

Instructions for Use

# Lower Extremity Endovascular Procedures (for Tennessee Only)

Policy Number: CS166TN.L Effective Date: December 1, 2023

| Table of Contents                   | Page |
|-------------------------------------|------|
| Application                         | 1    |
| Coverage Rationale                  | 1    |
| Definitions                         | 2    |
| Applicable Codes                    | 2    |
| Description of Services             | 11   |
| Clinical Evidence                   | 11   |
| U.S. Food and Drug Administration   | 14   |
| References                          | 15   |
| Policy History/Revision Information | 16   |
| Instructions for Use                | 16   |

**Related Policies** 

- Pneumatic Compression Devices (for Tennessee • Only)
- Surgical and Ablative Procedures for Venous Insufficiency and Varicose Veins (for Tennessee Only)

## Application

This Medical Policy applies to Medicaid and CoverKids in the state of Tennessee.

## **Coverage Rationale**

Note: This policy does not apply to upper extremities.

Endovascular revascularization procedures (e.g., stents, angioplasty and/or atherectomy) are proven and medically necessary for treating non-limb-threatening lower extremity ischemia in individuals with Claudication due to atherosclerotic disease of the aortoiliac and/or femoropopliteal arteries when all the following criteria are met:

- Impaired ability to work and/or perform activities of daily living (ADL); and .
- All the following conservative therapies have been tried and failed: •
  - 0 At least twelve (12) weeks of a Supervised or Structured Exercise Program; and
  - 0 Pharmacologic therapy; and
  - Smoking cessation, if applicable 0

#### and

- Ischemic peripheral artery disease with Ankle-Brachial Index (ABI) ≤ 0.90; and .
- Imaging results show anatomic location and severity of occlusion (stenosis ≥ 50%) (e.g., duplex ultrasound, computed tomography angiography (CTA), magnetic resonance angiography (MRA) or invasive angiography). If duplex ultrasound does not demonstrate a stenosis ≥ 50%, another imaging modality will be necessary to demonstrate the extent of stenosis

Endovascular revascularization procedures (e.g., stents, angioplasty and/or atherectomy) are proven and medically necessary for treating Chronic Limb-Threatening Ischemia (CLTI) with the diagnoses listed under Applicable Codes.

Page 1 of 16

Due to insufficient evidence of efficacy, endovascular revascularization procedures (e.g., stents, angioplasty and/or atherectomy) for treating lower extremity ischemia are unproven and not medically necessary in the following circumstances:

- Interventions performed for non-limb-threatening infrapopliteal (e.g., anterior tibial, posterior tibial or peroneal) artery disease
- Individual is asymptomatic
- To prevent the progression of Claudication to CLTI
- Transluminal peripheral atherectomy of the iliac artery
- Treatment of a nonviable limb

Due to insufficient evidence of efficacy, endovenous femoropopliteal bypass using a stent graft is unproven and not medically necessary for treating peripheral artery disease.

## Definitions

**Ankle-Brachial Index (ABI)**: The ABI compares the systolic blood pressure in the ankle to the systolic blood pressure in the arm and indicates how well blood is flowing in the limbs. An ABI less than 0.90 indicates peripheral artery disease (PAD) (Gerhard-Herman et al., 2017).

Chronic Limb-Threatening Ischemia (CLTI): A condition characterized by chronic (≥ 2 weeks) ischemic rest pain, nonhealing wound/ulcers or gangrene in one or both legs attributable to arterial occlusive disease (Gerhard-Herman et al., 2017). Also referred to as critical limb ischemia (CLI).

**Claudication**: Fatigue, discomfort, cramping or pain of vascular origin in the muscles of the lower extremities that is consistently induced by exercise and consistently relieved by rest (within 10 min) (Gerhard-Herman et al., 2017).

Structured Exercise Program: Components of a Structured Exercise Program include all the following

(Gerhard-Herman, et al., 2017):

- Program takes place in the personal setting of the individual rather than in a clinical setting
- Program is self-directed with guidance of healthcare provider(s)
- Healthcare providers prescribe an exercise regimen like that of a Supervised Program
- Individual counseling ensures understanding of how to begin and maintain the program and how to progress the difficulty of the walking (by increasing distance or speed)
- Program may incorporate behavioral change techniques, such as health coaching or use of activity monitors

Supervised Exercise Program: Components of a Supervised Exercise Program include all of the following

(Gerhard-Herman, et al., 2017):

- Program takes place in a hospital or outpatient facility
- Program uses intermittent walking exercise as the treatment modality
- Program can be standalone or within a cardiac rehabilitation program
- Program is directly supervised by [qualified] healthcare provider(s)
- Training is performed for a minimum of 30–45 minutes per session and sessions are performed at least 3 times per week for a minimum of 12 weeks
- Training involves intermittent bouts of walking to moderate-to-maximum Claudication, alternating with periods of rest
- Warm-up and cool-down periods precede and follow each session of walking

## **Applicable Codes**

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by federal, state, or contractual requirements and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

Lower Extremity Endovascular Procedures (for Tennessee Only) UnitedHealthcare Community Plan Medical Policy Proprietary Information of UnitedHealthcare. Copyright 2023 United HealthCare Services, Inc.

| CPT Code | Description   |
|----------|---|
| 0238T    | Transluminal peripheral atherectomy, open or percutaneous, including radiological supervision and interpretation; iliac artery, each vessel   |
| 0505T    | Endovenous femoral-popliteal arterial revascularization, with transcatheter placement of intravascular stent graft(s) and closure by any method, including percutaneous or open vascular access, ultrasound guidance for vascular access when performed, all catheterization(s) and intraprocedural roadmapping and imaging guidance necessary to complete the intervention, all associated radiological supervision and interpretation, when performed, with crossing of the occlusive lesion in an extraluminal fashion |
| 37220    | Revascularization, endovascular, open, or percutaneous, iliac artery, unilateral, initial vessel; with transluminal angioplasty   |
| 37221    | Revascularization, endovascular, open, or percutaneous, iliac artery, unilateral, initial vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed   |
| 37222    | Revascularization, endovascular, open, or percutaneous, iliac artery, each additional ipsilateral iliac vessel; with transluminal angioplasty (List separately in addition to code for primary procedure)   |
| 37223    | Revascularization, endovascular, open, or percutaneous, iliac artery, each additional ipsilateral iliac vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)   |
| 37224    | Revascularization, endovascular, open, or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal angioplasty   |
| 37225    | Revascularization, endovascular, open, or percutaneous, femoral, popliteal artery(s), unilateral; with atherectomy, includes angioplasty within the same vessel, when performed   |
| 37226    | Revascularization, endovascular, open, or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed   |
| 37227    | Revascularization, endovascular, open, or percutaneous, femoral, popliteal artery(s), unilateral; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed   |
| 37228    | Revascularization, endovascular, open, or percutaneous, tibial, peroneal artery, unilateral, initial vesse with transluminal angioplasty  |
| 37229    | Revascularization, endovascular, open, or percutaneous, tibial, peroneal artery, unilateral, initial vesse with atherectomy, includes angioplasty within the same vessel, when performed  |
| 37230    | Revascularization, endovascular, open, or percutaneous, tibial, peroneal artery, unilateral, initial vesse with transluminal stent placement(s), includes angioplasty within the same vessel, when performed  |
| 37231    | Revascularization, endovascular, open, or percutaneous, tibial, peroneal artery, unilateral, initial vesse with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed  |
| 37232    | Revascularization, endovascular, open, or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal angioplasty (List separately in addition to code for primary procedure)   |
| 37233    | Revascularization, endovascular, open, or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with atherectomy, includes angioplasty within the same vessel, when performed (Lis separately in addition to code for primary procedure)  |
| 37234    | Revascularization, endovascular, open, or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal stent placement(s), includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)   |
| 37235    | Revascularization, endovascular, open, or percutaneous, tibial/peroneal artery, unilateral, each additional vessel; with transluminal stent placement(s) and atherectomy, includes angioplasty within the same vessel, when performed (List separately in addition to code for primary procedure)   |

CPT<sup>®</sup> is a registered trademark of the American Medical Association

Page 3 of 16

| iagnosis Code | Description  |
|---------------|--|
| E08.52        | Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy with gangrene                    |
| E09.52        | Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy with gangrene                       |
| E10.52        | Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene   |
| E11.52        | Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene   |
| E13.52        | Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene                                |
| 170.221       | Atherosclerosis of native arteries of extremities with rest pain, right leg  |
| 170.222       | Atherosclerosis of native arteries of extremities with rest pain, left leg   |
| 170.223       | Atherosclerosis of native arteries of extremities with rest pain, bilateral legs                                   |
| 170.228       | Atherosclerosis of native arteries of extremities with rest pain, other extremity                                  |
| 170.229       | Atherosclerosis of native arteries of extremities with rest pain, unspecified extremity                            |
| 170.231       | Atherosclerosis of native arteries of right leg with ulceration of thigh   |
| 170.232       | Atherosclerosis of native arteries of right leg with ulceration of calf  |
| 170.233       | Atherosclerosis of native arteries of right leg with ulceration of ankle   |
| 170.234       | Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot                                |
| 170.235       | Atherosclerosis of native arteries of right leg with ulceration of other part of foot                              |
| 170.238       | Atherosclerosis of native arteries of right leg with ulceration of other part of lower leg                         |
| 170.239       | Atherosclerosis of native arteries of right leg with ulceration of unspecified site                                |
| 170.241       | Atherosclerosis of native arteries of left leg with ulceration of thigh  |
| 170.242       | Atherosclerosis of native arteries of left leg with ulceration of calf   |
| 170.243       | Atherosclerosis of native arteries of left leg with ulceration of ankle  |
| 170.244       | Atherosclerosis of native arteries of left leg with ulceration of heel and midfoot                                 |
| 170.245       | Atherosclerosis of native arteries of left leg with ulceration of other part of foot                               |
| 170.248       | Atherosclerosis of native arteries of left leg with ulceration of other part of lower leg                          |
| 170.249       | Atherosclerosis of native arteries of left leg with ulceration of unspecified site                                 |
| 170.25        | Atherosclerosis of native arteries of other extremities with ulceration  |
| 170.261       | Atherosclerosis of native arteries of extremities with gangrene, right leg   |
| 170.262       | Atherosclerosis of native arteries of extremities with gangrene, left leg  |
| 170.263       | Atherosclerosis of native arteries of extremities with gangrene, bilateral legs                                    |
| 170.268       | Atherosclerosis of native arteries of extremities with gangrene, other extremity                                   |
| 170.269       | Atherosclerosis of native arteries of extremities with gangrene, unspecified extremity                             |
| 170.321       | Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, right leg                |
| 170.322       | Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, left leg                 |
| 170.323       | Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, bilateral legs           |
| 170.329       | Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, unspecified extremity    |
| 170.331       | Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of thigh                   |
| 170.332       | Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of calf                    |
| 170.333       | Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of ankle                   |
| 170.334       | Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of heel and midfo          |
| 170.335       | Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of for       |
| 170.338       | Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of lower leg |

| Diagnosis Code | Description   |
|----------------|---|
| 170.339        | Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of unspecified site       |
| 170.341        | Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of thigh                   |
| 170.342        | Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of calf                    |
| 170.343        | Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of ankle                   |
| 170.344        | Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of heel and midfoot        |
| 170.345        | Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of foot      |
| 170.348        | Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of lower leg |
| 170.349        | Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of unspecified site        |
| 170.35         | Atherosclerosis of unspecified type of bypass graft(s) of other extremity with ulceration                         |
| 170.361        | Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, right leg                |
| 170.362        | Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, left leg                 |
| 170.363        | Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, bilateral legs           |
| 170.369        | Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, unspecified extremity    |
| 170.421        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, right leg                   |
| 170.422        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, left leg                    |
| 170.423        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, bilateral legs              |
| 170.428        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, other extremity             |
| 170.429        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, unspecified extremity       |
| 170.431        | Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of thigh                      |
| 170.432        | Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of calf                       |
| 170.433        | Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of ankle                      |
| 170.434        | Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of heel and midfoot           |
| 170.435        | Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of foot         |
| 170.438        | Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of lower leg    |
| 170.439        | Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of unspecified site           |
| 170.441        | Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of thigh                       |
| 170.442        | Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of calf                        |
| 170.443        | Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of ankle                       |
| 170.444        | Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of heel and midfoot            |
| 170.445        | Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of foot          |
| 170.448        | Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of lower leg     |
| 170.449        | Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of unspecified site            |
| 170.461        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, right leg                    |
| 170.462        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, left leg                     |
| 170.463        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, bilateral legs               |
| 170.468        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, other extremity              |
| 170.469        | Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, unspecified extremity        |
| 170.521        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, right leg          |
| 170.522        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, left leg           |

Lower Extremity Endovascular Procedures (for Tennessee Only) UnitedHealthcare Community Plan Medical Policy

Proprietary Information of UnitedHealthcare. Copyright 2023 United HealthCare Services, Inc.

| Diagnosis Code | Description   |
|----------------|---|
| 170.523        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, bilateral legs           |
| 170.528        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, other extremity          |
| 170.529        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, unspecified extremity    |
| 170.531        | Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of thigh                   |
| 170.532        | Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of calf                    |
| 170.533        | Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of ankle                   |
| 170.534        | Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of heel and midfoot        |
| 170.535        | Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of foot      |
| 170.538        | Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of lower leg |
| 170.539        | Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of unspecified site        |
| 170.541        | Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of thigh                    |
| 170.542        | Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of calf                     |
| 170.543        | Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of ankle                    |
| 170.544        | Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of heel and midfoot         |
| 170.545        | Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of foot       |
| 170.548        | Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of lower leg  |
| 170.549        | Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of unspecified site         |
| 170.561        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, right leg                 |
| 170.562        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, left leg                  |
| 170.563        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, bilateral legs            |
| 170.568        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, other extremity           |
| 170.569        | Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, unspecified extremity     |
| 170.621        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, right leg                           |
| 170.622        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, left leg                            |
| 170.623        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, bilateral legs                      |
| 170.628        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, other extremity                     |
| 170.629        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, unspecified extremity               |
| 170.631        | Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of thigh                              |
| 170.632        | Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of calf                               |
| 170.633        | Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of ankle                              |
| 170.634        | Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of heel and midfoot                   |

Proprietary Information of UnitedHealthcare. Copyright 2023 United HealthCare Services, Inc.

| Diagnosis Code | Description  |
|----------------|--|
| 170.635        | Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of foot      |
| 170.638        | Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of lower leg |
| 170.639        | Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of unspecified site        |
| 170.641        | Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of thigh                    |
| 170.642        | Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of calf                     |
| 170.643        | Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of ankle                    |
| 170.644        | Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of heel and midfoot         |
| 170.645        | Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of foot       |
| 170.648        | Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of lower leg  |
| 170.649        | Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of unspecified site         |
| 170.661        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, right leg                 |
| 170.662        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, left leg                  |
| 170.663        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, bilateral legs            |
| 170.668        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, other extremity           |
| 170.669        | Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, unspecified extremity     |
| 170.721        | Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, right leg                |
| 170.722        | Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, left leg                 |
| 170.723        | Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, bilateral legs           |
| 170.728        | Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, other extremity          |
| 170.729        | Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, unspecified extremity    |
| 170.731        | Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of thigh                   |
| 170.732        | Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of calf                    |
| 170.733        | Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of ankle                   |
| 170.734        | Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of heel and midfoot        |
| 170.735        | Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of foot      |
| 170.738        | Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of lower leg |
| 170.739        | Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of unspecified site        |
| 170.741        | Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of thigh                    |
| 170.742        | Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of calf                     |
| 170.743        | Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of ankle                    |
| 170.744        | Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of heel and midfoot         |
| 170.745        | Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of foot       |
| 170.748        | Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of lower leg  |
| 170.749        | Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of unspecified site         |
| 170.761        | Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, right leg                 |
| 170.762        | Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, left leg                  |
| 170.763        | Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, bilateral legs            |
| 170.768        | Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, other extremity           |
| 170.769        | Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, unspecified extremity     |
| 172.3          | Aneurysm of iliac artery   |
| 172.4          | Aneurysm of artery of lower extremity  |
| 172.4          | Aneurysm of other specified arteries   |

| Diagnosis Code | Description   |
|----------------|---|
| 172.9          | Aneurysm of unspecified site                                    |
| 173.00         | Raynaud's syndrome without gangrene                             |
| 173.01         | Raynaud's syndrome with gangrene                                |
| 173.1          | Thromboangiitis obliterans [Buerger's disease]                  |
| 173.81         | Erythromelalgia   |
| 174.3          | Embolism and thrombosis of arteries of the lower extremities    |
| 174.4          | Embolism and thrombosis of arteries of extremities, unspecified |
| 174.5          | Embolism and thrombosis of iliac artery                         |
| 174.8          | Embolism and thrombosis of other arteries                       |
| 174.9          | Embolism and thrombosis of unspecified artery                   |
| 175.021        | Atheroembolism of right lower extremity                         |
| 175.022        | Atheroembolism of left lower extremity                          |
| 175.023        | Atheroembolism of bilateral lower extremities                   |
| 175.029        | Atheroembolism of unspecified lower extremity                   |
| 175.89         | Atheroembolism of other site                                    |
| 177.2          | Rupture of artery   |
| 177.70         | Dissection of unspecified artery                                |
| 177.72         | Dissection of iliac artery                                      |
| 177.77         | Dissection of artery of lower extremity                         |
| 177.79         | Dissection of other specified artery                            |
| 196            | Gangrene, not elsewhere classified                              |
| L03.115        | Cellulitis of right lower limb                                  |
| L03.116        | Cellulitis of left lower limb                                   |
| M86.051        | Acute hematogenous osteomyelitis, right femur                   |
| M86.052        | Acute hematogenous osteomyelitis, left femur                    |
| M86.059        | Acute hematogenous osteomyelitis, unspecified femur             |
| M86.061        | Acute hematogenous osteomyelitis, right tibia and fibula        |
| M86.062        | Acute hematogenous osteomyelitis, left tibia and fibula         |
| M86.069        | Acute hematogenous osteomyelitis, unspecified tibia and fibula  |
| M86.071        | Acute hematogenous osteomyelitis, right ankle and foot          |
| M86.072        | Acute hematogenous osteomyelitis, left ankle and foot           |
| M86.079        | Acute hematogenous osteomyelitis, unspecified ankle and foot    |
| M86.08         | Acute hematogenous osteomyelitis, other sites                   |
| M86.09         | Acute hematogenous osteomyelitis, multiple sites                |
| M86.10         | Other acute osteomyelitis, unspecified site                     |
| M86.151        | Other acute osteomyelitis, right femur                          |
| M86.152        | Other acute osteomyelitis, left femur                           |
| M86.159        | Other acute osteomyelitis, unspecified femur                    |
| M86.161        | Other acute osteomyelitis, right tibia and fibula               |
| M86.162        | Other acute osteomyelitis, left tibia and fibula                |
| M86.169        | Other acute osteomyelitis, unspecified tibia and fibula         |
| M86.171        | Other acute osteomyelitis, right ankle and foot                 |

Proprietary Information of UnitedHealthcare. Copyright 2023 United HealthCare Services, Inc.

| agnosis Code | Description   |
|--------------|---|
| M86.172      | Other acute osteomyelitis, left ankle and foot                          |
| M86.179      | Other acute osteomyelitis, unspecified ankle and foot                   |
| M86.18       | Other acute osteomyelitis, other site                                   |
| M86.19       | Other acute osteomyelitis, multiple sites                               |
| M86.20       | Subacute osteomyelitis, unspecified site                                |
| M86.251      | Subacute osteomyelitis, right femur                                     |
| M86.252      | Subacute osteomyelitis, left femur                                      |
| M86.259      | Subacute osteomyelitis, unspecified femur                               |
| M86.261      | Subacute osteomyelitis, right tibia and fibula                          |
| M86.262      | Subacute osteomyelitis, left tibia and fibula                           |
| M86.269      | Subacute osteomyelitis, unspecified tibia and fibula                    |
| M86.271      | Subacute osteomyelitis, right ankle and foot                            |
| M86.272      | Subacute osteomyelitis, left ankle and foot                             |
| M86.279      | Subacute osteomyelitis, unspecified ankle and foot                      |
| M86.28       | Subacute osteomyelitis, other site                                      |
| M86.29       | Subacute osteomyelitis, multiple sites                                  |
| M86.30       | Chronic multifocal osteomyelitis, unspecified site                      |
| M86.351      | Chronic multifocal osteomyelitis, right femur                           |
| M86.352      | Chronic multifocal osteomyelitis, left femur                            |
| M86.359      | Chronic multifocal osteomyelitis, unspecified femur                     |
| M86.361      | Chronic multifocal osteomyelitis, right tibia and fibula                |
| M86.362      | Chronic multifocal osteomyelitis, left tibia and fibula                 |
| M86.369      | Chronic multifocal osteomyelitis, unspecified tibia and fibula          |
| M86.371      | Chronic multifocal osteomyelitis, right ankle and foot                  |
| M86.372      | Chronic multifocal osteomyelitis, left ankle and foot                   |
| M86.379      | Chronic multifocal osteomyelitis, unspecified ankle and foot            |
| M86.38       | Chronic multifocal osteomyelitis, other site                            |
| M86.39       | Chronic multifocal osteomyelitis, multiple sites                        |
| M86.40       | Chronic osteomyelitis with draining sinus, unspecified site             |
| M86.451      | Chronic osteomyelitis with draining sinus, right femur                  |
| M86.452      | Chronic osteomyelitis with draining sinus, left femur                   |
| M86.459      | Chronic osteomyelitis with draining sinus, unspecified femur            |
| M86.461      | Chronic osteomyelitis with draining sinus, right tibia and fibula       |
| M86.462      | Chronic osteomyelitis with draining sinus, left tibia and fibula        |
| M86.469      | Chronic osteomyelitis with draining sinus, unspecified tibia and fibula |
| M86.471      | Chronic osteomyelitis with draining sinus, right ankle and foot         |
| M86.472      | Chronic osteomyelitis with draining sinus, left ankle and foot          |
| M86.479      | Chronic osteomyelitis with draining sinus, unspecified ankle and foot   |
| M86.48       | Chronic osteomyelitis with draining sinus, other site                   |
| M86.49       | Chronic osteomyelitis with draining sinus, multiple sites               |
| M86.50       | Other chronic hematogenous osteomyelitis, unspecified site              |
| M86.551      | Other chronic hematogenous osteomyelitis, right femur                   |

Lower Extremity Endovascular Procedures (for Tennessee Only) UnitedHealthcare Community Plan Medical Policy

Proprietary Information of UnitedHealthcare. Copyright 2023 United HealthCare Services, Inc.

| Diagnosis Code | Description  |
|----------------|--|
| M86.552        | Other chronic hematogenous osteomyelitis, left femur                   |
| M86.559        | Other chronic hematogenous osteomyelitis, unspecified femur            |
| M86.561        | Other chronic hematogenous osteomyelitis, right tibia and fibula       |
| M86.562        | Other chronic hematogenous osteomyelitis, left tibia and fibula        |
| M86.571        | Other chronic hematogenous osteomyelitis, right ankle and foot         |
| M86.572        | Other chronic hematogenous osteomyelitis, left ankle and foot          |
| M86.579        | Other chronic hematogenous osteomyelitis, unspecified ankle and foot   |
| M86.58         | Other chronic hematogenous osteomyelitis, other site                   |
| M86.59         | Other chronic hematogenous osteomyelitis, multiple sites               |
| M86.60         | Other chronic osteomyelitis, unspecified site                          |
| M86.651        | Other chronic osteomyelitis, right thigh                               |
| M86.652        | Other chronic osteomyelitis, left thigh                                |
| M86.659        | Other chronic osteomyelitis, unspecified thigh                         |
| M86.661        | Other chronic osteomyelitis, right tibia and fibula                    |
| M86.662        | Other chronic osteomyelitis, left tibia and fibula                     |
| M86.669        | Other chronic osteomyelitis, unspecified tibia and fibula              |
| M86.671        | Other chronic osteomyelitis, right ankle and foot                      |
| M86.672        | Other chronic osteomyelitis, left ankle and foot                       |
| M86.679        | Other chronic osteomyelitis, unspecified ankle and foot                |
| M86.68         | Other chronic osteomyelitis, other site                                |
| M86.69         | Other chronic osteomyelitis, multiple sites                            |
| M86.8X0        | Other osteomyelitis, multiple sites                                    |
| M86.8X5        | Other osteomyelitis, thigh   |
| M86.8X6        | Other osteomyelitis, lower leg   |
| M86.8X7        | Other osteomyelitis, ankle and foot                                    |
| M86.8X8        | Other osteomyelitis, other site  |
| M86.8X9        | Other osteomyelitis, unspecified sites                                 |
| M86.9          | Osteomyelitis, unspecified   |
| Q27.30         | Arteriovenous malformation, site unspecified                           |
| Q27.32         | Arteriovenous malformation of vessel of lower limb                     |
| Q27.39         | Arteriovenous malformation, other site                                 |
| Q27.8          | Other specified congenital malformations of peripheral vascular system |
| Q27.9          | Congenital malformation of peripheral vascular system, unspecified     |
| Q87.2          | Congenital malformation syndromes predominantly involving limbs        |
| S35.511A       | Injury of right iliac artery, initial encounter                        |
| S35.512A       | Injury of left iliac artery, initial encounter                         |
| S81.801A       | Unspecified open wound, right lower leg, initial encounter             |
| S81.802A       | Unspecified open wound, left lower leg, initial encounter              |
| S81.809A       | Unspecified open wound, unspecified lower leg, initial encounter       |
| S91.301A       | Unspecified open wound, right foot, initial encounter                  |
| S91.302A       | Unspecified open wound, left foot, initial encounter                   |
| S91.309A       | Unspecified open wound, unspecified foot, initial encounter            |

Lower Extremity Endovascular Procedures (for Tennessee Only) UnitedHealthcare Community Plan Medical Policy

Proprietary Information of UnitedHealthcare. Copyright 2023 United HealthCare Services, Inc.

| Diagnosis Code | Description   |
|----------------|---|
| T82.312A       | Breakdown (mechanical) of femoral arterial graft (bypass), initial encounter                        |
| T82.318A       | Breakdown (mechanical) of other vascular grafts, initial encounter                                  |
| T82.319A       | Breakdown (mechanical) of unspecified vascular grafts, initial encounter                            |
| T82.338A       | Leakage of other vascular grafts, initial encounter   |
| T82.392A       | Other mechanical complication of femoral arterial graft (bypass), initial encounter                 |
| T82.398A       | Other mechanical complication of other vascular grafts, initial encounter                           |
| T82.399A       | Other mechanical complication of unspecified vascular grafts, initial encounter                     |
| T82.818A       | Embolism due to vascular prosthetic devices, implants and grafts, initial encounter                 |
| T82.868A       | Thrombosis due to vascular prosthetic devices, implants and grafts, initial encounter               |
| T82.898A       | Other specified complication of vascular prosthetic devices, implants and grafts, initial encounter |

## **Description of Services**

Peripheral artery disease (PAD) is a narrowing of vessels due to atherosclerosis that limits blood flow to the limbs. PAD most commonly affects arteries in the legs. While many people with PAD do not have any symptoms, some will have leg pain, numbress or cramping during exercise that is relieved by rest (Claudication). Risk factors include age, smoking, diabetes, obesity, high blood pressure and high cholesterol.

PAD is associated with an increased risk of heart attack, stroke and, when left untreated, can lead to CLTI. Treatment options include lifestyle changes, medications, endovascular techniques and surgery. Endovascular techniques to treat Claudication and CLTI include balloon dilation (angioplasty), stents, endovenous stent grafts, and atherectomy. The technique chosen for endovascular treatment depends on many factors including lesion characteristics such as anatomic location, lesion length and degree of calcification (Gerhard-Herman et al., 2017; National Heart, Lung, and Blood Institute website).

## **Clinical Evidence**

The Best Endovascular Versus Best Surgical Therapy for Patients With Critical Limb Ischemia (BEST-CLI) Trial was a prospective, open label, multicenter, randomized controlled, multidisciplinary, superiority trial comparing treatment efficacy, functional outcomes, and quality of life in patients undergoing endovascular or open surgical revascularization. Clinical sites in the United States and internationally enrolled 1830 patients with chronic limb-threatening ischemia (CLTI) and infrainguinal PAD who were candidates for both treatment options. Patients were enrolled into one of two parallel trial cohorts. Patients with suitable single segment of great saphenous vein available for potential bypass were randomized within Cohort 1 (n = 1620), while patients without were randomized within Cohort 2 (n = 480). The primary outcome was a composite of a major adverse limb event (amputation above the ankle or a major limb reintervention) or death from any cause. In Cohort 1, after a median follow-up of 2.7 years, the incidence of a major adverse limb event or death was significantly lower in the surgical group than in the endovascular group. In Cohort 2, after a median follow-up of 1.6 years, the outcomes in the two groups were similar. The incidence of adverse events was similar in the two groups. Because investigators were allowed to use their preferred techniques, there was a potential for selection and operator bias. Also, due to funding issues, the follow-up was longer in Cohort 1 (than Cohort 2 (Farber et al., 2022). The study was funded by the National Heart, Lung, and Blood Institute.

A Cochrane systematic review by Fakhry et al. (2018) assessed the effectiveness of endovascular revascularization compared with no specific therapy for intermittent claudication or compared with a conservative therapy option such as supervised exercise or drug therapy. The review included ten studies with a total of 1087 participants. The results showed that endovascular revascularization and supervised exercise are comparable treatment options in improving walking distances and quality of life in individuals with intermittent claudication. Combination therapy (endovascular revascularization with either supervised exercise or drug therapy) seemed to result in greater improvements than those seen with supervised exercise or drug therapy alone. (The ERASE trial by Fakhry et al., 2015 and the CLEVER trial by Murphy et al., 2015, which were previously cited in this policy, are included in this systematic review).

Malgor et al. (2015) conducted a systematic review to evaluate the efficacy of three treatment strategies for individuals with claudication. Primary outcome measures included mortality, amputation, walking distance, quality of life, patency, and measures of blood flow (ABI). The review included eight systematic reviews and 12 trials enrolling 1548 patients. Compared with medical management, each of the three treatments (surgery, endovascular therapy, and exercise therapy) was associated with improved walking distance, claudication symptoms and quality of life. Evidence supporting superiority of one of the three approaches was limited. However, blood flow parameters improved faster and better with both forms of revascularization compared with exercise or medical management. Compared with endovascular therapy, open surgery may be associated with longer length of hospital stay and higher complication rates but resulted in more durable patency (moderate-quality evidence). (The CLEVER trial by Murphy et al., 2012, which was previously cited in this policy, is included in this systematic review).

Vemulapalli et al. (2015) conducted a systematic review and a network meta-analysis to evaluate the comparative effectiveness of medical therapy, supervised exercise training, endovascular intervention, and surgical revascularization in patients with claudication. Outcomes assessed included walking distance, claudication distance, all-cause mortality and quality of life. Thirty-five studies (n = 7475) were included in the analysis. A meta-analysis of 16 studies suggested that, compared with usual care, maximal walking measures were improved to a greater extent with supervised exercise than with medical therapy or endovascular intervention. A meta-analysis of 12 studies demonstrated that exercise training and endovascular intervention, but not cilostazol, improved initial claudication measures compared with usual care. A meta-analysis of 13 studies suggested that although all treatment modalities were superior to usual care, there was no significant difference between modalities in respect to quality of life. The authors noted that heterogeneity in functional endpoints, single-arm observational study design and poor subgroup reporting significantly limit comparative effectiveness analysis in PAD. Further studies with attention to study design, standardized efficacy and safety endpoints, and appropriate subgroup reporting are needed (The multicenter CLEVER trial by Murphy et al., 2012, which was previously cited in this policy, is included in this systematic review).

#### **Iliac Artery Atherectomy**

Insufficient quality evidence exists to support the efficacy and safety of iliac artery atherectomy.

Atherectomy of the iliac artery is uncommon due to the risk of life-threatening perforation. Lee et al. (2018) assessed the feasibility and safety of orbital atherectomy for the treatment of iliac artery disease using retrospective data from the CONFIRM registries. Patients with at least one iliac artery lesion treated with orbital atherectomy (n = 62 patients; n = 68 lesions) were compared to patients with at least one superficial femoral artery lesion treated with orbital atherectomy (n = 1570 patients; n = 1809 lesions). Both groups had similar baseline demographics; however, the iliac artery group had a lower prevalence of diabetes. For lesion characteristics, the iliac artery group had shorter lesions and a higher percentage of severely calcified lesions. Procedural complication rate was defined as the composite of flow limiting dissection, perforation, slow flow, vessel closure, spasm, embolism, or thrombosis. The iliac group had one reported perforation and one reported vessel closure. The procedural complication rate was low in both groups; however, it was significantly lower in the iliac artery group. The authors note that a randomized trial with long-term follow-up is needed to determine the ideal revascularization strategy for patients with calcified iliac artery disease. The study is limited by the possible bias associated with the observational design.

### **Endovenous Femoropopliteal Bypass**

The DETOUR system utilizes a novel endovenous femoropopliteal bypass procedure for treating patients with moderate to severe PAD who have long occlusive lesions of the superficial femoral artery. Clinical trials are ongoing. Larger high-quality studies evaluating the safety and efficacy of the procedure and comparing the DETOUR system with open surgical bypass are needed.

In an Emerging Technology Report, Hayes found that published evidence supporting the DETOUR system is limited to the results of the DETOUR I study, which has up to 3-year follow-up data for a subset of trial participants. Technical and procedural success was reported to be high. The DETOUR system appears to be a promising alternative to surgical bypass in patients with long occlusions in the superficial femoral artery. However, published results from the pivotal trial and additional studies comparing the DETOUR system with open surgical bypass are needed to better characterize the effectiveness and safety of the system and procedure (Hayes, 2022).

DETOUR 2 is an ongoing prospective, single-arm, multicenter non-randomized study to evaluate the safety and effectiveness of the DETOUR system for percutaneous femoropopliteal bypass. A total of 202 participants in the United States and Europe with severe femoropopliteal artery disease are included.

Lower Extremity Endovascular Procedures (for Tennessee Only) UnitedHealthcare Community Plan Medical Policy Proprietary Information of UnitedHealthcare. Copyright 2023 United HealthCare Services, Inc.

Page 12 of 16 Effective 12/01/2023 DETOUR I was a prospective, single-arm, multicenter non-randomized study with 78 participants. Technical and procedural success during the index procedure were both 96%. Primary stent graft patency rates were 81% at year one and 79% at year two. The authors concluded the DETOUR system was a safe and effective percutaneous alternative to open surgical bypass (Krievins et al., 2020; Halena et al, 2022). Due to the novel transvenous approach of the DETOUR system and risk of thromboembolic complications, venous outcomes were also evaluated in the DETOUR I study. At one year, Schneider et al. (2021) reported a low rate of deep venous thrombotic and obstructive complications. Cross-sectional femoral vein luminal area was preserved, and in some participants, the compensatory vein diameter increased over time. After evaluating a subset of patients enrolled at one study site, Rumba et al. (2022) reported three-year results. The femoral and popliteal vein remained patent with no compensatory enlargement, and there were no significant changes in venous symptom scores or physiologic function. The study is limited by the single-arm study design.

### **Clinical Practice Guidelines**

## American College of Cardiology (ACC)/American Heart Association (AHA)/Society for Cardiovascular Angiography and Interventions (SCAI)/Society of Interventional Radiology (SIR)/Society for Vascular Medicine (SVM)

In a multi-society report, Bailey et al. (2019) published appropriate use criteria for peripheral artery interventions. The panel recommends that patients with PAD and intermittent claudication should first be treated with guideline-directed medical therapy and structured exercise. Revascularization should be considered only in patients who continue to have lifestyle-limiting claudication despite these noninvasive approaches. In situations where medical therapy is insufficient, the selection of surgical or endovascular revascularization depends on several factors including patient risk level and lesion characteristics, such as anatomic location, length and presence of stenosis or occlusion. The criteria indicate that atherectomy of the iliac artery is rarely appropriate in all clinical scenarios. This rating is due to an absence of data supporting the use of this technology compared with balloon angioplasty and stenting. For patients with CLTI, both endovascular or surgical revascularization procedures are considered appropriate and critical for the reduction of high morbidity and mortality rates associated with limb loss and cardiovascular events.

### American Heart Association (AHA)/American College of Cardiology (ACC)

AHA/ACC guidelines for the diagnosis and management of patients with lower extremity PAD make the following recommendations for surgical and endovascular revascularization procedures (Gerhard-Herman et al., 2017).

#### Claudication

- Revascularization is a reasonable treatment option for the patient with lifestyle-limiting claudication with an inadequate response to guideline-directed management and therapy
- Endovascular procedures are effective as a revascularization option for patients with lifestyle-limiting claudication and hemodynamically significant aortoiliac occlusive disease
- Endovascular procedures are reasonable as a revascularization option for patients with lifestyle-limiting claudication and hemodynamically significant femoropopliteal disease
- The usefulness of endovascular procedures as a revascularization option for patients with claudication due to isolated infrapopliteal artery disease is unknown
- Endovascular procedures should not be performed in patients with PAD solely to prevent progression to CLTI

#### CLTI

- In patients with CLTI, revascularization should be performed when possible, to minimize tissue loss
- An evaluation for revascularization options should be performed by an interdisciplinary care team before amputation in the patient with CLTI
- Endovascular procedures are recommended to establish in-line blood flow to the foot in patients with nonhealing wounds or gangrene
- A staged approach to endovascular procedures is reasonable in patients with ischemic rest pain
- Evaluation of lesion characteristics can be useful in selecting the endovascular approach for CLTI

#### International Working Group on the Diabetic Foot (IWGDF)

IWGDF guidelines on the prevention and management of diabetic foot disease state that in patients with either an ankle pressure < 50mm Hg or an ABI < 0.5, consider urgent vascular imaging and, when findings suggest it is appropriate, revascularization. Also consider revascularization if the toe pressure is < 30 mmHg or  $TcPO_2$  is < 25 mmHg. Clinicians might consider revascularization at higher pressure levels in patients with extensive tissue loss or infection (Schaper et al., 2020).

#### National Institute for Health and Care Excellence (NICE)

A National Institute for Health and Care Excellence (NICE) clinical guideline offers recommendations on the management of PAD (NICE, 2012; updated 2020).

#### Society for Vascular Surgery (SVS)

SVS guidelines provide a comprehensive set of recommendations for the evaluation and management of CLTI. Vein bypass may be preferred for average-risk patients with advanced limb threat and high complexity disease, while those with less complex anatomy, intermediate severity limb threat or high patient risk may be favored for endovascular intervention. All patients with CLTI should be afforded best medical therapy including the use of antithrombotic, lipid-lowering, antihypertensive and glycemic control agents, as well as counseling on smoking cessation, diet, exercise, and preventive foot care (Conte et al., 2019).

Separate SVS guidelines provide a comprehensive set of recommendations for the evaluation and management of asymptomatic disease and intermittent claudication. Emphasis is placed on risk factor modification, medical therapies, and broader use of exercise programs to improve cardiovascular health and functional performance. Revascularization for intermittent claudication is an appropriate therapy for selected patients with disabling symptoms, after a careful risk-benefit analysis. Treatment should be individualized based on comorbid conditions, degree of functional impairment and anatomic factors. Invasive treatments for intermittent claudication should provide predictable functional improvements with reasonable durability. A minimum threshold of a > 50% likelihood of sustained efficacy for at least 2 years is suggested as a benchmark. Endovascular approaches are favored for most candidates with aortoiliac disease and for selected patients with femoropopliteal disease in whom anatomic durability is expected to meet this minimum threshold. Conversely, caution is warranted in the use of interventions for intermittent claudication in anatomic settings where durability is limited (extensive calcification, small-caliber arteries, diffuse infrainguinal disease, poor runoff). Surgical bypass may be a preferred strategy in good-risk patients with these disease patterns or in those with prior endovascular failures. Common femoral artery disease should be treated surgically, and the saphenous vein is the preferred conduit for infrainguinal bypass grafting. Patients who undergo invasive treatments for intermittent claudication should be monitored regularly in a surveillance program to record subjective improvements, assess risk factors, optimize compliance with cardioprotective medications and monitor hemodynamic and patency status (Conte et al., 2015).

## U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

The FDA has approved several stents and stent systems for the treatment of PAD of the lower extremities. Refer to the following website (use product codes NIO and NIP) for more information: <a href="https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMA/pma.cfm">https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMA/pma.cfm</a>. (Accessed January 27, 2023)

The FDA has approved several catheter systems used for the treatment of PAD of the lower extremities. Refer to the following website (use product code DQY) for more information: <u>https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/pmn.cfm</u>. (Accessed January 27, 2023)

In June 2020, the DETOUR system (Endologix) received FDA designation as a <u>Breakthrough Device</u> and is currently undergoing clinical trials to support a Premarket Approval (PMA) application. The system consists of the TORUS stent graft and the PQ Crossing Device.

## References

Ahmed O, Hanley M, Bennett SJ, et al.; Expert Panel on Vascular Imaging. ACR Appropriateness Criteria<sup>®</sup> Vascular claudicationassessment for revascularization. J Am Coll Radiol. 2017 May;14(5S):S372-S379.

Bailey SR, Beckman JA, Dao TD, et al. ACC/AHA/SCAI/SIR/SVM 2018 Appropriate use criteria for peripheral artery intervention: a report of the American College of Cardiology Appropriate Use Criteria Task Force, American Heart Association, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, and Society for Vascular Medicine. J Am Coll Cardiol. 2019 Jan 22;73(2):214-237.

Conte MS, Bradbury AW, Kolh P, et al.; GVG Writing Group. Global vascular guidelines on the management of chronic limb-threatening ischemia. J Vasc Surg. 2019 Jun;69(6S):3S-125S.e40. Erratum in: J Vasc Surg. 2019 Aug;70(2):662.

Conte MS, Pomposelli FB, Clair DG, et al.; Society for Vascular Surgery Lower Extremity Guidelines Writing Group. Society for Vascular Surgery practice guidelines for atherosclerotic occlusive disease of the lower extremities: management of asymptomatic disease and claudication. J Vasc Surg. 2015 Mar;61(3 Suppl):2S-41S. Erratum in: J Vasc Surg. 2015 May;61(5):1382.

Fakhry F, Fokkenrood HJP, Spronk S, et al. Endovascular revascularization versus conservative management for intermittent claudication. Cochrane Database of Systematic Reviews 2018, Issue 3. Art. No.: CD010512.

Fakhry F, Spronk S, van der Laan L, et al. Endovascular revascularization and supervised exercise for peripheral artery disease and intermittent claudication: a randomized clinical trial. JAMA. 2015 Nov 10;314(18):1936-44.

Farber A, Menard MT, Conte MS, et al.; BEST-CLI Investigators. Surgery or endovascular therapy for chronic limb-threatening ischemia. N Engl J Med. 2022 Dec 22;387(25):2305-2316.

Francois CJ, Skulborstad EP, Kalva SP, et al.; Expert Panel on Vascular Imaging. ACR Appropriateness Criteria<sup>®</sup> Nonatherosclerotic peripheral arterial disease. J Am Coll Radiol. 2019 May;16(5S):S174-S183.

Gerhard-Herman MD, Gornik HL, Barrett C, et al. 2016 AHA/ACC Guideline on the management of patients with lower extremity peripheral artery disease: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. J Am Coll Cardiol. 2017 Mar 21;69(11):e71-e126. Erratum in: J Am Coll Cardiol. 2017 Mar 21;69(11):1521.

Halena G, Krievins DK, Scheinert D, et al. Percutaneous femoropopliteal bypass: 2-Year results of the DETOUR System. J Endovasc Ther. 2022 Feb;29(1):84-95.

Hayes, Inc. Emerging Technology Report. Detour system for percutaneous femoropopliteal bypass. Hayes, Inc.; December 15, 2022.

Krievins DK, Halena G, Scheinert D, et al. One-year results from the DETOUR I trial of the PQ Bypass DETOUR System for percutaneous femoropopliteal bypass. J Vasc Surg. 2020 Nov;72(5):1648-1658.e2.

Lee MS, Martinsen BJ, Hollowed J, et al. Acute procedural outcomes of orbital atherectomy for the treatment of iliac artery disease: sub-analysis of the CONFIRM registries. Cardiovasc Revasc Med. 2018 Jul;19(5 Pt A):503-505.

Malgor RD, Alahdab F, Elraiyah TA, et al. A systematic review of treatment of intermittent claudication in the lower extremities. J Vasc Surg. 2015 Mar;61(3 Suppl):54S-73S. Erratum in: J Vasc Surg. 2015 May;61(5):1382.

Misra S, Shishehbor MH, Takahashi EA, et al.; American Heart Association Council on Peripheral Vascular Disease; Council on Clinical Cardiology; and Council on Cardiovascular and Stroke Nursing. Perfusion assessment in critical limb ischemia: principles for understanding and the development of evidence and evaluation of devices: A Scientific Statement from the American Heart Association. Circulation. 2019 Sep 17;140(12):e657-e672.

Murphy TP, Cutlip DE, Regensteiner JG, et al.; CLEVER Study Investigators. Supervised exercise versus primary stenting for claudication resulting from aortoiliac peripheral artery disease: six-month outcomes from the claudication: exercise versus endoluminal revascularization (CLEVER) study. Circulation. 2012 Jan 3;125(1):130-9.

Murphy TP, Cutlip DE, Regensteiner JG, et al. Supervised exercise, stent revascularization, or medical therapy for claudication due to aortoiliac peripheral artery disease: the CLEVER study. J Am Coll Cardiol. 2015 Mar 17;65(10):999-1009. Erratum in: J Am Coll Cardiol. 2015 May 12;65(18):2055.

National Heart, Lung and Blood Institute (NHLBI) website. Peripheral artery disease. Updated March 2022. <u>https://www.nhlbi.nih.gov/health-topics/peripheral-artery-disease</u>. Accessed May 23, 2023.

National Institute for Health and Care Excellence (NICE). CG147. Peripheral arterial disease: diagnosis and management. August 2012. Updated December 2020.

Rumba R, Krievins D, Savlovskis J, et al. Long term clinical and functional venous outcomes after endovascular transvenous femoro-popliteal bypass. Int Angiol. 2022 Dec;41(6):509-516.

Schaper NC, van Netten JJ, Apelqvist J, et al.; IWGDF Editorial Board. Practical guidelines on the prevention and management of diabetic foot disease (IWGDF 2019 update). Diabetes Metab Res Rev. 2020 Mar;36 Suppl 1:e3266.

Schneider PA, Krievins DK, Halena G, et al. Venous outcomes at 1 year after using the femoral vein as a conduit for passage of percutaneous femoropopliteal bypass. J Vasc Surg Venous Lymphat Disord. 2021 Sep;9(5):1266-1272.e3.

Vemulapalli S, Dolor RJ, Hasselblad V, et al. Comparative effectiveness of medical therapy, supervised exercise, and revascularization for patients with intermittent claudication: a network meta-analysis. Clin Cardiol. 2015 Jun;38(6):378-86.

## **Policy History/Revision Information**

| Date       | Summary of Changes   |
|------------|--|
| 12/01/2023 | Coverage Rationale   |
|            | • Revised list of unproven and not medically necessary circumstances for treating lower extremity ischemia; added "transluminal peripheral atherectomy of the iliac artery"                                |
|            | • Added language to indicate endovenous femoropopliteal bypass using a stent graft is unproven and not medically necessary for treating peripheral artery disease due to insufficient evidence of efficacy |
|            | Applicable Codes   |
|            | Added CPT codes 0238T and 0505T  |
|            | Supporting Information   |
|            | • Updated <i>Description of Services</i> , <i>Clinical Evidence</i> , <i>FDA</i> , and <i>References</i> sections to reflect the most current information  |
|            | Archived previous policy version CS166TN.K   |

## **Instructions for Use**

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state, or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state, or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state, or contractual requirements for benefit plan coverage govern. Before using this policy, please check the federal, state, or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

UnitedHealthcare may also use tools developed by third parties, such as the InterQual<sup>®</sup> criteria, to assist us in administering health benefits. UnitedHealthcare Medical Policies are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.