
Procedure Name: Lower Extremity Vein Mapping

Updated: 12/3/2020

Indications:

To assess the availability of vessels prior to creation of a permanent dialysis access in a chronic renal failure (CRF) patient who has no suitable arm veins to use as a conduit for an arteriovenous fistula. To identify an adequate vein, preoperatively, in a patient with peripheral arterial occlusive disease (PAOD) who is deemed a candidate for lower extremity bypass graft. To determine preoperatively, in a patient undergoing a coronary artery bypass if there is a suitable vein to be used as a conduit.

General Description:

Mapping of the lower extremity veins is performed to evaluate the superficial veins to determine if they can be used for the creation of an arteriovenous dialysis access, lower extremity bypass graft, or coronary artery bypass graft.

Imaging Sequence:

1. Patient data demographics page.
2. Transverse gray scale images with and without compression of each of the following vessels:
 - Common femoral vein
 - Sapheno-femoral junction
 - Femoral vein – proximal, mid and distal
 - Popliteal vein
 - Greater Saphenous vein thigh – proximal, mid and distal (must obtain diameter)
 - Greater Saphenous vein calf – proximal, mid and distal (must obtain diameter)
 - Short saphenous vein – proximal, mid and distal (must obtain diameter)
 - Any areas of suspected thrombus
3. Long color and spectral Doppler with distal augmentation of each of the following vessels:
 - Common femoral vein
 - Mid Femoral vein
 - Popliteal vein

Exam is performed on bilateral lower extremity.