Peripheral Interventions: Part 1
Angioplasty, Atherectomy, and Stent Placement

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Lower Extremity Arterial Endovascular Revascularization Codes 37220-37235

Lower Extremity Arterial Anatomy Right Transfemoral Approach

- Non-selective
- First order
- Second order
- Third order

Diagram of Lower Extremity Arterial Anatomy Right Transfemoral Approach

Legend:
- Common Femoral
- External Femoral
- Profunda Femoral
- Femoral Pudendal
- Femoral Cutaneous
- Obturator Internal
- Femoral Branch of Inferior Epigastric Artery
- Deep Inferior Epigastric Artery
- Superficial Femoral
- Superficial Femoral Vein
- Popliteal
- Popliteal Vein
- Inferior Saphenous
- Superior Saphenous
- Anterior Tibial
- Posterior Tibial
- Peroneal
- Anterior Calf Artery
- Sural Artery
- Deep Femoral Artery
- Deep Femoral Vein
- Femoral Pedicle
- Rectus Femoris
- Sartorius
- Vastus Lateralis
- Vastus Medialis
- Quadriceps Femoris
- Anterior Femoral Cutaneous Nerve
- Femoral Nerve
Guidelines for Lower Extremity Arterial Endovascular Revascularization Procedures

- The following guidelines apply to codes 37220-37235, and refer to interventions described by angioplasty, atherectomy and stent placement for treatment of occlusive vascular disease.
- Angioplasty utilizes a balloon to dilate a hemodynamically significant vessel stenosis. The balloon may be a compliant or non-compliant balloon, a cryoplasty balloon, a cutting balloon, etc.
- Atherectomy is performed utilizing photoablation (laser), rotational (Rotoblater, Diamondback Orbital) or directional cutting (Silver Hawk) devices
- Stent placement utilizes a bare metal, drug-eluting, balloon-expandable, self-expanding or covered stent to effectively treat the lesion(s)
- Codes 37220-37235 all include an angioplasty if performed

Guidelines for Lower Extremity Arterial Endovascular Revascularization Procedures

- 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 code submitted for intervention within the femoral/popliteal system, regardless of the types and numbers of separate and distinct vascular interventions (angioplasty, atherectomy and/or stent placements) that are performed in the CFA, SFA, PFA and popliteal arteries.
- There are 3 separately billable arteries below the knee: the peroneal, anterior tibial and the posterior tibial. The tibial/peroneal trunk is considered part of any distal intervention (in the posterior tibial or peroneal. The anterior tibial is considered a separate vessel for intervention when tibial/peroneal trunk intervention is also performed.

Guidelines for Lower Extremity Arterial Endovascular Revascularization Procedures

- 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 for MD. Hospitals may report for tracking purposes for Medicare per AHA, AMA)
- These codes include conscious sedation, vascular access, catheter placement, work involved with crossing the lesion (including use of specialty guidewires, subintimal recanalization, ultrasound vibration, etc.), imaging related to the entire procedure, 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 suprainguinal iliac atherectomy
- Thrombolysis (37201, 75896), thrombectomy procedures (37184, 37185 and 37186), embolization (37204, 75894), and extensive repair or replacement of the artery (35226, 35286) can be additionally reported.
Guidelines for Lower Extremity Arterial Endovascular Revascularization Procedures

- Codes 37220-37235 describe either angioplasty alone, atherectomy +/- angioplasty, stent placement +/- angioplasty and stent placement with atherectomy +/- angioplasty.
- Stent with atherectomy > atherectomy > stent placement > angioplasty (even though codes not listed in this order in CPT)
  - This actually only affects coding for the tibial/peroneal arteries
- The femoral/popliteal and tibial/peroneal territory codes incorporate atherectomy procedures. The iliac territory does not as the iliac territory codes only describe angioplasty and stent placement (+/- angioplasty). Iliac atherectomy is additionally coded with 0238T if performed and is coded per iliac vessel treated (up to three times).

Guidelines for Lower Extremity Arterial Endovascular Revascularization Procedures

- A maximum of 1 initial and 2 additional interventions can be performed in a unilateral iliac system, 1 initial in the femoral/popliteal system and 1 initial and 2 additional in the tibial/peroneal system. Code each territory separately.
- All interventions within a single vessel are always coded as a single intervention (except iliac atherectomy).
- Code “bridging” lesions as one vessel intervention, even if bridging into another arterial territory.
- There are 4 iliac, 4 femoral/popliteal and 8 tibial/peroneal artery revascularization codes. These codes ONLY apply to arterial stenoses, NOT venous.

Guidelines for Lower Extremity Arterial Endovascular Revascularization Procedures

- Code 76937 may be billed for each separate access made with ultrasound guidance for LE revascularization procedures. Must be documented per CPT guidelines.
Guidelines for Lower Extremity Arterial Endovascular Revascularization Procedures

- 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.

- 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

Lower Extremity Arterial Endovascular Revascularization Procedures: Iliac

- 37220 – Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, initial vessel, with angioplasty
- 37221 – Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, initial vessel, with stent placement, includes angioplasty within the same vessel
- 37222 – Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, each additional vessel, with angioplasty
- 37223 – Revascularization, endovascular, open or percutaneous, iliac artery, unilateral, each additional vessel, with stent placement, includes angioplasty within the same vessel

Lower Extremity Arterial Endovascular Revascularization Procedures: Femoral/Popliteal

- 37224 – Revascularization, endovascular, open or percutaneous, femoral/popliteal artery, unilateral, with angioplasty
- 37225 – Revascularization, endovascular, open or percutaneous, femoral/popliteal artery, unilateral, with atherectomy, includes angioplasty within the same vessel when performed
- 37226 – Revascularization, endovascular, open or percutaneous, femoral/popliteal artery, unilateral, with stent placement, includes angioplasty within the same vessel when performed
- 37227 – Revascularization, endovascular, open or percutaneous, femoral/popliteal artery, unilateral, with stent placement and atherectomy, includes angioplasty within the same vessel when performed
Lower Extremity Arterial Endovascular Revascularization Procedures: Tibial/Peroneal

- 37228 – Revascularization, endovascular, open or percutaneous, tibial/ peroneal artery, unilateral, initial vessel, includes angioplasty if done
- 37229 – Revascularization, endovascular, open or percutaneous, tibial/ peroneal artery, unilateral, with atherectomy, initial vessel, includes angioplasty within the same vessel when performed
- 37230 – Revascularization, endovascular, open or percutaneous, tibial/ peroneal artery, unilateral, initial vessel with stent placement, includes angioplasty within the same vessel when performed
- 37231 – Revascularization, endovascular, open or percutaneous, tibial/ peroneal artery, unilateral, initial vessel with stent placement and atherectomy, includes angioplasty within the same vessel when performed

- 37232 – Revascularization, endovascular, open or percutaneous, tibial/ peroneal artery, unilateral, each additional vessel, with angioplasty
- 37233 – Revascularization, endovascular, open or percutaneous, tibial/ peroneal artery, unilateral, each additional vessel, with atherectomy, includes angioplasty within the same vessel when performed
- 37234 – Revascularization, endovascular, open or percutaneous, tibial/ peroneal artery, unilateral, each additional vessel, with stent placement, includes angioplasty within the same vessel when performed
- 37235 – Revascularization, endovascular, open or percutaneous, tibial/ peroneal artery, unilateral, each additional vessel, with stent placement and atherectomy, includes angioplasty within the same vessel when performed

Lower Extremity Arterial Endovascular Revascularization Procedures: Simplified - Iliac

- 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 interventions in the contralateral iliac
Lower Extremity Arterial Endovascular
Revascularization Procedures: Simplified – Femoral/Popliteal

- 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 artery

Lower Extremity Arterial Endovascular
Revascularization Procedures: Simplified – Tibial/Peroneal

- 37228 – Tib/per angioplasty, initial vessel
- 37229 – Tib/per atherectomy, initial vessel
- 37230 – Tib/per stent placement, initial vessel
- 37231 – Tib/per stent placement with atherectomy

- Only submit 1 of the above codes per extremity. Use -59 modifier for an intervention in the contralateral tibial/peroneal artery

Lower Extremity Arterial Endovascular
Revascularization Procedures: Simplified – Tibial/Peroneal

- 37232 – Tib/per angioplasty, each additional vessel
- 37233 – Tib/per atherectomy, each additional vessel
- 37234 – Tib/per stent placement, each additional vessel
- 37235 – Tib/per stent placement with atherectomy, each additional vessel

- List up to 2 additional codes separately in addition to the initial vessel code. Use -59 modifier for an intervention in the contralateral tibial/peroneal arteries
Guidelines for Lower Extremity Arterial Endovascular Revascularization Procedures

- Catheter placement in leg for thrombolysis and diagnostic day 1 with stent placement at a separate session on the same day is separately billable.
- Catheter placement in leg for thrombolysis and diagnostic day 1 with stent placement on a subsequent day is separately billable.
- Catheter placement in 2 tibial vessels for secondary thrombectomy after an iliac stent placement is bundled (if via the same access and in the same vascular family as the iliac stent placement).
- Guiding IVUS for recanalization is bundled as used to “cross the lesion”.
- Diagnostic IVUS to determine if a stent is appropriately deployed or to determine if there is a complication of the procedure is separately billable.
- Stent-graft placement for popliteal aneurysm, use 37226.

LE Endovascular Revascularization Case 1:

Patient with left leg pain. Via right femoral approach, aortogram from high cath position, followed by selective (1st order) bilateral renal angiography. The catheter is pulled down for complete bilateral lower extremity run-off from left common iliac artery and right femoral sheath injections. Catheter advanced to contralateral SFA and additional images obtained to evaluate haziness in the popliteal. 90% stenoses of left external iliac with 70-80% diffuse disease throughout the entire SFA and popliteal. The tibial/peroneal trunk and distal vessels are unremarkable. Angioplasty is performed in the external iliac, SFA and popliteal arteries with stent required in the popliteal for dissection.
LE Endovascular Revascularization Case 1:

36252 – Bilateral selective renal angiography
75716-59 – Bilateral lower extremity angiography
75774-59 – Add’l selective angiography, left popliteal
37220 – External iliac angioplasty
37226 – Femoral/popliteal stent placement, includes angioplasty (in the SFA and popliteal arterial distribution)

LE Endovascular Revascularization Case 2:

Via right femoral approach, diagnostic aortogram, cath reposition to bifurcation, bilateral run-off, additional selective catheter placement with images in contralateral SFA. New left antegrade CFA puncture with left SFA recanalization of occlusion mid-SFA to Hunter’s canal. Angioplasty and covered stent placement in SFA. Laser is performed in the mid popliteal, throughout the tibial/peroneal-trunk, in the mid posterior tibial, mid and distal anterior tibial, and dorsalis pedis arteries. Adjunctive angioplasty is performed in all these tibial/peroneal vessels after the atherectomy. Stent placement is necessary in the tibial/peroneal trunk for flow-limiting dissection.

Lower Extremity Arterial Anatomy Right Transfemoral Approach

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<th>First order</th>
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<th>Third order</th>
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**LE Endovascular Revascularization Case 2 Codes:**

- 75625-59 – Abdominal aortography
- 75716-59 – Bilateral lower extremity angiography
- 75774-59 – Add’l selective angiography, left SFA
- 36247-59 – 3rd order selective catheter placement via separate access
- 37227 – Femoral/popliteal stent placement with atherectomy
- 37231 – Tibial/peroneal trunk stent with atherectomy including posterior tibial atherectomy and adjunctive angioplasty
- 37233 – Anterior tibial/dorsalis pedis atherectomy, including adjunctive angioplasty

**LE Endovascular Revascularization Case 3:**

Patient with known 4cm SFA occlusion. Previous antegrade approach failed. The patient is placed in the prone position, the popliteal fossa prepped, and using ultrasound guidance (vessel is patent, needle access confirmed and permanent recorded image placed in the chart) access and SFR sheath placed. Heparin is given (4000units). The SFA occlusion is traversed, angioplasty performed (4mm with suboptimal result) followed by 5mm covered stentgraft across previous occlusion. Embolization into the peroneal is noted on routine follow-up. This is treated with suction thrombectomy after new CFA access is obtained. Follow-up angiography looks good. Closure device is placed in the CFA.
LE Endovascular Revascularization Case 3:

37226 – Superficial femoral artery covered stent placement (includes preliminary angioplasty)

76937 – Ultrasound guidance for vascular access

36247-59 – 3rd order selective catheter placement into the peroneal artery via separate CFA access

37186 – Secondary arterial thrombectomy in the peroneal artery

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LE Endovascular Revascularization Case 4:

Patient with prior CTA showing renal, iliac and fem/pop stenoses. Here for intervention. Via right common femoral access, right renal angioplasty (3mm predilation) followed by 6mm stent placement is performed. The catheter is pulled back and used to cross separate and distinct 90% stenoses of the proximal left common iliac artery, mid left external iliac artery, distal left CFA/SFA artery (bridging lesion), and 90% PFA stenosis 1cm distal to origin. These are all treated with angioplasty and stent placements. Treatment of the proximal SFA and PFA stenoses required kissing stent deployment and two catheter placements. Occlusion of the distal SFA required initial treatment with laser atherectomy followed by adjunctive angioplasty here and in the popliteal artery.

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LE Endovascular Revascularization Case 4:

36245-59 – 1st order selective catheter placement into the renal artery for stent placement
37205-59 – Renal stent placement
75960-59 – Renal stent placement, S&I
37227 – Proximal SFA, CFA, PFA stent placements, distal SFA atherectomy (includes angioplasty)
37221 – Common iliac stent placement
37223 – External iliac stent placement (additional iliac artery stent placement)

LE Endovascular Revascularization Case 5:

Via brachial approach, 90% left external iliac calcific stenosis is treated with Diamondback atherectomy device. This results in 40% residual stenosis, treated effectively with subsequent high pressure 7mm x 4cm balloon angioplasty. Exchange is made for a 5mm balloon which is used for angioplasty of a 95% origin stenosis of the internal iliac artery and a 2mm balloon is used for angioplasty of a 70% internal pudendal artery stenosis.
LE Endovascular Revascularization Case 5:

0238T – "External iliac artery atherectomy"
37220 – "External iliac artery angioplasty (initial)"
37222 – "Internal iliac artery angioplasty (additional iliac angioplasty, includes both the internal iliac artery origin and the distal internal pudendal artery angioplasties in the same iliac vascular distribution)"

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LE Endovascular Revascularization Case 6:

Via contralateral approach, bridging lesion from the proximal left external iliac extending into the proximal left CFA treated initially with 8mm angioplasty requiring 8mm x 6cm stent for proximal dissection. A catheter is then advanced across a short segmental occlusion of the popliteal artery and a stent is placed with excellent results.
LE Endovascular Revascularization Case 6:

37221 – External iliac artery stent placement (initial)
37226 – Popliteal artery stent placement

(Had the proximal lesion been primarily a common femoral lesion, only one femoral/popliteal stent would be coded as all lesions would have been in one femoral/popliteal territory. In the above example, the bridging lesion is documented as primarily external iliac in nature so it is separately coded in addition to the popliteal treatment)

Complex Therapeutic Radiology Coding

Angioplasty
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

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

Venous Angioplasty (Venoplasty)

Surgical codes based on approach

- Venous – Use for venous stenosis in extremity veins, central veins and portal veins
  - 35476 – Percutaneous
  - 35460 – Open
Guidelines for Lower Extremity Revascularization - Angioplasty Only

- Open or Percutaneous, includes catheter placement, access across lesion, angioplasty, image guidance, follow-up, & closure device
  - 37220 - Iliac artery, initial vessel
  - 37222 - Iliac artery, each additional vessel (up to 2 times)
  - 37224 - Femoral-popliteal artery (includes CFA, PFA, SFA and POP)
  - 37228 - Tibial/peroneal artery, initial vessel
  - 37232 - Tibial/peroneal artery, each additional vessel (up to 2 times)

Angioplasty

- Angioplasty is coded per vessel treated (except the femoral popliteal system), not per stenosis. The tibial/peroneal 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, 20-30% residual stenosis (recoil, residual), 5mm residual systolic 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.

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
• Do not code “pre-dilation” angioplasty prior to stent placement.
• Do not code “post-stent deployment angioplasty to fully dilate or deploy the stent or for “residual stenosis” in the self-deploying stent.
• Do not code angioplasty when the intent was to stent the vessel from the start.
• Do not code angioplasty, when the angioplasty gives a great result, but we stented the vessel anyways.
• Do not code angioplasty when the original balloon is too small to give a good result to start with and stent is then “required”.
• Do not code multiple angioplasties in a single vessel.
• Do not code two angioplasties when treating a short bridging lesion across two adjacent vessels.
• Do not code angioplasty when macerating clot, this is part of a thrombectomy procedure.
• Do not code angioplasty when done with atherectomy or stent placement in the lower extremities.

Brachiocephalic Angioplasty

Carotid and Vertebral artery angioplasty without stent placement are non-covered services for Medicare patients. (CMS states the carotid artery is not a peripheral artery so do not use 75962, implies not to use 35475). Discuss this with your payer. We recommend 37799 with G2 modifier to alert payer this is non-covered.

Brachiocephalic refers to the vessels arising from the cervicocerebral arch, including the upper extremities. The code 35475 applies to the right brachiocephalic artery, the right and left subclavian, axillary, brachial, radial and ulnar arteries of the upper extremities and can be used with arterial anastomotic stenoses of upper extremity AV fistula/graft intervention.

Intracranial Angioplasty, Atherosclerotic

Since 2002, intracranial angioplasty and intracranial stent placement have been non-covered services by CMS. In 2006, new CPT codes were created for treatment of atherosclerosis and vasospasm. *Effective 11/2006 CMS recommends 37799 for intracranial angioplasty and stent placement for atherosclerotic stenoses but the physician and hospital must be part of Class B IDE study and the treatment is limited to atherosclerotic stenoses ≥50%. This was reconfirmed in 2008. No changes since, except recent study (SAPRAS study, Sept. 2011) suggests intracranial angioplasty/stent may have higher morbidity/mortality compared to maximal medical therapy alone. If not part of study, this procedure remains non-covered. Consider G2 modifier. Check with payer.

• 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.

* Medicare Claims Processing Manual, Chapter 12 – Billing Requirements for Special Services,
  526 – Intracranial PTA with Stenting, 7/12
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 by Medicare at this time. G2 modifier may be considered for Medicare patients.

Lower Extremity Angiography, Angioplasty, and Stent Graft Case 7:

Via a right femoral approach, abdominal aortography high catheter placement, complete lower extremity run-offs after catheter repositioning to the low abdominal aorta, followed by imaging after selective catheter placement into the left main renal artery and an accessory left renal artery (the right renal artery is occluded). Bilateral common iliac artery stenoses of 80% were present. A left sheath was placed and kissing angioplasty of the iliac arteries was performed with 8mm balloons with excellent results.
Lower Extremity Angiography, Angioplasty, and Stent Graft Case 7 Codes:

- 36251 – Unilateral selective renal angiography
- 75716-59 – Bilateral lower extremity angiography, S&I
- 37220 – Right iliac artery angioplasty, initial vessel (right)
- 37220-59 – Left iliac artery angioplasty, initial vessel (left)

Lower Extremity Diagnostic Angio, Angioplasty, and Stent Case 8:

Patient with right ax-fem, fem-fem x-over and left fem-pop bypass grafts. Via direct puncture of the ax-fem graft, a catheter was advanced through the subclavian artery and into the abdominal aorta. Aortogram showed occlusion below the renals. The catheter was pulled back for subclavian inflow angiography which showed anastomotic 80% stenosis. Angioplasty was performed. The catheter was reversed in the ax-fem graft and imaging down the ax-fem graft and both lower extremities was performed. The catheter was advanced through the fem-fem x-over into the left fem-pop graft where a stent was placed across a distal anastomotic stenosis.
Lower Extremity Arterial Anatomy Right Transfemoral Approach

First order
Second order
Third order

Non-selective
Selective

Low Extremity Diagnostic Angio, Angioplasty, and Stent Case 8 Codes:

36200-59 – Catheter placement into the aorta
75625-59 – Abdominal aortography, S&I
75710-59 – Left subclavian angiography, S&I
35475 – Left subclavian artery/graft anastomotic angioplasty
75962-59 – Left subclavian artery/graft anastomotic angioplasty, S&I
37226 – Left fem-pop distal anastomotic stent placement
75716-59 – Bilateral lower extremity angiography S&I (to evaluate the ax-fem and fem-fem grafts and runoff down the legs)
Angioplasty Case 9:

Patient with abnormal renal Doppler study and bilateral claudication, left worse than right.

A right groin puncture is performed. A catheter is advanced into the aorta, and an aortogram is performed. The catheter is pulled down to the bifurcation. Contrast is injected and complete bilateral lower extremity angiography is performed. After catheter exchange, both renal arteries were selected and imaged. 80% right and 90% left renal stenoses are seen. Angioplasty was then performed with 6mm balloons in each renal artery. Follow up angiography showed excellent results, except that the right renal artery required a 6mm stent placement for treatment of a flow limiting dissection. The catheter was then advanced into the left common iliac artery. Contrast injection confirms 70-90% stenoses of the proximal external iliac, the profunda femoral and the distal popliteal arteries. Angioplasty is performed at these three lower extremity separate and distinct sites with 7mm, 4mm, and 5mm balloon respectively.

Angioplasty Case 9 Codes:

75716-59 – Bilateral extremity angiogram, bilateral, S&I
36252 – Bilateral renal angiogram (includes catheter placement and S&I)
35471-50 – Bilateral renal artery angioplasty
75966 – Visceral angioplasty, initial vessel, S&I
75968 – Visceral angioplasty, additional vessel, S&I
37205-59 – Stent placement (right renal artery)
75960-59 – Stent placement, right renal artery, S&I
37220 – Iliac angioplasty, perc, initial, (external iliac)
37224 – Femoral/popliteal angioplasty, (includes both the profunda femoral and popliteal artery angioplasties)
Complex Therapeutic Radiology Coding

Atherectomy

Atherectomy

• Utilizes rotational burrs, directional cutting devices or photoablation (laser) to clean out arterial structures and remove atheroma from the vessel
• Excimer Laser, Fox Hollow EV3 Silver Hawk, Orbital Atherectomy Device, Rotablator, Simpson device, Jetstream G2, G3, Crosser catheter, etc.

Surgical codes specific to approach and specific artery

• 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 “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 multiple NON-fem/pop/tibial/peroneal (supra-inguinal) vessels 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).

Infra-Inguinal Atherectomy Rules

- The following are bundled with atherectomy below inguinal ligament:
  - Vascular access, catheter placement, work to cross the lesion & angioplasty same vessel.
  - Imaging related to the procedure along with follow-up imaging. Use of EPD.
  - Other interventions to treat the same or other vessels may require different codes (Stent placement bundles atherectomy, atherectomy bundles angioplasty in same vessel).
  - Vessel closure with sutures, device placement or pressure.
- Atherectomy is per vessel treated, not per stenosis. (Does not apply to fem-pop vessels as all 4 vessels are considered 1). There are 3 tibial/peroneal vessels now.
- Tibio-peroneal trunk is part of any distal intervention (posterior tibial and peroneal.) The dorsalis pedis and medial malleolar branches are part of the anterior tibial and posterior tibial arteries respectively.
- If multiple stenoses in multiple femoral/popitibial or tibial/peroneal vessels are treated with atherectomy, use codes 37220, 37221, 37231, 37233, and 37235 as appropriate.

Atherectomy Case 10:

65 year old with known occlusion of the proximal left popliteal artery along with high grade stenoses of the proximal anterior tibial, peroneal, tibial/peroneal trunk and mid posterior tibial arteries. There is also a severe stenosis of the dorsalis pedis artery. Patient is here for intervention. Via an antegrade common femoral artery approach, a 6 Fr sheath was placed and a catheter advanced to the SFA and imaging performed, confirming lesions. Wire recanalization, followed by 2mm angioplasty of the popliteal lesion followed by 5mm atherectomy resulting in 20% residual stenosis. 2.5mm atherectomy was then performed in all tibial/peroneal arteries above. Angioplasty of the dorsalis pedis artery with a 1.5mm balloon is then performed.
Lower Extremity Arterial Anatomy
Right Transfemoral Approach

First order
Second order
Third order

Atherectomy Case 10 Codes:

37225 – atherectomy proximal popliteal artery
37229 – atherectomy in posterior tibial artery
37233 – additional vessel atherectomy in anterior tibial artery (includes angioplasty in dorsalis pedis artery)
37233 – additional vessel atherectomy in peroneal artery

Complex Therapeutic Radiology Coding

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

- There is one S&I code
  - 75960 – Transcatheter introduction of stent percutaneous or open, not coronary, vertebral, carotid, cerebral or lower extremity artery, S&I

- The procedure codes are more specific
  - 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)

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

- Procedure codes
  - Open
    - 37207 – stent placement initial vessel
    - 37208 – stent placement each additional vessel

- Codes are for placement in the vascular system only

- Use these codes when procedures are done by “cut-down” technique

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

- Bill per vessel treated (not per lesion).
- Use 75960 multiple times on multiple vessel stent procedures.
- Bill separately for
  - catheter placement
  - diagnostic angiography (must meet medical necessity)
- Do not bill separately for a “guiding” or follow-up angiogram.
Non-Coronary/Carotid/Vertebral/Lower Extremity Stent Placement Rules

- Angioplasty is not billed separately when
  - Performed as pre-dilation of a lesion to assist in placement of the stent
  - Performed as part of the stent deployment
  - Performed to model, completely expand or increase the size of the stent

Non-Carotid/Vertebral/Lower Extremity Stent Placement Rules

- Angioplasty is billable when:
  - Performed initially as a primary angioplasty, but with a sub-optimal result (i.e., elastic recoil with 20-30% residual stenosis, flow-limiting dissection, 5mm residual systolic pullback gradient or acute occlusion)
  - Performed to treat an area of the vessel not treated with the stent
  - Performed to treat a dissection or stent-induced stenosis (i.e., plaque movement)
  - Only applies to renal, visceral and brachiocephalic arteries and venous structures

Infra-Inguinal Lower Extremity Stent Placement Rules

- Vascular access, catheter placement, work to cross the lesion is bundled.
- Atherectomy and angioplasty in the same vessel is included in the stent placement codes.
- Other interventions to treat the same or other vessels may require different codes (stent placement bundles atherectomy and angioplasty, atherectomy bundles angioplasty in same vessel).
- S&I related to the procedure along with follow-up imaging is included. Use of embolic protection device is included.
- Closure device placement is bundled.
Lower Extremity Stent Placement Codes

- 37221 – Iliac stent, initial vessel
- 37223 – Iliac stent, each additional vessel
- 37226 – Femoral/popliteal stent
- 37227 – Femoral/popliteal stent, with atherectomy
- 37230 – Tibial/peroneal stent, initial vessel
- 37231– Tibial/peroneal stent, with atherectomy, initial vessel
- 37234 – Tibial/peroneal stent, each additional vessel
- 37235– Tibial/peroneal stent, with atherectomy, each additional vessel

Carotid Angioplasty (Concurrent with Carotid Stent Placement)

- Must be performed in facilities that have been determined to be competent in performing:
  - the evaluation
  - the procedure
  - the follow-up necessary to ensure optimal patient outcomes

Carotid Angioplasty (Concurrent with Carotid Stent Placement)

- The facility must have:
  - Advanced physiologic monitoring
  - Readily available emergency management equipment and systems
  - A clearly delineated program for granting CAS privileges and for monitoring the quality of the individual interventionists and the program as a whole
  - A data collection system maintained by the facility or its contractor on all CAS procedures done
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 and cerebral artery S&I
  - All other related S&I during stent placement procedure
  - 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 (1/2012)
- Code 75962 not appropriate as the carotid artery is not a peripheral artery

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 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.

Stent Placement Case 11:

Patient with Doppler stenoses of the left carotid and left vertebral arteries. Possible vertebral steal. Via femoral approach, arch exam followed by selective catheter placements with injection of contrast, imaging and findings via the right and left common carotid arteries and right and left vertebral arteries with imaging of the head and neck is performed. Arch, right proximal subclavian, right vertebral, right cervical and cerebral arteries and basilar arteries are normal. The proximal left internal carotid, proximal left subclavian and separate left vertebral artery origin are 90% stenosed. Using embolic protection, stents were placed in all three vessels. Follow-up imaging is normal.
Stent Placement Case 11 Codes:

37215 – Left cervical carotid stent placement
0075T – Left extracranial vertebral stent placement
37205 – Left subclavian stent placement
75960 – Left subclavian stent placement S&I
36217 – Right vertebral catheter placement
36218 – Right common carotid cath placement
75650 – Cervicocerebral arch S&I
75676 – Right cervical carotid S&I
75665 – Right cerebral carotid S&I
75685 – Right vertebral S&I

*This is an inpatient only procedure