

Supplemental Material

Appendix 1: CPT codes

OPEN:	
Inflow:	Outflow:
35521 Bypass graft, with vein;axillary-femoral	35302 Thromboendarterectomy, including patch graft, if performed;superficial femoral artery
35351 Thromboendarterectomy, including patch graft, if performed;iliac	35303 Thromboendarterectomy, including patch graft, if performed;popliteal artery
35355 Thromboendarterectomy, including patch graft, if performed;iliofemoral	35304 Thromboendarterectomy, including patch graft, if performed;tibioperoneal trunk artery
35361 Thromboendarterectomy, including patch graft, if performed;combined aortoiliac	35305 Thromboendarterectomy, including patch graft, if performed;tibial or peroneal artery
35363 Thromboendarterectomy, including patch graft, if performed;combined aortoiliofemoral	35306 Thromboendarterectomy, including patch graft, if performed;each additional tibial
35537: aortoiliac bypass	35371 Thromboendarterectomy, including patch graft, if performed;common femoral
35538 Bypass graft, with vein;aortobi-iliac	35372 Thromboendarterectomy, including patch graft, if performed;deep (profunda) femoral
35539 Bypass graft, with vein;aortofemoral	35533 Bypass graft, with vein;axillary-femoral-femoral
35540 Bypass graft, with vein;aortobifemoral	35556 Bypass graft, with vein;femoral-popliteal
35541 Bypass graft, with vein	35558 Bypass graft, with vein;femoral-femoral
35546 Aortofemoral bypass with vein.	35566 Bypass graft, with vein;femoral-anterior tibial, posterior tibial, peroneal artery
35539: Aortofemoral graft with vein.For aortofemoral graft with vein	35571 Bypass graft, with vein;popliteal-tibial, -peroneal artery or other distal vessels
35548 Bypass graft, with vein;aortoiliofemoral, unilateral	35583 In-situ vein bypass; femoral-popliteal
35549 Bypass graft, with vein;aortoiliofemoral, bilateral	35585 In-situ vein bypass;femoral-anterior tibial, posterior tibial, or peroneal artery
35551 Bypass graft, with vein;aortofemoral-popliteal	35587 In-situ vein bypass;popliteal-tibial, peroneal
35563 Bypass graft, with vein;ilioiliac	35656 Bypass graft, with other than vein;femoral-popliteal
35565 Bypass graft, with vein;iliofemoral	35666 Bypass graft, with other than vein;femoral-anterior tibial, posterior tibial, or peroneal artery
35621 Bypass graft, with other than vein;axillary-femoral	35671 Bypass graft, with other than vein;popliteal-tibial or -peroneal artery
35623 Bypass graft, with other than vein;axillary-popliteal or -tibial	35681 Bypass graft; composite, prosthetic and vein
35637 Bypass graft, with other than vein;aortoiliac	35682 Bypass graft;autogenous composite, two segments of veins from two locations
35638 Bypass graft, with other than vein;aortobi-iliac	35683 Bypass graft;autogenous composite, three or more segments of vein
35646 Bypass graft, with other than vein;aortobifemoral	35879 Revision, lower extremity arterial bypass, without thrombectomy, open; with vein patch angioplasty
35647 Bypass graft, with other than vein;aortofemoral	35881 Revision, lower extremity arterial bypass, without thrombectomy, open;with segmental vein interposition
35651 Bypass graft, with other than vein;aortofemoral-popliteal	35883 Revision, femoral anastomosis of synthetic arterial bypass graft in groin, open; with nonautogenous patch graft
35654 Bypass graft, with other than vein;axillary-femoral-femoral	35884 Revision, femoral anastomosis of synthetic arterial bypass graft in groin, open;with autogenous vein patch graft
35661 Bypass graft, with other than vein;femoral-femoral	
35663 Bypass graft, with other than vein;ilioiliac	
35665 Bypass graft, with other than vein;iliofemoral	
ENDO:	
Inflow:	Outflow:
35452 Transluminal balloon angioplasty, open;aortic	35456 Transluminal balloon angioplasty, open;femoral-popliteal
35454 Transluminal balloon angioplasty, open;iliac	35459 Transluminal balloon angioplasty, open;tibioperoneal trunk and branches
35472 Transluminal balloon angioplasty, percutaneous;aortic	35470 Transluminal balloon angioplasty, percutaneous; tibioperoneal trunk or branches, each vessel
35473 Transluminal balloon angioplasty, percutaneous;iliac	35474 Transluminal balloon angioplasty, percutaneous;femoral-popliteal
35481 Transluminal peripheral atherectomy, open;aortic	35483 Transluminal peripheral atherectomy, open;femoral-popliteal
35482 Transluminal peripheral atherectomy, open;iliac	35485 Transluminal peripheral atherectomy, open;tibioperoneal trunk and branches
35491 Transluminal peripheral atherectomy, percutaneous;aortic	35493 Transluminal peripheral atherectomy, percutaneous;femoral-popliteal
35492 Transluminal peripheral atherectomy, percutaneous;iliac	35495 Transluminal peripheral atherectomy, percutaneous;tibioperoneal trunk and branches
	37205 Transcatheter placement of an intravascular stent(s), (except coronary, carotid, and vertebral vessel), percutaneous; initial vessel
	37206 Transcatheter placement of an intravascular stent(s), (except coronary, carotid, and vertebral vessel), percutaneous;each additional vessel
	37207 Transcatheter placement of an intravascular stent(s), (non-coronary vessel), open; initial vessel
	37208 Transcatheter placement of an intravascular stent(s), (non-coronary vessel), open;each additional vessel
Diagnostic Only Endovascular Procedures:	
36200	Introduction of catheter, aorta
36245	selective catheter placement, arterial system, each first-order, lower- extremity
36246	selective catheter placement, arterial system, second-order, lower- extremity
36247	selective catheter placement, arterial system, third-order, lower- extremity
36248	selective catheter placement, arterial system, beyond third order, lower- extremity
CPT Code	Outcome Measure: Amputation
27590	Amputation, thigh, through femur, any level;
27591	Amputation, thigh, through femur, any level; immediate fitting technique including first cast
27592	Amputation, thigh, through femur, any level; open, circular (guillotine)
27880	Amputation, leg, through tibia and fibula;
27881	Amputation, leg, through tibia and fibula; with immediate fitting technique
27882	Amputation, leg, through tibia and fibula; open, circular (guillotine)
28805	Amputation, foot; transmetatarsal

Appendix 2:

Multivariable analysis of factors associated with undergoing a non-diagnostic endovascular procedure in the year prior to amputation.

	Odds Ratio	95% Confidence Interval	p value
Intensity of Vascular Care			
Very Low Intensity	Referent	"--"	"--"
Low Intensity	1.1	1.0	1.3
Medium Intensity	1.4	1.2	1.6
High Intensity	1.6	1.3	1.8
Very High Intensity	2.0	1.7	2.2
Age			
Age 65-70	Referent	"--"	"--"
Age 76-80	1.1	0.9	1.2
Age 81-85	1.0	0.9	1.2
Age 86-90	0.8	0.7	1.0
Age 91-95	0.8	0.7	0.9
Age >95	0.4	0.4	0.6
Black Race	0.7	0.7	0.8
Male Gender	1.0	0.9	1.0
Myocardial Infarction	1.1	0.9	1.2
Congestive Heart Failure	1.1	1.0	1.2
COPD	1.2	1.1	1.3
Diabetes	1.2	1.1	1.4
Renal Failure	1.7	1.5	1.8

Multivariable analysis of factors associated with undergoing an open surgical procedure in the year prior to amputation.

	Odds Ratio	95% Confidence Interval	p value
Intensity of Vascular Care			
Very Low Intensity	Referent	"--"	"--"
Low Intensity	1.7	1.5	2.0
Medium Intensity	1.9	1.6	2.2
High Intensity	2.1	1.8	2.5
Very High Intensity	2.5	2.2	2.9
Age			
Age 65-70	Referent	"--"	"--"
Age 76-80	0.9	0.8	1.1
Age 81-85	0.9	0.8	1.0
Age 86-90	0.7	0.6	0.8
Age 91-95	0.5	0.4	0.6
Age >95	0.3	0.2	0.4
Congestive Heart Failure	0.9	0.8	1.0
Renal Failure	0.9	0.8	1.0
Black Race	0.9	0.8	1.0
Male Gender	1.0	0.9	1.1
COPD	1.5	1.4	1.7
Diabetes	1.2	1.1	1.4
Myocardial Infarction	1.4	1.2	1.6