

Interventional Cardiovascular Coding: Peripherals

Angioplasty
Atherectomy
Stent Placement

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Peripheral Interventions Agenda

- Lower Extremity Endovascular Revascularization
- Non-Lower Extremity Angioplasty, Atherectomy and Stent Placement

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Lower Extremity Endovascular Revascularization

- CPT® codes 37220-37235 describe the use of endovascular techniques for lower extremity revascularization
- The endovascular techniques described by these codes include angioplasty, atherectomy and stent placement
- Angioplasty is included in all these codes
- The procedures may be performed using percutaneous and/or open techniques
- The clinical indication is treatment of occlusive vascular disease
- Separately reportable procedures include thrombolysis (37201, 75896), thrombectomy (37184, 37185, 37186) and embolization procedures (37204, 75894, 75898)

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Lower Extremity Endovascular Revascularization

- Angioplasty utilizes a balloon to dilate a “hemodynamically significant” vessel stenosis. This includes use of a compliant or non-compliant balloon, a cryoplasty balloon or a cutting balloon
- Atherectomy is performed utilizing photoablation (laser), rotational (Rotoblater, Diamondback Orbital) or directional cutting (Silver Hawk) devices
- Stent placement utilizes bare metal, drug-eluting, balloon-expandable, self-expanding or covered stents to effectively treat a stenosis

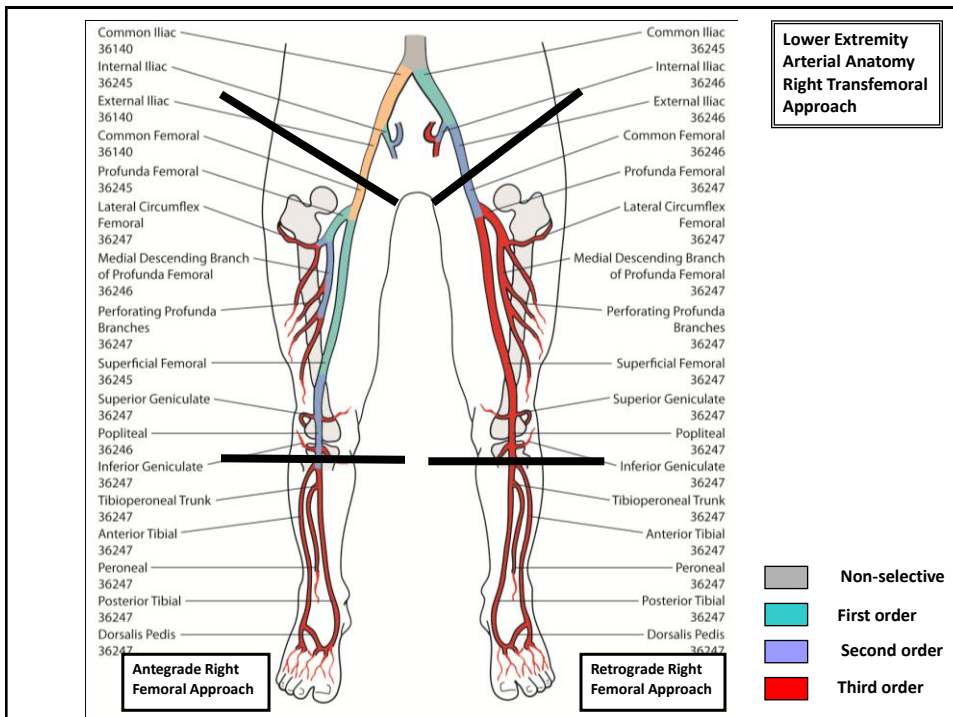
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Lower Extremity Endovascular Revascularization

- These codes are specific for 3 distinct lower extremity vascular territories: the iliac, femoral/popliteal and tibial/peroneal
- There are 3 separately billable arteries in the iliac territory: the common, external and internal iliac arteries
- There is only 1 separately billable artery in the femoral/popliteal territory. This includes the common femoral, superficial femoral, profunda femoral and popliteal arteries treated as a single vessel for coding purposes
- There are 3 separately billable arteries below the knee: the peroneal, anterior tibial (which includes the dorsalis pedis artery) and the posterior tibial (which includes the medial malleolar artery). The tibial/peroneal trunk is considered part of a peroneal and/or posterior tibial distal intervention.

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Lower Extremity Endovascular Revascularization

- Codes 37220-37235 are applicable to both open or percutaneous approach and include closure of the open or percutaneous access site with stitches, pressure, or device placement (do not bill G0269)
- These codes include conscious sedation, vascular access, all catheter placements in the same vascular family the intervention is performed in, and work involved with crossing the lesion (including use of specialty guidewires, subintimal recanalization, radiofrequency or ultrasonic vibration wires/catheters, etc.)
- They also include imaging related to the entire procedure (no S&I code), use of an embolic protection device, angioplasty (if done), and closure device angiography
- Atherectomy bundling for codes 37220-37235 only applies to **infra**-inguinal arteries. Use Category III code 0238T for separate supra-inguinal iliac artery atherectomy

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Lower Extremity Endovascular Revascularization

- Diagnostic angiography IS separately coded at the time of these interventions if:
 - There has not been a prior catheter based angiogram and a complete study is performed **and the decision for intervention is based on this angiographic study**
 - There is a prior study, but
 - There is change in clinical status since prior study
 - The prior study was inadequate for visualization of the area of concern
 - There is change in the clinical status during the intervention that requires imaging outside the area treated
- Diagnostic angiography IS NOT separately coded at the time of these interventions if:
 - The angiography is included in the interventional procedural code description
 - Performed for vessel measurement and sizing, lesion localization, roadmapping, and consists of contrast injections and imaging relating to guidance necessary to perform the intervention
 - Follow-up after angioplasty, atherectomy, stent placement, thrombectomy, etc.

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Lower Extremity Endovascular Revascularization

- Code 1 intervention per vessel treated (the entire femoral/popliteal territory is considered a single vessel)
- Code the highest level of intervention in that territory as the “initial” intervention. Other vessel interventions in the same territory are coded with “additional” interventional codes. (The femoral/popliteal territory does not have initial as it is only one vessel)
- All interventions within a single vessel are always coded with a single interventional code (except iliac atherectomy)
- Code each territory separately. Use the “initial” code for the highest level intervention in each iliac and tibial/peroneal territory. These are unilateral codes
- Use 59 to modify interventions in the same territory but in the opposite leg. Modifier 50 may be appropriate. Discuss with your payer

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Lower Extremity Endovascular Revascularization

- Codes 37220-37235 describe either angioplasty alone, atherectomy w or w/o angioplasty, stent placement w or w/o angioplasty and stent placement and atherectomy w of w/o angioplasty
- The femoral/popliteal and tibial/peroneal territory codes incorporate atherectomy procedures. The iliac territory does not
- The iliac territory codes only describe angioplasty and stent placement w or w/o angioplasty. Iliac atherectomy is additionally coded per vessel treated with Category III code 0238T

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Lower Extremity Endovascular Revascularization

- A maximum of 1 initial and 2 additional interventions can be performed in a unilateral iliac system, 1 intervention in the femoral/popliteal system, and 1 initial and 2 additional interventions in the tibial/peroneal system
- “Bridging” lesions are coded as a single vessel intervention, even if the lesion is bridging into another arterial territory
- The coding is built on an increasing hierarchy of complex interventions performed. Stent placement with atherectomy supersedes stent placement or atherectomy alone, which supersedes angioplasty alone. Atherectomy supersedes stent placement in the tibial/peroneal vessels.
- All interventions include an angioplasty if done
- There are 4 iliac, 4 femoral/popliteal and 8 tibial/peroneal artery endovascular revascularization codes

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Iliac Artery Endovascular Revascularization

- 37220 – Iliac angioplasty, initial vessel
- 37221 – Iliac stent, initial vessel
- 37222 – Iliac angioplasty, additional vessel
- 37223 – Iliac stent, additional vessel
- 0238T – Iliac atherectomy, each vessel, (bill separately)
 - Use 1 initial vessel and up to 2 additional vessel interventions if done. Use 59 modifier for an initial intervention in the contralateral iliac arteries

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Femoral/Popliteal Endovascular Revascularization

- 37224 – Fem/pop system angioplasty
- 37225 – Fem/pop system atherectomy
- 37226 – Fem/pop system stent placement
- 37227 – Fem/pop system stent placement **with** atherectomy
 - Only submit 1 of the above codes per extremity. Use 59 modifier for an intervention in the contralateral femoral/popliteal arteries

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Tibial/Peroneal Artery Endovascular Revascularization

- 37228 – Tibial/peroneal angioplasty, initial vessel
- 37229 – Tibial/peroneal atherectomy, initial vessel
- 37230 – Tibial/peroneal stent placement, initial vessel
- 37231 – Tibial/peroneal stent placement **with** atherectomy
 - Only submit 1 of the above codes per extremity. Use 59 modifier for an initial intervention in the contralateral tibial/peroneal arteries

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Tibial/Peroneal Artery Endovascular Revascularization

- 37232 – Tibial/peroneal angioplasty, each add. vessel
- 37233 – Tibial/peroneal atherectomy, each add. vessel
- 37234 – Tibial/peroneal stent placement, each add. vessel
- 37235 – Tibial/peroneal stent placement **and** atherectomy, each additional vessel
 - List up to 2 additional codes separately in addition to the initial vessel code per extremity. Use 59 modifier for an initial intervention in the contralateral tibial/peroneal arteries

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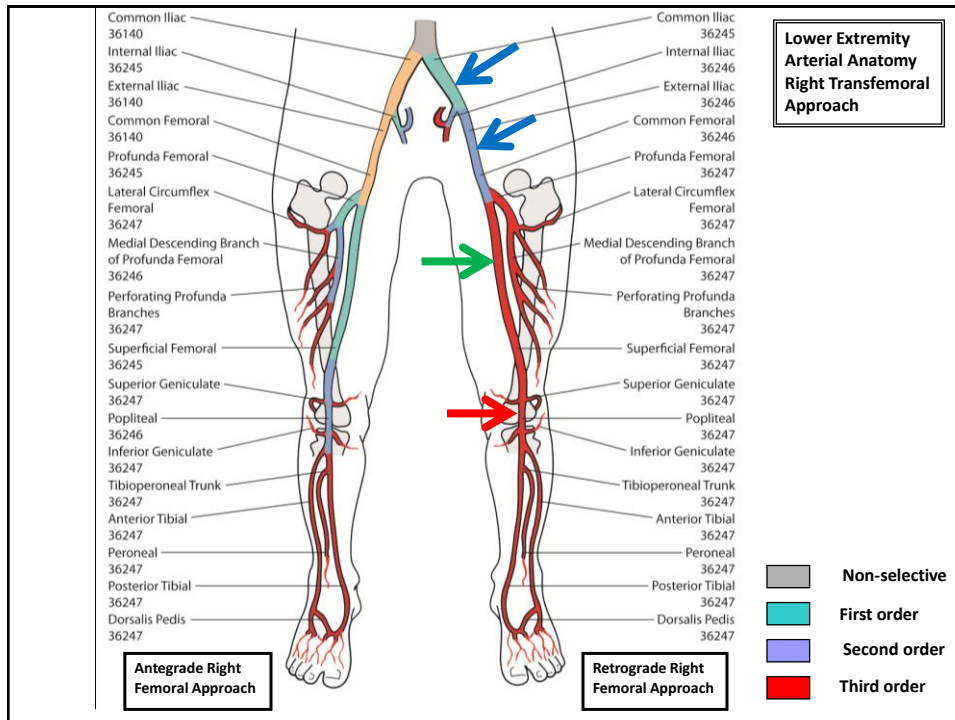


Case #1

Patient with left leg pain. Via right femoral approach, selective complete bilateral lower extremity run-off is performed with catheter placement in the left common iliac and via sheath. A 90% stenosis of left common and a separate 80% left external iliac stenosis is present. The SFA shows 70-80% diffuse disease with a separate short segment occlusion of the popliteal artery. The tibial/peroneal arteries are widely patent. Angioplasty is performed in the common and external iliac, SFA and popliteal arteries with stent placement required in the popliteal for 80% residual stenosis after the angioplasty alone.

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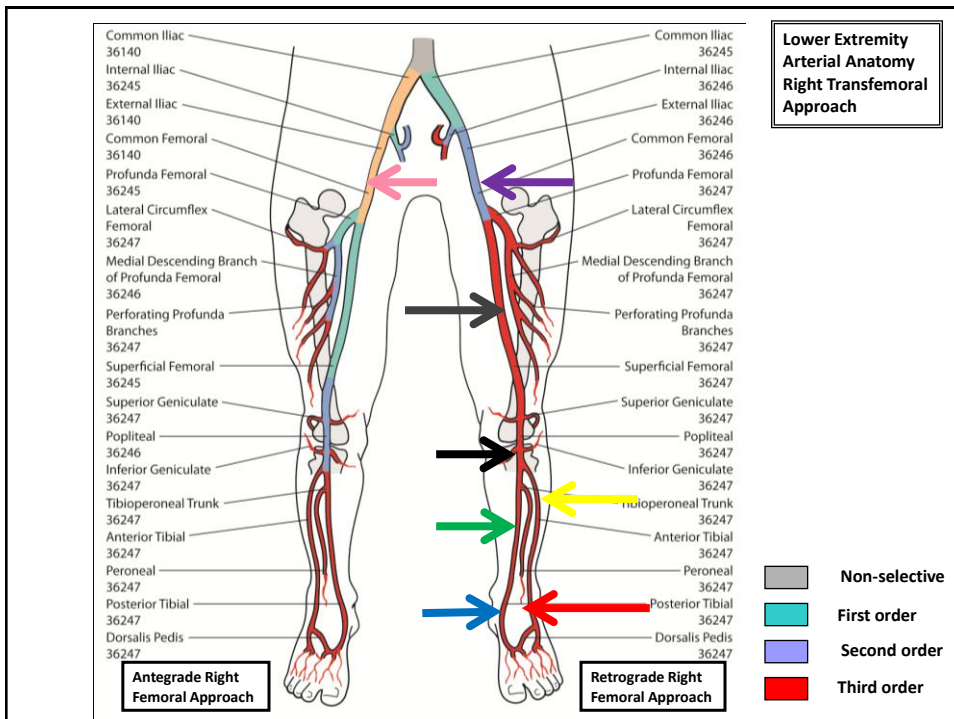


Case #1 Answer

- 75716-59 - Bilateral lower extremity diagnostic angiography
- 37220 – Common iliac angioplasty, initial vessel
- 37222 – External iliac angioplasty, additional vessel
- 37226 – Femoral/popliteal stent placement (includes angioplasty)

Case #2

Via right femoral approach, catheter placement into the contralateral left common femoral artery with left leg run-off, with right leg runoff via the sheath. New left antegrade CFA puncture with left SFA angioplasty of a 5 cm occlusion. This required a covered stent placement due to 70% residual stenosis. Laser atherectomy is performed in the mid popliteal artery. Post laser angioplasty was necessary. The tibial/peroneal-trunk, mid posterior tibial, and medial malleolar arteries had stenoses and occlusions treated with laser atherectomy. The mid and distal anterior tibial, along with the dorsalis pedis arteries were also treated with laser for similar disease. Adjunctive angioplasty is performed in all 5 vessels after the atherectomy. Stent placement is necessary in the tibial/peroneal trunk for flow-limiting dissection.



Case #2 Answer

- 75716-59 – Bilateral lower extremity angiography, S&I
- 36246-59 – Contralateral left CFA catheter placement
- 37227 – SFA stent and popliteal atherectomy with angioplasty
- 37231 – Posterior tibial atherectomy with TP trunk stent
- 37233 – Anterior tibial atherectomy, includes angioplasty
 - Medial malleolar intervention is part of the posterior tibial, and the dorsalis pedis intervention is part of the anterior tibial artery intervention

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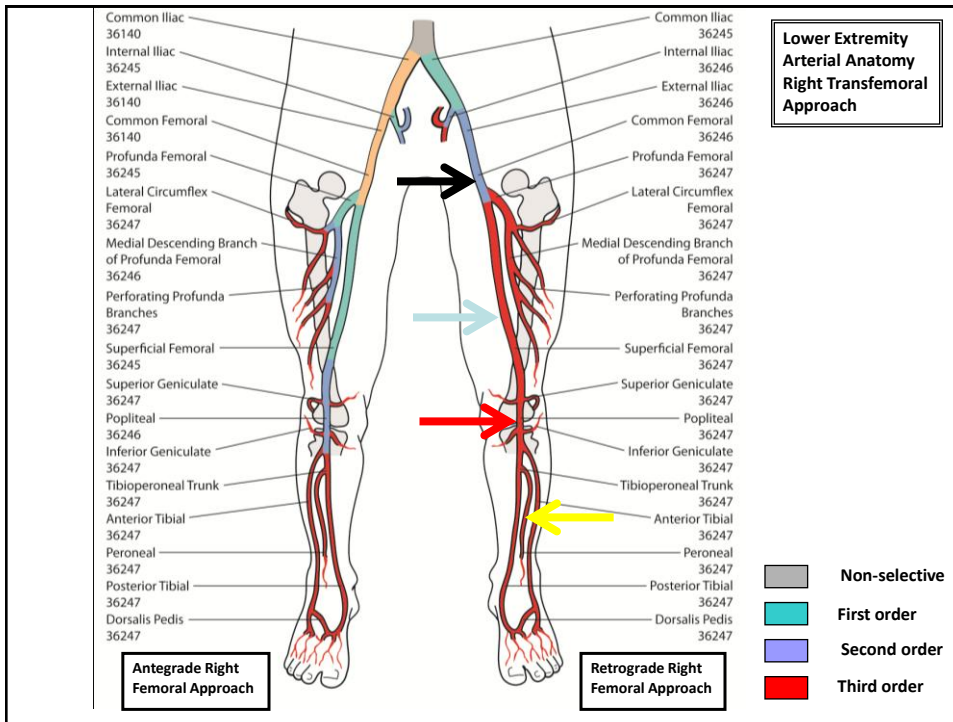


Case #3

Patient with known 10 cm SFA occlusion. Antegrade puncture in CFA with attempted subintimal recanalization failed. Patient is placed prone and popliteal access obtained. SFA occlusion is traversed using a Cross-It XT guidewire and a Safe-Cross catheter. The wire is snared into the CFA sheath with angioplasty performed (5 mm balloon with hemodynamically significant residual stenosis) followed by placement of a 5 mm stent graft. Embolization is seen into the peroneal on completion angiogram. This is treated with suction thrombectomy via CFA access. Follow-up angiography shows patency of the peroneal. Closure devices are placed at both sites.

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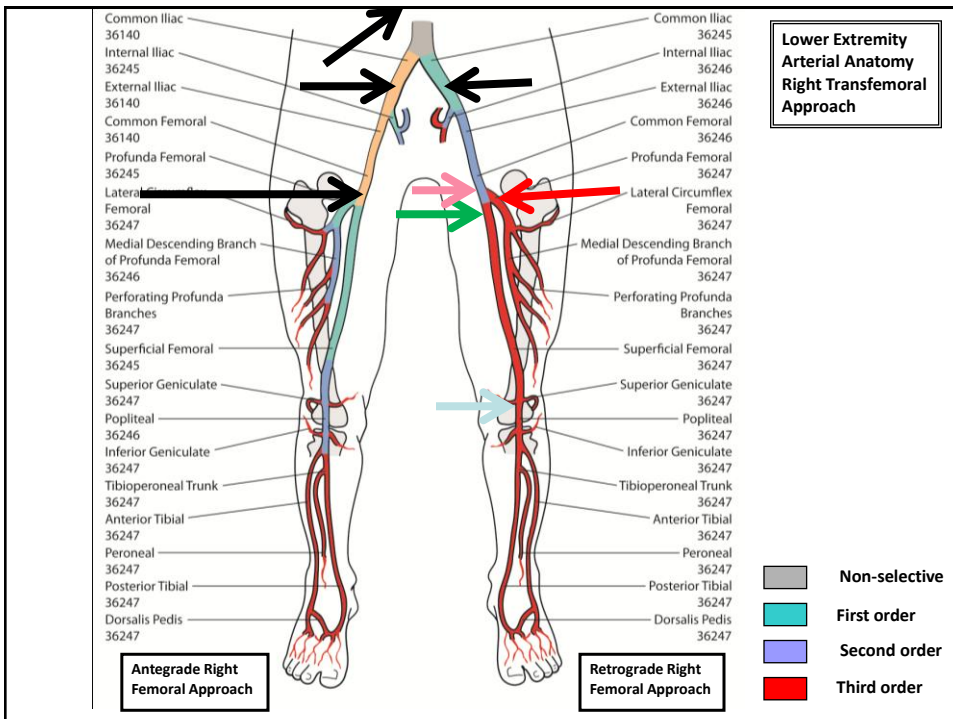


Case #3 Answer

- 37226 – SFA stent placement (includes catheter placements, recanalization, angioplasty, stent placement, imaging and closure device placements)
- 37186 – Secondary arterial thrombectomy in the peroneal artery

Case #4

Patient with recent CTA showing 90+% stenoses of the right renal artery, both common iliac arteries, the common femoral artery (CFA) extending into the profunda (PFA) and superficial femoral arteries (SFA) and an occlusion of the popliteal artery. Via right femoral access, aortogram and left leg runoff is performed confirming all these lesions. Right renal angioplasty (pre-dilation with a 3 mm balloon) is followed by 6 mm stent placement for suboptimal results. Bilateral common iliac stent placement is performed. Kissing angioplasty from the CFA into the proximal SFA and PFA. The proximal SFA required stent placement for dissection. The separate popliteal occlusion is treated with laser atherectomy.



Case #4 Answer

- 36245 – Catheter placement into renal artery
- 37205 – Stent placement into renal artery
- 75960 – Stent placement S&I
- 37221 – Right Iliac stent placement
- 37221-59 – Left Iliac stent placement
- 37227 – Left CFA angioplasty, PFA angioplasty, SFA angioplasty and stent placement, popliteal laser atherectomy and all catheter placements

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Other Angioplasty Procedures

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Angioplasty

- Utilizes a balloon to dilate a narrowed vessel (this includes cryo, cutting, compliant, non-compliant, etc. types of balloons)
- May be percutaneous or open technique
 - *Peripheral Artery (for Brachiocephalic arteries only)*
 - 75962 – Initial vessel
 - 75964 – Each additional vessel
(even if there are two separate punctures, there is still only one initial brachiocephalic angioplasty S&I per human body)
 - *Renal or Visceral Artery (including Aortic Angioplasty)*
 - 75966 – Initial vessel
 - 75968 – Each additional vessel
 - *Venous (including peripheral, central, portal, pulmonary veins)*
 - 75978 – Initial and each additional vessel

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Angioplasty

Surgical codes specific to approach and specific artery:

- Percutaneous (involves an 11 blade to access through the thick skin, but no multilayered closure)
 - 35471 – *Renal or visceral artery*
 - 35472 – *Aorta*
 - 35475 – *Brachiocephalic trunk or branches*
- Open (documentation of surgical incision and multilayered closure of the access site)
 - 35450 – *Renal or visceral artery (C)*
 - 35452 – *Aorta (C)*
 - 35458 – *Brachiocephalic trunk or branches*

*(C) Is inpatient only procedure for Medicare patients

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Angioplasty

- Angioplasty is coded per vessel treated (except the femoral popliteal system), not per stenosis. The tibioperoneal system is now limited to three vessels.
- Do not need to be successful to charge for angioplasty
- CAN code for angioplasty and separate stent in the same site/vessel in the brachiocephalic arteries, visceral, and renal arteries and veins (use new bundled codes for lower extremity revascularization)
 - If intent is to perform a successful angioplasty with an adequately sized balloon, however there is a vessel rupture, 30% residual stenosis (recoil, residual), 5 mm residual gradient, flow-limiting dissection or acute occlusion, then both may be coded as these are indications for coding both PTA and stent placement. This does NOT apply to lower extremities.

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Angioplasty

- Bill separately for...
 - Catheter placement (however NOT for lower extremities)
 - Diagnostic angiography (will require 59 modifier to let CMS know this was a true diagnostic study)
- Do not bill separately for angiography related to...
 - Guiding shots
 - Road mapping/Trace subtraction
 - Positioning
 - Sizing
 - Localization
 - Completion
- These rules apply to stent placement in similar vessels

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Intracranial Angioplasty, Atherosclerotic

Intracranial angioplasty and intracranial stent placement are non-covered services by CMS. *Effective 2/2007 CMS recommends 37799 for intracranial angioplasty and stent placement for treatment of atherosclerotic stenoses >50%, but the physician and hospital must be part of Class B IDE study. This was reconfirmed in 2008.

- ◆ 61630 – *Intracranial angioplasty for atherosclerosis*
- ◆ 61635 – *Intracranial stent for atherosclerosis (includes preliminary angioplasty)*

(These codes include ipsilateral catheter placement, initial and follow-up imaging, along with the intervention. If the diagnostic study shows that the intervention is not indicated, bill the diagnostic studies and catheter placements only. Most of the time the patient will already have a diagnostic study.)

*Medicare Claims Processing Manual, Chapter 32 – Billing Requirements for Special Services, 161C – Intracranial PTA with Stenting, 1/5/07

Intracranial Angioplasty

- 61640 – *Intracranial balloon angioplasty for vasospasm, initial vessel*
- 61641 – *Intracranial balloon angioplasty for vasospasm, each additional vessel in the same vascular family*
- 61642 – *Intracranial balloon angioplasty for vasospasm, each additional vessel in a different vascular family*

(These codes include catheter placement, intra-procedural imaging, roadmapping, vessel measurements, and guidance, along with the intervention and follow-up imaging. If a diagnostic study is needed the day of the intervention, it is separately billable even if performed on the same date of service. Due to the rapidly changing clinical status in these patients it is common to have to perform repeat diagnostic studies. These codes remain non-covered for Medicare at this time).

Case #5

Percutaneous puncture of the right common femoral artery is followed by sheath placement and imaging of the aorta and runoff vessels from high and low catheter positions. Selective catheter placement into both renal arteries with contrast injections and imaging is performed. Diagnostic angiography shows near occlusion of the common iliac arteries bilaterally with 90% right and 70% left renal artery stenoses. Separate sheath is placed in the left femoral artery and kissing iliac angioplasty is performed. Following this, bilateral renal angioplasty is performed via the right femoral sheath with excellent results.

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Case #5 Answer

36245-50 – Catheter placement in right and left renal arteries

75724-59 – Renal angiography, bilateral selective, S&I

75716-59 – Bilateral extremity angiography, S&I

35471-50 – Bilateral renal angioplasty

75966 – Right renal angioplasty, initial vessel, S&I

75968 – Left renal angioplasty, additional vessel, S&I

37220 – Right iliac angioplasty

37220-59 – Left iliac angioplasty

Other Atherectomy Procedures

Atherectomy 2011

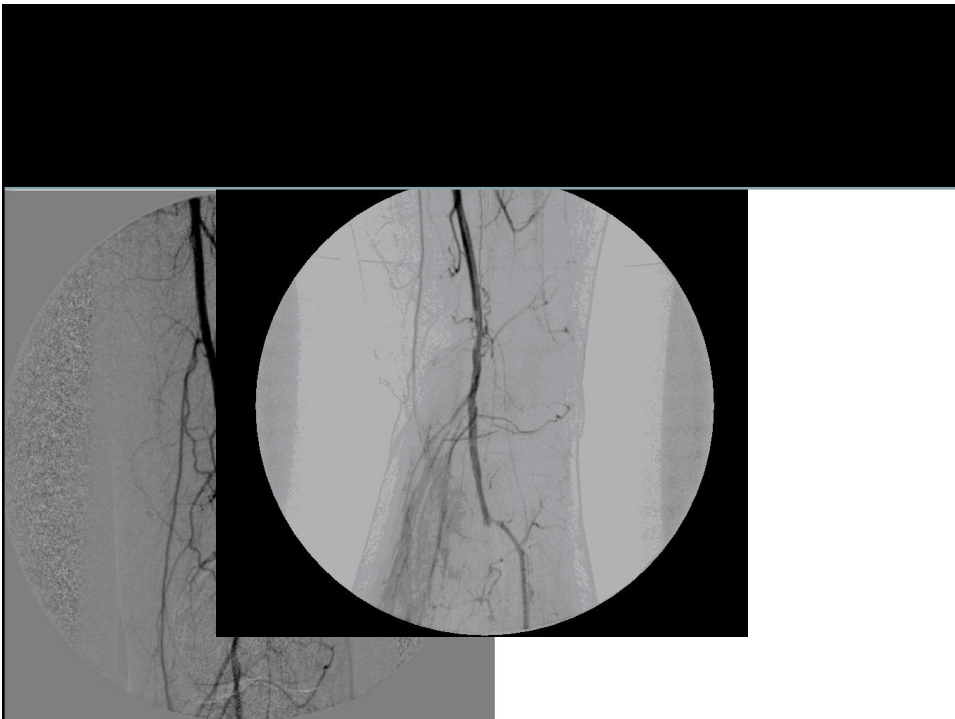
- Percutaneous or Open, including S&I for procedure
 - **Supra-Inguinal**
 - 0234T – *Renal artery*
 - 0235T – *Visceral artery*
 - 0236T – *Aorta*
 - 0237T – *Brachiocephalic trunk or branches*
 - 0238T – *Iliac artery*
 - 37799 – *Venous*
 - **Infra-Inguinal**
 - 37225 – femoral/popliteal, includes angioplasty
 - 37229 – tibioperoneal, initial vessel, includes angioplasty
 - 37233 – tibioperoneal, additional vessel, includes angioplasty

Supra-Inguinal Atherectomy Rules

- Bill separately in addition to 2011 “T” atherectomy codes:
 - Catheter placement
 - Diagnostic angiography
 - Angioplasty and/or Stent placement to treat the same or different lesion in the same or in different vessels
 - Closure device placement
- Atherectomy is per vessel treated, not per stenosis. Same rules as angioplasty and stent placement.
- If multiple stenoses in separate supra-inguinal vessels in the same territory are treated with atherectomy, use the same atherectomy T-codes multiple times as needed for the additional vessels treated (e.g., use 0238T up to 3 times in unilateral iliac territory, use 0236T once for the aorta, use 0234T twice if for bilateral renals)

Case #6

Recent angiogram shows short external iliac occlusion, 3 cm occlusion of the distal left SFA with tibial/peroneal trunk occlusion extending into the peroneal and posterior tibial arteries. Via brachial approach, a wire was advanced across the occlusion of the iliac, SFA and through the tibial/peroneal occlusions. Laser atherectomy was performed in these vessels. The posterior tibial artery required stent placement while post laser angioplasty was performed at all three locations. Closure device was placed.



Case #6 Answer

0238T – Atherectomy in the external iliac artery

37225 – Atherectomy in the superficial femoral artery

37231 – Stent placement with atherectomy in the posterior tibial artery, initial tibial/peroneal artery

37233 – Atherectomy in the peroneal artery, additional tibial/peroneal artery

Other Vascular Stent Procedures

Non-Coronary/Carotid/Vertebral/ Lower Extremity Stent Placement Rules

- Percutaneous
 - 37205 – stent placement initial vessel (not coronary, vertebral, carotid, cerebral or lower extremity artery)
 - 37206 – stent placement each additional vessel (not coronary, vertebral, carotid, cerebral or lower extremity artery)
- Open
 - 37207 – stent placement initial vessel(not coronary, vertebral, carotid, cerebral or lower extremity artery)
 - 37208 – stent placement each additional vessel(not coronary, vertebral, carotid, cerebral or lower extremity artery)
- S&I
 - 75960 – Transcatheter introduction of stent percutaneous or open, not coronary, vertebral, carotid, cerebral or lower extremity artery, S&I

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Carotid Stent Placement

- 37215 – Carotid cervical stent placement with embolic protection
- 37216 – Carotid cervical stent placement without embolic protection
 - 37215 & 37216 include:
 - Ipsilateral selective catheterization
 - Ipsilateral carotid cervical and cerebral artery S&I
 - All road-mapping, guiding shots and follow-up images
 - All angioplasties within the region of stent deployment
 - 37215 remains an inpatient **C-status indicator** procedure (1/2011)
 - Medicare expects you to abandon the case if EPD not possible
 - Code 75962 not appropriate as the carotid artery is not a peripheral artery

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Common Carotid and Vertebral Stent Placement

- 0075T – *Percutaneous placement extracranial vertebral or intrathoracic common carotid stent, initial vessel*
 - ✓ Includes radiological S&I, imaging and catheter placement
- 0076T – *Percutaneous placement of extracranial vertebral or intrathoracic common carotid stent, each additional vessel*
 - ✓ Includes radiological S&I, imaging and catheter placement
 - ✓ This is an add-on code to 0075T

Codes 0075T and 0076T expire January 2015.