# Dr. Z's Medical Coding Series Vascular & Endovascular Surgery Coding Reference



By David B. Dunn, MD, FACS, CIRCC, CCVTC, COC, CCC, CCS, RCC & David R. Zielske, MD, CIRCC, CCVTC, COC, CCC, CCS, RCC

with Jeffery S. Majchrzak, BA, CIRCC, RCC

Eighteenth Edition



### **Table of Contents**

HOW TO USE THIS BOOK	1
CHAPTER 1: INTRODUCTION	3
CHAPTER 2: CODING BASICS	7
CHAPTER 3: PHYSICIAN PAYMENT BASICS	49
CHAPTER 4: HOSPITAL OUTPATIENT PROSPECTIVE PAYMENT SYSTEM	1 61
CHAPTER 5: BASIC ENDOVASCULAR SURGERY CODING RULES	69
CHAPTER 6: DIAGNOSTIC ANGIOGRAPHY CODING	81
Cervicocerebral Angiography	81
Cervicocerebral Arch Angiography	
Carotid Cervical Angiography	
Carotid Cerebral Angiography	96
Vertebral Angiography	101
External Carotid Angiography	106
Cervicocerebral Variations	110
Anatomic Variations	111
Descending Thoracic Aorta Angiography	115
Spinal Angiography	118
Internal Mammary Angiography	122
Bronchial Angiography	
Visceral Angiography	127
Celiac Artery Angiography	
Superior Mesenteric Artery Angiography	137
Inferior Mesenteric Artery Angiography	140
Renal Angiography	
Other Visceral Vasculature	
Upper Extremity Angiography	
Abdominal Aortography and Lower Extremity Angiography	
Abdominal Aortography and Run-off	
Pelvic Vasculature	
Diagnostic Dialysis Circuit Imaging	
VENOGRAPHY	
Central Venous Coding – Vena Cava	
Extremity Venous Coding	
Visceral Venous Coding	
Head and Neck Venous Coding	
Pulmonary Angiography	
THE PORTAL SYSTEM.	
CHAPTER 7: VASCULAR INTERVENTIONAL CODING	
VASCULAR ACCESS DEVICE PLACEMENT	
Non-Tunneled/Temporary Central Venous Access	
Tunneled/Permanent Central Venous Access	
Catheter Check	
Catheter Maintenance	218

-	THROMBOLYSIS AND OTHER INFUSION THERAPY	. 223
]	Percutaneous Thrombectomy	. 234
-	Franscatheter Embolization	. 242
1	Vascular Filter Placement	. 258
1	Venous Sampling	. 262
]	Percutaneous Transcatheter Renal Sympathetic Denervation	. 264
]	Balloon Angioplasty, Non-Lower Extremity	. 266
1	Atherectomy, Suprainguinal	. 276
	Vascular Stent Placement, Non-Lower Extremity	
	LOWER EXTREMITY ENDOVASCULAR REVASCULARIZATION.	
]	Neurovascular Interventional Procedures	. 310
-	Fransjugular Intrahepatic Portosystemic Shunt (TIPS)	. 331
]	Dialysis Circuit Interventions	. 339
]	ntravascular Ultrasound	. 353
]	Endovascular Thoracic and Abdominal Aortic Endografts	. 356
]	Endovascular Iliac Endografts	. 379
<b>C</b> ]	HAPTER 8: OPEN VASCULAR SURGERY CODING	. 391
	THORACIC AORTIC ANEURYSM/DISSECTION	
	Great Vessels and Heart Procedures	
	AORTIC ANOMALIES	
	Procedures of the Soft Tissues of the Neck and Thorax	
	EMBOLECTOMY/THROMBECTOMY	
	VENOUS RECONSTRUCTION  DIRECT REPAIR OR EXCISION OF ANEURYSM OR PSEUDOANEURYSM	
	Repair of Arteriovenous Fistula	
	REPAIR OF BLOOD VESSELS	
	THROMBOENDARTERECTOMY	
	Angioscopy	
	Sypass Grafts, Graft Harvesting, Composite Grafts, and Adjuvant Techniques	
	Arterial Transposition	
	Exploration/Revision/Excision.	
	Saphenous Vein Ablation and Other Treatment of Lower Extremity Varicose Veins	
	PORTAL DECOMPRESSION PROCEDURES	
	ENDOSCOPY	
	Decompressive Fasciotomy	
	Lower Extremity Amputations	
	HEMODIALYSIS ACCESS.	
	Extracorporeal Membrane Oxygenation.	
	LIGATION	
<b>C</b> ]	HAPTER 9: ELECTROPHYSIOLOGY	. 513
,	Fransvenous Pacemakers	513
	LEADLESS PACEMAKERS	
	MPLANTABLE CARDIAC RHYTHM MONITORS.	
	Permanent Implantable Defibrillators	
	SUBCUTANEOUS IMPLANTABLE DEFIBRILLATOR AND IMPLANTABLE DEFIBRILLATOR WITH SUBSTERNAL LEAD.	
	NTRACARDIAC ISCHEMIA MONITOR	
	Wireless Cardiac Stimulation System for Left Ventricular Pacing	
	Cardiac Contractility Modulation System.	
	Permanent Aortic Counterpulsation Ventricular Assist Device	
	Franscutaneous Pacing and Cardioversion	
	OTHER ELECTROPHYSIOLOGY PROCEDURES	
	External Cardiovascular Monitors	

Implantable Hemodynamic Monitors.	
Cardiac Device Evaluations	
Evaluation of Pacemaker	
Evaluation of ICD	
Other Device Evaluations	578
CHAPTER 10: OTHER INTERVENTIONAL PROCEDURAL CODING	581
Non-Tunneled Peritoneal Catheter Placement	581
Tunneled Peritoneal Catheter Placement	
Injection/Fibrin Sheath Disruption of Peritoneal Dialysis Catheter	
Thoracentesis	
Indwelling Chest Tube Placement	
TUNNELED CHEST TUBE FOR EFFUSION.	
CHAPTER 11: NON-INVASIVE VASCULAR DIAGNOSTIC STUDIES	
Overview	
Arterial Studies	
Transcranial Doppler/Quantitative Carotid Intima Media	
Extracranial Cerebrovascular Duplex	
Non-Invasive Vascular Studies of the Upper Extremity Arteries	
Upper Extremity Arterial Segmental Physiologic Evaluation	
Upper Extremity Arterial Duplex	
Non-Invasive Vascular Studies of the Lower Extremity Arteries	
Lower Extremity Arterial Segmental Physiologic Evaluation	
Lower Extremity Arterial Duplex	
Non-Invasive Vascular Studies of the Aoria	
PENILE VESSEL ASSESSMENT	
Venous System	
Extremity Venous Duplex.	
VEIN MAPPING	
Non-Invasive Vascular Studies of Arterial Venous Hemodialysis Access Sites	
CHAPTER 12: COMPUTED TOMOGRAPHIC ANGIOGRAPHY	633
CTA of the Chest	635
CTA of the Abdomen	
CTA OF THE PELVIS	639
CTA OF THE ABDOMEN AND PELVIS	641
CTA of the Upper and Lower Extremities.	
CTA of Abdominal Aorta and Bilateral Iliofemoral Lower Extremity Run-Off	645
CTA of the Cerebrovascular System.	
CORONARY COMPUTED TOMOGRAPHIC ANGIOGRAPHY	
Hybrid CT	654
CHAPTER 13: MAGNETIC RESONANCE ANGIOGRAPHY	657
MRA OF THE CHEST	
MRA OF THE ABDOMEN	
MRA OF THE PELVIS	
MRA OF THE SPINE	
MRA OF THE UPPER AND LOWER EXTREMITIES	
MRA OF THE CEREBROVASCULAR SYSTEM.	
Cardiac Magnetic Resonance Imaging	669

APPENDIX A - PROCEDURES THAT MUST BE PERFORMED SELECTIVELY	673
APPENDIX B - ADD-ON PROCEDURE CODES	674
APPENDIX C - INPATIENT-ONLY PROCEDURE CODES (STATUS INDICATOR C)	675
APPENDIX D - UNLISTED PROCEDURE CODES	676
APPENDIX E - DEVICE CODES	678
APPENDIX F - IMPORTANT LINKS	680
APPENDIX G - MEDICARE COMBINATION HCPCS LEVEL II CODES FOR ASC BILLING ONLY	682
APPENDIX H - EXCERPTS - NCCI POLICY MANUAL	687
APPENDIX I - CHARGE SHEETS	717
APPENDIX J - ANATOMICAL CHARTS	731
SUBJECT INDEX	759
CODE INDEX	767

### **Celiac Artery Angiography**

### PROCEDURE:

The celiac artery is the first of the abdominal visceral arteries to arise anteriorly off the aorta. It arises at the T-12 level and supplies the stomach, proximal duodenum, distal esophagus, spleen, and liver. The celiac artery normally trifurcates into the left gastric, splenic, and common hepatic arteries. The left gastric artery courses superiorly, the splenic artery towards the left, and the common hepatic artery towards the right. The common hepatic artery divides into the proper hepatic artery (supplying the liver) and the gastroduodenal artery (GDA), which supplies the lower portion of the stometh, duod lum, and pancreatic head. The GDA gives se to the pancreaticoduodenal arcade, which used as an arte ry supplies the spleen (via sple rsal pancreatic branches). The left gastric artery supplies the proximal stomac the left lobe of the liver. The inferior phrenic artery can arise from the left gastric artery. There are numerous ways that blood can be re-routed to the visceral organs when one channel is interrupted. This allows embolization procedures to be performed safely and allows collateral flow in patients mmon in the visceral vasculature, with arterial occlusive diseas nital variations are very o so close attention to physicia ing these exams. There are at least thirteen variations of he atic art anator

### CLINICAL INDICATIONS:

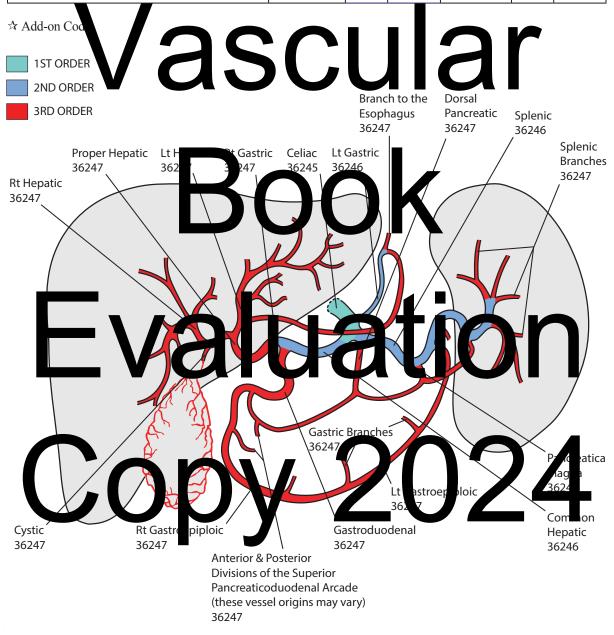
The celiac artery is often evaluated in cases of GI bleeding (gastric or duodenal ulcer, Mallory-Weiss tear of the distal esophagus), abdominal trauma, pancreatitis, hepatic or pancreatic neophism, thromboembolism, and partial hypertension.

### THE THE END CATHOTIR ELECTIVITY OR NORMAL

ARTERY	CODE	APC	WORK RVU	ARTERY	CODE	APC	WORK RVU
Celiac	36245	N/A	4.65	Proper hepatic	36247	N/A	6.04
Left	36246	N/A	5.02	Right	35	N/A	04
Sylenic	36 4	N/A	5.0	Left hepatic	36247	N/A	04
Pa creatica magna	36 47	/A	6 4	Right gag &	36247	N/	04
Dol I paner dic	36 7	/A	.04	Righ astroeniplo	247	N/A	04
Common hepatic	36 46	N/A_	5.02	Gastroduodenal	36247	N/A	6.04

If the vessels selected arise from the same vascular trunk, only the highest order selective catheterization is reported, and code 36248 is reported for the selective catheterization of the other branches.

PROCEDURE DESCRIPTION	PROC CODE	APC	WORK RVU	S&I CODE	APC	WORK RVU
Celiac angiogram (selective) with or without aortogram	36245	N/A	4.65	75726	5184	2.05
Any selective branch as the initial exam	36246, 36247	N/A N/A	5.02 6.04	75726	5184	2.05
Any selective branch if additional imaging is done after the basic celiac exam	36246, 36247, or 36248	N/A N/A N/A	5.02 6.04 1.01	<b>☆</b> 75774	N/A	1.01



### **CELIAC ARTERY - DETAILED ANATOMY**

### CODING INSTRUCTIONS:



- 1. Celiac artery angiography is often performed at the same time as evaluations of the superior mesenteric and inferior mesenteric arteries.
- 2. Report code 75774 if additional selective catheter placement and imaging is performed after a basic celiac angiogram has been performed.
- 3. Always consider the many anatomic variations that exist when coding the visceral vasculature.
- 4. Hepatic branches are named for segments of the liver as seen on a CT scan. They are labeled segment 1-8, will subsegments labeled "a" or "b". These are commonly described during TACE (coemoer polizy to ) and TACE (radio bolization with Y-90 passed at All branches selected are allective catheter becomes described by code 6247 for the fifthest selection and by code 3/248 for each additional elective outletter placement focus into
- 5. A replaced right hepatic artery arising as a second order selective vessel off the SMA, a direct origin of the left gastric artery off the aorta, a left hepatic artery arising off the left gastric artery, and a common or single trunk off the aorta supplying the celiac and superior mesenteric arteries are all common anatomial variables of the visceral arteries.
- 6. Do not code the <u>non-sele tive</u> ac og Im (75 2: when er led in conjunction with a <u>selective</u> visceral angiogram (5726).
- 7. Do not report the non-selective catheter placement code 36200 when a selective catheter placement has been performed (36245, 36246, or 36247) via the same access site.
- 8. It is not report code 75726 unless the catheter has been selectively placed in the celiac artery or one of its branches. Co. 275. 6 is a selective making and de.
- 9. If the GDA is see ted od impreed to enduate for see as an atteriation with force on any artery bypass surgery (or to evaluate an existing oypass grant) during a cardiac cameterization, report the appropriate cardiac catheterization code 93455, 93457, 93459, 93461, or 93564.
- 10. Codo 75726 has an MUE of three.

### EXMPLE(S

1) to ever-old man with light restates for possible embolization. Dia nostic Ingio aphy is period to determine the patient of a car of the formula and the patient of a car of the propose of embodization. Vial and the propose of portal venous perfusion evaluation. This shows normal splenic arterial anatomy and a widely patent splenic and portal vein (36248, 75887). The left gastric artery is selected and imaged, showing no collateral flow to the left lobe of the liver (36248, 75774). The gastroduodenal artery is selected and imaged with normal findings (36247, 75774). This vessel can be coil embolized prior to hepatic chemoinfusion or chemo-embolization. The right hepatic (36248, 75774) and left hepatic (36248, 75774) arteries are also selected and imaged, showing normal flow dynamics and anatomy as well as a tumor in the right lobe. The cystic artery to the gallbladder is present and must be avoided during embolization.

Note: The celiac selective catheter placement code is included in the more selective catheter placements in the left and right hepatic arteries. To code for S&I codes, images must be obtained with purpose (medical necessity) and must be described and documented in the permanent medical record.

- 2) Patient with upper gastrointestinal bleeding after vomiting. Via a transfemoral approach, the celiac artery is selected and imaged (75726). The gastroduodenal artery is selected and imaged (36247, 75774). No bleeding is seen in the duodenum. The left gastric is not seen off the celiac. Aortogram is performed (no code), showing the left gastric arising as a separate vessel off the aorta. This is selected and imaged (36245-59, 75726-59), showing a hypervascular region with active bleeding at the gastroesophageal junction due to a Mallory-Weiss tear. This is applicated with gelfoam (37244). Follow-up angiography (burgled) shows cessation of bleeding.
- 3) Patient with leeding dudienal oper it encosor y. What ansfer or a roul, a content of placed in the celiac artery (36, 45) and Stander 45-55). The imaging per med 75765, 75 20-20. Letive bleeding is seen in the region of the deader. A micro atheor is adversed to be a steries and esterior superior pancreatico-duodenal arteries of the celiac artery (add 36247, 36248; delete 36245), and embolization with microcoils is performed (37244). Next, the anterior and posterior divisions of the inferior pancreatico-duodenal arteries arising off the SMA are selected and embolized [add 36247-59 and 36248 (embolization is included, as one surgical site), delete 36245 by. The w-up angiography from all for vessels shows resolution of bleeding (bundled).

### REFERENCES:

Clinical Examples in Radiology, Summer 08:1-3, Fall 13:2-3&5, Summer 15:2, Summer 17:11, Summer 18:2, Winter 18:11, Spring 19:2, Fall 21:16, Winter 23:8

CPT Assistant Fall 93:11, Aug 96:1, Sep 98:3, Oct 00:4, Jan 01:14, Sep 22:17

CPT Changes: And Insider's New 014

SIR Interventional Assistance County Sep 2 (Guille 2019, process 4 1-52-19)

SIR, IR Quarterly, Fall 18:33

## Copy 2024

### **Arterial Transposition**

### PROCEDURE:

These procedures are most commonly performed for reconstruction of the supra-aortic trunks, and the vertebrobasilar system, which carry blood to the head and upper extremities. Stenosis of one of these vessels may result in symptoms in the hemispheric (carotid) distribution, vertebrobasilar ischemia (e.g., alternating hemiparesis, drop attacks, loss of vision, etc.), or upper extremity ischemia. The symptoms may be from obstruction of flow, plaque embolization, or both. Benefits of transpositions include only one anastomosis versus two with a typical bypass procedure, excellent tency ra s, avoidance of prosthetic grafts, and exclusion of the diseased segment. The approach bral artery train pos lized to ensure essel enough length. nspo s also isolated. sion An appropriate sized artenowny is made in the runsposment is created after application of clamps. Clamping of the carotid artery, if the contralateral carotid is occluded, increases risks of brain ischemia and may prompt transposition to the subclavian artery instead. New endovascular treatments of thoracic aneurysms may involve coverage of the left subclavian artery origin, whi e addressed by an open succlavian to carotid transposition or n may with thoracic branched endo sceral vessels to an infrarenal 3E). plan 101 aortic prosthetic graft is per at I vascular distributions and to rmed t ntain to the treat ischemia. This is acco e where the vessel origin is nnig dissected and a button of surrounding aortic tissue is also cut. A side biting clamp is applied to the prosthesis, an aortotomy matching the size of the button is made, and the vessel is attached with an end-to-side anastomosis.



SUBCLAVIAN TO CAROTID TRANSPOSITION

Symptomatic vertebral artery stenosis/occlusion treated with vertebral to carotid or subclavian transposition. Symptomatic common carotid stenosis/occlusion at the origin with the normal distal carotid artery treated with common carotid to subclavian transposition. Symptomatic proximal subclavian artery stenosis/occlusion treated with prevertebral subclavian artery to common carotid artery transposition. Other indications include coverage of the left subclavian artery origin with an endograft and reimplantation of visceral vessels to an infrarenal aortic prosthesis for maintenance of flow to viscera or to alleviate ischemia.

### CODES:

PROCEDURE DESCRIPTION	(DE	ASSISTANT AT SIRGERY	GLOBAL SURGIRY	SURGEO		WORK RVU
Open subclavian carotic retervitransposition performed in conjunction with endovascular repair of descending thoracic aorta, by neck incision, unilateral	<b>◆</b> 3 289	A OWe	00	Paid	N/A	15.92
Transposition and/or reimplartion; vertebral to carotid artery	•3 591	Allowed	90 day	Paid with Jocumentation	N/A	18.41
Transposition and/or reimplartion; vertebral to subclavian arte	<b>•3.</b> 93	All we	9 day	Paid with ocumentation	N/A	15.73
Transposition and/or reimplantation; subclavian to carotid artery	<b>*</b> 35694	Allowed	90 days	Paid with Documentation	N/A	19.28
Transposition and/or reimplantation, and the subclavian artery	<b>◆</b> 35695	Allowed	90 days	Paid with Desumentation	N/A	20.06
Reir plantation, visceral artery to infra pulsartic posthers, such arter (List separately in a dition code or primary proc (Le)	<b>4.</b> ◆35 97	Allowed		Paid	N/A	3.00

### Add-on Code

ZZZ = The code is related to another service and is always included in the global period of the other service.

### CO ING NSTRUCTIONS

- 1. Report code: 3889 for a belavior to ear tid artery transposition <u>during</u> end vascular requir of a second light racin line ways.
- 2. Do not report code 35694 for subclavian to carotid artery transposition during endovascular repair of descending thoracic aneurysm. Report code 33889 instead. Do not report codes 33889 and 35694 together.
- 3. Report code 35691 for vertebral to carotid artery transposition.
- 4. Report code 35693 vertebral to subclavian artery transposition.

Inpatient-Only Procedure

- 5. Report code 35694 for subclavian to carotid artery transposition.
- 6. Report code 35695 for carotid to subclavian artery transposition.
- 7. Add-on code 35697 is only reported for implantation of vessels into an <u>infrarenal</u> aortic prosthetic graft.
- 8. Do not report code 35697 with 33877 (repair of thoracoabdominal aortic aneurysm with graft), as it is included.
- 9. Repairs for congenital transposition of the great vessels are in the code range 33770-33781.
- 10. Do not calle for completioning is any by.
- 11. Procedures by establining calized a floor and out low are included.

### EXAMPLE(S):

1) A patient with a descending thoracic aortic aneurysm presents for endovascular repair. A right femoral cortic access achieved (36200). The endograft is deployed, excluding the cutdown (34812) is performed w aneurysm, which is immediately o the <u>origin</u> of the <u>left subcla</u> an artery. This requires the endograft ndiacen raclavicular incision is made, and to cover the subclavian origin to the common carotid and proxin ontrolled. The proximal left subl left su an arte clavian artery is transected, an narinization. The subclavian is mobilized and is able to reach the common carotid without undue tension. The common carotid is clamped, an arteriotomy is made, and an end-to-side anastomosis is performed. The clamps are released, reestablishing flow to the left upper extremity (33889).

Note The same transposition during arrope (not indovember) their is repositive than \$5694.

- 2) An elective repair Cab cm arrare at a dominal actic at aurys a is performed with a postfactic tutal graft (3508). Upon release of the aortic clamps, the descending and sigmoid colon do not reperfuse as expected, with a resulting "dusky" appearance. A sterile intraoperative Doppler reveals decreased pulsations of the bowel. It is decided to reattach the IMA to prevent colonic ischemia. A button of aortic tissue is cut around the origin of the IMA, the posthetic graft is again clamped, and a punch is used to create an aortic patrology matching the IMA buff. This is see a ring acceptable, and a performance fall clamps, the allors appearance improves damnically (35.97).
- 3) A 75-year-old female preser is with vertebrasilar symptoms. A work-up includes an angiogram, which reveals occlusion of the proximal left vertebrasilarity and a normal left common carotid artery at its origin from the aorta, as well as the remainder of the carotid artery. At surgery, a supraclavicular incision is made, and the proximal vertebral artery is exposed between the sternocleidomastoid muscle bellies. The sympathetic ganglion is carefully preserved. Heparinization is performed, and the vertebral artery is mobilized and then transected with double ligation of the remaining proximal stump. The common carotid artery transposition site is exposed and clamped. A punch arteriotomy is made in the common carotid artery, and the vertebral artery is transposed to the carotid artery for creation of an end-to-side anastomosis. The clamps are released, and a

REFERENCES:

CPT Assistant, Jul 06:7

CPT Changes: An Insider's View 2004, 2006

## Vascular Book Evaluation Copy 2024

### Appendix B - Add-On Procedure Codes

33225	34808	35683	36907	37247	93573
33277	34812	35685	36908	37249	93574
33866	34813	35686	36909	37252	93575
33884	34820	35697	37185	37253	93584
33904	34833	35700	37186	49435	93585
3398 <del>7</del>	<del>2</del> 4834	36218	37222	61641	93586
34709	353	00.97	3 223	61	3587
34711	357	Sc. 78	31232	6/001	93588
34713	35400	Juz48	37255	75174	99153
34714	35500	36474	37234	76937	99157
34715	35572	36476	37235	77001	0076T
34716	35687	364		92998	G0278
34717	35682	36 83	3723	93569	

# Evaluation Copy 2024

### Dr. Z's Medical Coding Series Vascular & Endovascular Surgery Coding Reference



David B. Dunn, MD

Code more accurately
Avoid coding compliance problems
Ensure proper reimbursement

An illustrated, easy-to-use, and practical reference for medical coders, billers, and clinicians involved with vascular and endovascular surgery.

Read about other ZHealth Publishing medical coding reference materials at www.zhealthpublishing.com