

CHAPTER 1
SECTION 19.3

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

Issue Date: April 25, 1988

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

I. PROCEDURE CODE RANGE

93965 - 93971

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 a extremity venous study-procedure within a period of 12 contiguous months for a specific beneficiary should be reviewed for medical necessity and appropriateness.

B. The following procedures are not usually considered productive for studies below the knee and should be reviewed for medical necessity and appropriateness:

1. Doppler venous survey
2. Photoplethysmography
3. Impedance plethysmography
4. Strain gauge plethysmography
5. Air plethysmography

C. 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. Doppler ultrasound and venous plethysmography allow diagnosis of thrombi by detection of alteration in venous flow.

1. Clinical Indications.

a. Typical symptoms which support a venous study include acute or chronic swelling of the lower or upper extremity; ulceration of the lower or upper extremity; or lower or upper extremity pain.

b. The following clinical indications apply to CPT code 93965:

(1) ICD-9-CM 453.8: Deep venous resistance or acute superficial venous thrombosis.

(2) ICD-9-CM 454.9: Valvular incompetence (deep or superficial varicose veins).

(3) ICD-9-CM 459.81; 459.1: Chronic venous insufficiency (postphlebitic syndromes).

(4) ICD-9-CM 415.1: Pulmonary embolus (to determine if source is in the lower extremity or prior to cable filter placement).

(5) ICD-9-CM 453.9: Upper extremity venous thrombosis (deep or superficial).

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

a. Non-imaging

(1) Venous Doppler survey

(2) Venous plethysmography (PVR) measures venous outflow by one or a combination (usually air and impedance types) of the following methods: air plethysmography; impedance plethysmography (IPG); strain-gauge plethysmography (SGP); phleborheograph plethysmography (PRG); segmental plethysmography.

(3) Photoplethysmography (PPG) used with tourniquets to detect venous insufficiency before surgery on varicose veins.

b. Imaging

(1) Magnetic Resonance Angiography

(2) Pulsed Doppler arteriography

(3) Real-time B-mode ultrasound

(4) Duplex ultrasound

(5) Color-coded echo flow arteriography

(6) Ascending or descending contrast venography

3. Frequency.

a. Doppler ultrasound and venous plethysmography may be repeated one or more times if the initial study is negative for acute deep vein thrombosis.

b. A repeat of a positive study when used as a guide to determine the success of therapeutic interventions is usually medically necessary.

c. For bed rest patients, studies may be repeated every few days to manage for deep vein thrombosis.

d. For other tests aimed at chronic venous insufficiency (superficial, deep, obstructive, or valvular insufficiency), repeat tests may be justified to gauge the effectiveness of therapeutic interventions.

e. A repeat Duplex scanner study is usually only medically necessary for the following indications:

- (1) A high suspicion of the early formation of an acute deep vein thrombosis
- (2) An earlier equivocal test
- (3) To determine patient progress
- (4) To evaluate a change in clinical status
- (5) To evaluate a surgical result

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

IV. EXCLUSIONS

A. The following are excluded from coverage:

1. Thermography is excluded (CPT code 93762: Thermogram, peripheral).
2. Water plethysmography.

- END -

