The area of interest is from mid thigh to mid calf, landmark to the knee joint. If performing on 3T MRI, use non-contrast MRA in all three positions.

**Bilateral T1 Axials (scan each side separately)**

Average Scanning Parameters:
- FOV: appropriate to size of patient
- 7 mm slice thickness
- 1 mm slice gap
- Approximately 46 slices

**T1 Coronal, T2 Fat Sat Coronal**

Average Scanning Parameters
- 400 mm FOV
- 4 mm slice thickness
- 1 mm slice gap
- Approximately 32 slices

Place the patient in the position that **does not** cause symptoms (either dorsi flexion or plantar flexion)

**Bilateral 2D TOF Axial**

Average Scanning Parameters:
- FOV: appropriate to size of patient
- 3 mm Slice thickness

Note: Scan these in an ascending direction and be absolutely sure that a tracking inferior sat band only is used for this sequence. We want to see the arteries only.
The 3D Coronal Contrast Enhanced Angiogram will be done two times, first with the patient in the position which causes symptoms (either dorsi flexion or plantar flexion of the feet) and then with the patient in a neutral position. Use sandbags and other positioning aids to help the patient maintain the dorsi and plantar flexed positions. A separate contrast injection is used for each angiogram. Use a single full dose of Multihance contrast up to a maximum of 15 ml for each injection. Each contrast injection should be followed by a 20 to 30 ml Saline flush.

3D Coronal Angiogram in the Position that causes symptoms Pre and Post Contrast

Average Scanning Parameters
400 mm FOV
1.5 mm slice thickness

3D Coronal Angiogram in the Neutral Position Pre and Post Contrast

Average Scanning Parameters
400 mm FOV
1.5 mm slice thickness

Note: Do not perform the pre contrast Neutral position Angiogram prior to the first Contrasted Angiogram. The pre contrast images done in the neutral position will show contrast enhancement in the arteries and veins from the first angiogram but the post contrast images will have far more arterial enhancement than the pre contrast images and this will allow the subtracted images to show only arterial enhancement (the veins will subtract out).