

CHAPTER 1
SECTION 19.2

NON-INVASIVE PERIPHERAL VASCULAR DIAGNOSTIC STUDIES: EXTREMITY ARTERIAL STUDIES (INCLUDING DIGITS)

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Authority: [32 CFR 199.4\(b\)](#) and [\(c\)](#)

I. PROCEDURE CODE RANGE

93922 - 93931, and 54240.

II. POLICY

Procedures within this code range may be cost-shared when medically necessary and appropriate.

III. POLICY CONSIDERATIONS

A. Any claim for the third and subsequent repetition of an extremity arterial study-procedure within a period of 12 contiguous months for a specific beneficiary should be reviewed for medical necessity and appropriateness.

B. The following information is to assist in case specific benefit adjudication. Clinical indications listed are not all-inclusive. Procedures accomplished for non-listed indications, which are not otherwise excluded, may be cost-shared when medically necessary and appropriate.

1. Clinical Indications.

a. Typical symptoms which support an extremity arterial study include claudication; extremity pain; numbness, weakness, discomfort, tightness, fatigue or paresthesia aggravated by exercise and relieved by rest; extremity discoloration; extremity coldness or cold sensitivity; skin ulceration with poor healing; severe extremity pain at rest; gangrene; impotence; trauma; dizziness (subclavian steal).

b. Clinical indications "1" through "3" apply to code 54240; clinical indications "1" through "4" apply to codes 93922 - 93924.

- (1) Detect, localize and gauge severity of arterial obstruction.
- (2) Categorize degree of arterial insufficiency.
- (3) Evaluate cutaneous circulation.

(4) Preoperative evaluation for foot surgery with absence of palpable pedal pulse.

2. Technology. The information provided below is background for individuals involved in benefit adjudication.

a. Non-imaging

- (1) Doppler segmental limb pressures
- (2) Continuous-wave Doppler analog wave form analysis
- (3) Segmental plethysmography: water filled; strain-gauge; air filled (PVR); impedance; venous occlusion
- (4) Stress testing: treadmill exercise; reactive hyperemia; plantar flexion of foot against a load
- (5) Pulsed wave Doppler wave form analysis (with or without spectral analysis)
- (6) Other tests to evaluate cutaneous circulation: skin thermometry; thermal conductance; thermal clearance; transcutaneous partial tension O₂ (pO₂); laser Doppler; skin arterial blood pressure; cutaneous radionuclide clearance (Xe-133); photoplethysmography

b. Imaging

- (1) B-mode imaging (includes real-time analysis)
- (2) Duplex scanner (utilizes B-mode ultrasound scanner with pulsed Doppler)
- (3) Radionuclide arteriography (many different isotopes used, either IV or IA injection)
- (4) Radionuclide perfusion scan
- (5) Magnetic Resonance Imaging (MRI)
- (6) Contrast angiography

3. Contractors should forward recommendation for limitations or exclusions of specific clinical applications of this technology, and related utilization review standards, to the TRICARE Management Activity, Office of Medical Benefits and Reimbursement Systems.

IV. EXCLUSIONS

A. The following segmental plethysmography techniques are excluded for arterial pulse volume and wave form analysis:

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1. **Air filled**
 2. **Water filled**
 3. **Strain gauge**
 4. **Venous occlusion**
- B. The following tests to evaluate cutaneous circulation are excluded:
1. **Thermal conductance**
 2. **Thermal clearance**
- V. EFFECTIVE DATE

February 1, 1988 for procedure code 54240 (penile plethysmography).

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