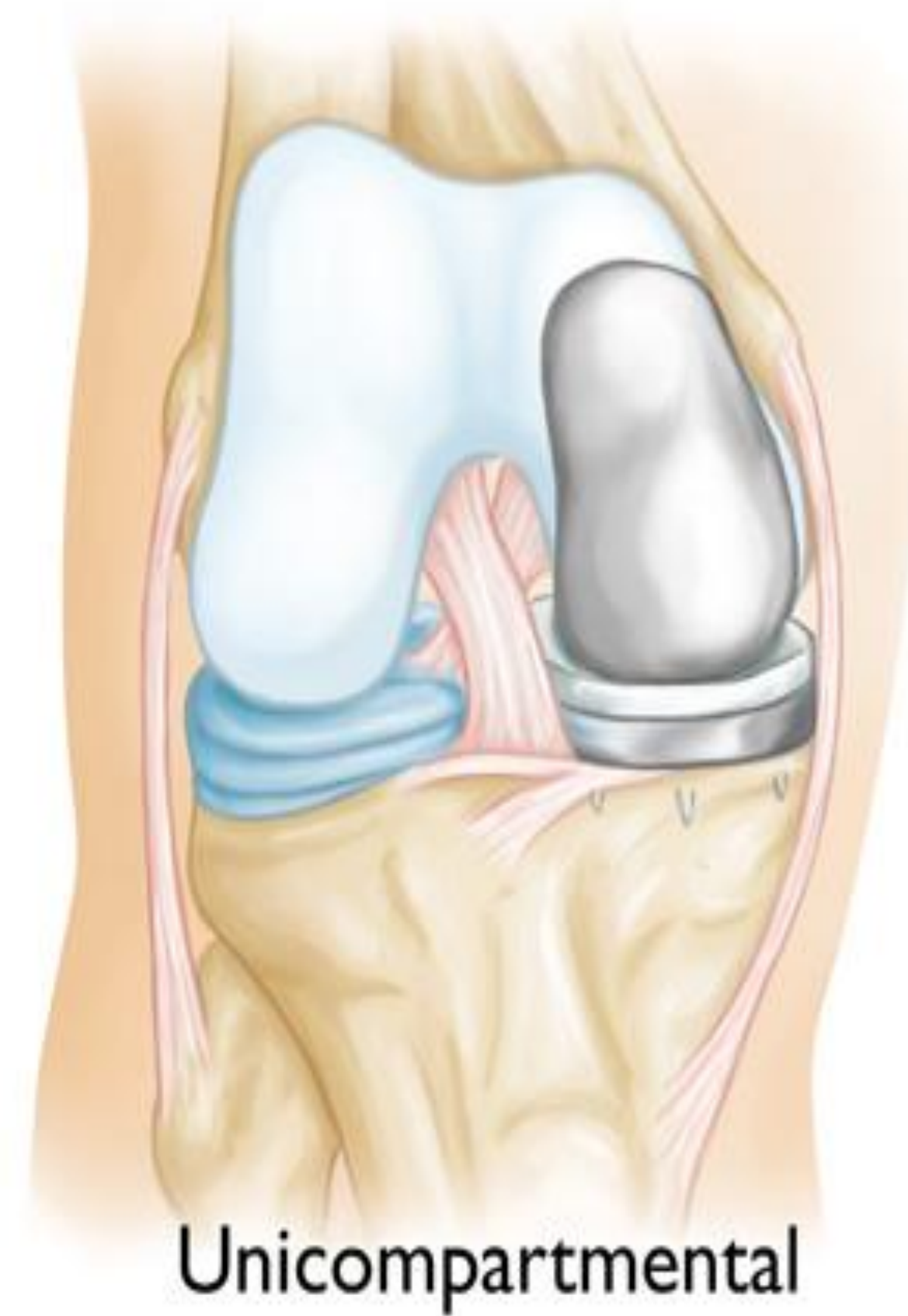
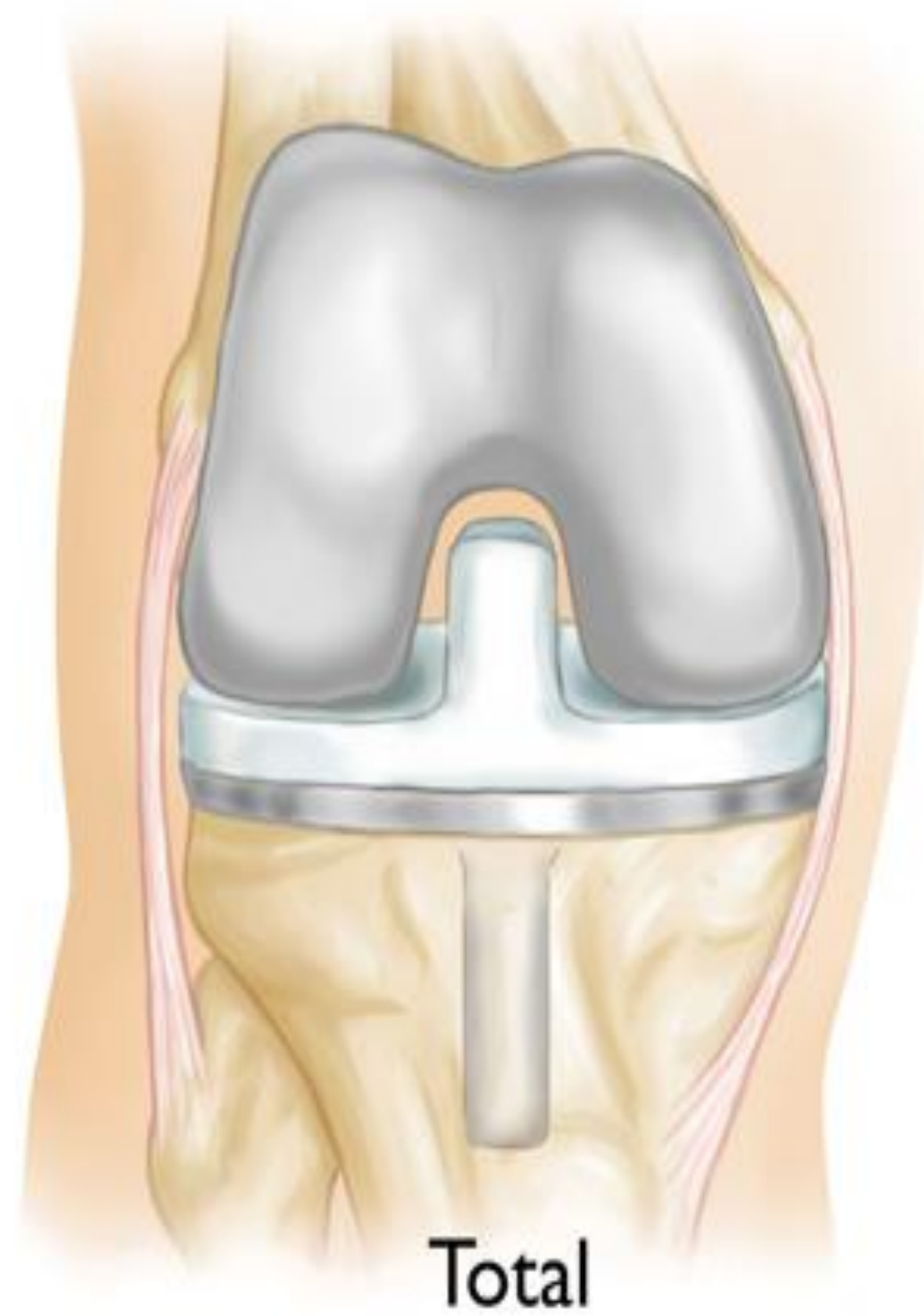
ICD-10-PCS Spinal Decompression

- Spinal Cord – PCS table 00N-
- Spinal Nerves – PCS table 01N-

ICD-10-PCS – Revision of Replacements

- “Revision” of previously placed prosthesis <AHA, Coding Clinic, Q2, 2015>
 - If the prosthesis is revised WITHOUT removing the components, the Root Operation is Revision.
 - If the prosthesis is removed and replaced with new components
 - Removal of old prosthesis – Root operation Removal
 - Re-insertion of new prosthesis – Root operation Replacement
 - **Example –**
 - **0SPC0JZ** Removal of synthetic substitute from right knee joint, open approach
 - **0SRC0J9** Replacement of right knee joint with synthetic substitute, cemented, open approach

Unicondylar Knee Replacement



PCS Table -OSP Removal

Added Body Part options
for the individual
“surfaces” for Synthetic
Substitute

<i>Section</i>	0	Medical and Surgical		
<i>Body System</i>	S	Lower Joints		
<i>Operation</i>	P	Removal: Taking out or off a device from a body part		
A Hip Joint, Acetabular Surface, Right	0 Open	J Synthetic Substitute	Z No Qualifier	
E Hip Joint, Acetabular Surface, Left	3 Percutaneous			
R Hip Joint, Femoral Surface, Right	4 Percutaneous Endoscopic			
S Hip Joint, Femoral Surface, Left				
T Knee Joint, Femoral Surface, Right				
U Knee Joint, Femoral Surface, Left				
V Knee Joint, Tibial Surface, Right				
W Knee Joint, Tibial Surface, Left				

PCS Table 0SR- Replacement

Added Device option for
“Unicondylar”
AKA “partial knee
replacement”

Section	0	Medical and Surgical		
Body System	S	Lower Joints		
Operation	R	Replacement: Putting in or on biological or synthetic material that physically takes the place and/or function of all or a portion of a body part		
C Knee Joint, Right			J Synthetic Substitute	9 Cemented
D Knee Joint, Left			L Synthetic Substitute, Unicondylar	A Uncemented
				Z No Qualifier

Revision Arthroplasty Challenges

A patient with a history of right total knee replacement and pain upon ambulation has an MRI which reveals questionable loosening of both the femoral and tibial components. A surgical encounter confirms a broken tibial component which was removed and the new component was implanted and cemented.

Revision or Replacement?

Revision Arthroplasty Challenges

A patient with a history of right total knee replacement and pain upon ambulation has an MRI which reveals questionable loosening of both the femoral and tibial components. A surgical encounter confirms a broken tibial component which was removed and the new component was implanted and cemented.

Removal: 0SPV0JZ

Replacement: 0SRV0KZ

Revision Arthroplasty Challenges

A patient with a history of right total knee replacement and pain upon ambulation has an MRI which reveals questionable loosening of both the femoral and tibial components. A surgical encounter confirms the MRI results for the tibial component. The joint is exposed, with no evidence of infection the component is re-cemented.

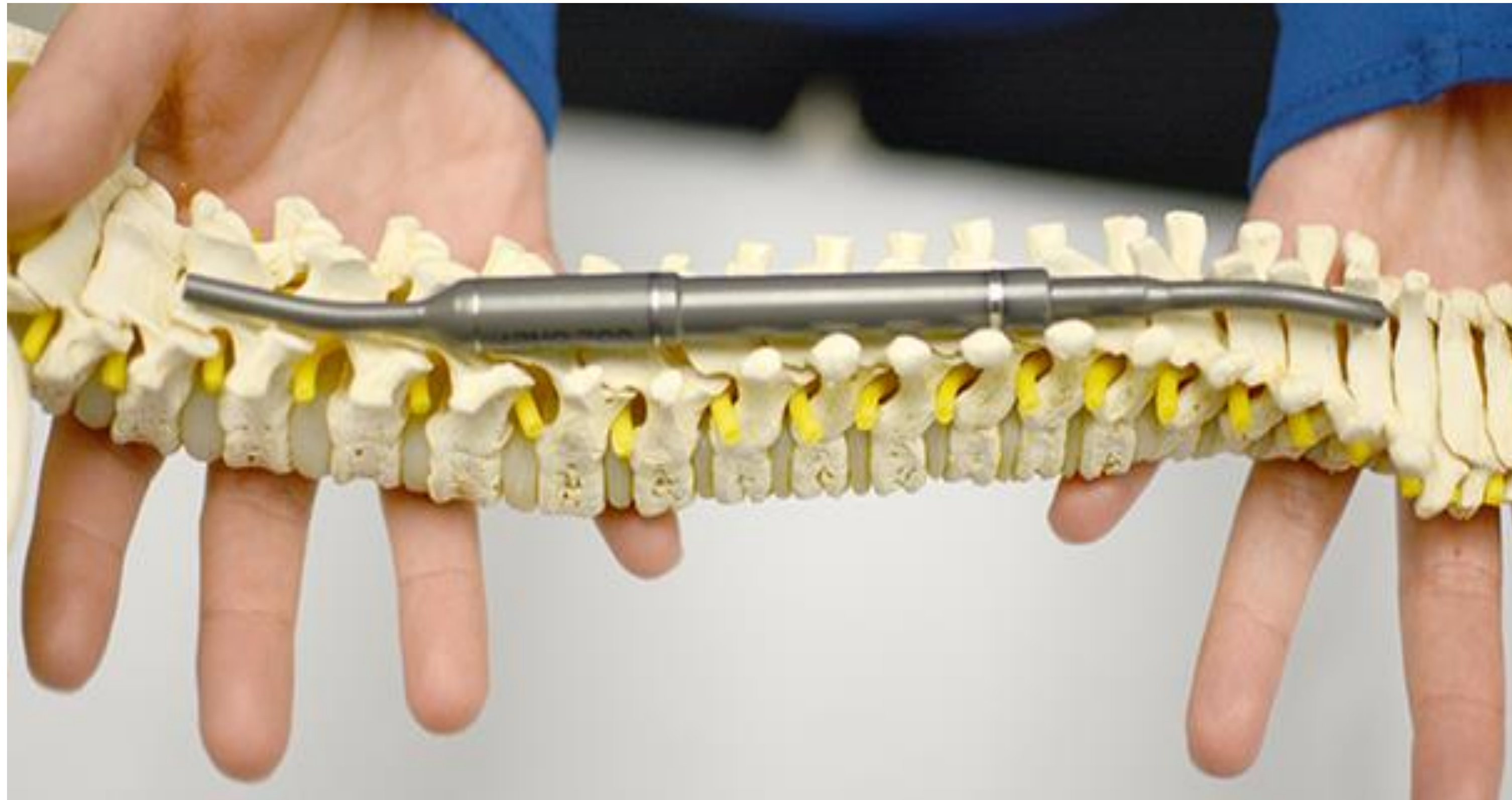
Revision or Replacement?

Revision Arthroplasty Challenges

A patient with a history of right total knee replacement and pain upon ambulation has an MRI which reveals questionable loosening of both the femoral and tibial components. A surgical encounter confirms the MRI results for the tibial component. The joint is exposed, with no evidence of infection the component is re-cemented.

- 0SWV0JZ - Revision of synthetic substitute in right knee joint, tibial surface, open approach

Spinal Magnetic Growth Rods



Source: cincinnatichildrens.org

PCS Table XNS - New Technologies

Section	X	New Technology		
Body System	N	Bones		
Operation	S	Reposition: Moving to its normal location, or other suitable location, all or a portion of a body part		
Body Part		Approach	Device / Substance / Technology	Qualifier
0 Lumbar Vertebra 3 Cervical Vertebra 4 Thoracic Vertebra		0 Open 4 Percutaneous Endoscopic	3 Magnetically Controlled Growth Rod(s)	2 New Technology Group 2

Obstetrical Perineal Lacerations

Degrees of Laceration

- First degree—Involving the perineal skin and its extension into the vagina as vaginal mucosa
- Second degree—Involving the perineal body and deeper tissues
- Third degree—Extending into the capsule and muscle of the anal sphincter
- Fourth degree—Extending through the sphincter and into the anal/rectal mucosa

Obstetrical Perineal Laceration Repairs

- Laceration repairs <AHA, *Coding Clinic*, Q1, 2016>
- First-degree tears involve injury to the outermost layer of the perineum and vaginal mucosa.
- PCS code 0HQ9XZZ

Obstetrical Perineal Laceration Repairs

- Laceration repairs <AHA, *Coding Clinic*, Q1, 2016>
 - Injury to the vaginal wall and perineal muscle, but do not extend down into the anal sphincter muscle.
 - PCS code 0KQM0ZZ.
 - If the root operations Excision, Repair or Inspection are performed on overlapping layers of the musculoskeletal system, the body part specifying the deepest layer is coded. <PCS Guidelines>
 - The deepest layer is the perineal muscles.

Obstetrical Perineal Laceration Repairs

- Laceration repairs (continued) <AHA, *Coding Clinic*, Q1, 2016>
- Third-degree tears extend to the anal sphincter, but the anal/rectal mucosa beneath the anal sphincter are intact.
 - Anal sphincter – PCS code 0DQR0ZZ
- Fourth-degree tears extend to the perineum, the anal sphincter complex (external anal sphincter and internal anal sphincter), and the rectal mucosa.
 - Rectum – PCS code 0DQP0ZZ

Obstetrical Perineal Laceration Repairs

- Laceration repairs
- Procedure code assignment can be assigned based off a “degree” documented? <AHA Coding Clinic for ICD-10, Q1 2013>
 - The provider does not have to specifically state the perineal muscle if documented as a 2nd degree perineal laceration which by definition is through the perineal muscle. <AHA, ICD-10-CM/PCS Coding Clinic, Q4, 2014>

- How would you code?
- The patient experiences an obstetric third-degree perineal laceration during a normal delivery.
- **Answer: 0DQR0ZZ**
- Repair anal sphincter, open approach, for the repair of a third-degree obstetric perineal laceration

- Third-degree obstetric perineal laceration rationale:
 - Overlapping layers of the musculoskeletal system? YES
- ICD-10-PCS Guideline B3.5 states:
 - “If the root operation Excision, Repair or Inspection is performed on overlapping layers of the musculoskeletal system, the body part specifying the deepest layer is coded.”
 - In this scenario the deepest layer is the anal sphincter muscle

Questions?



HEALTHCON