

# Arterial reports

## 1. 02/02/2024

### **Clinical history:**

bilateral foot infections, seen by vascular surgeon, felt to be vascular arterial in nature- requesting BL lower limb arterial doppler.

### **Report:**

Very challenging examination due to increased body habitus, overlying bowel gas, limited mobility and poor tolerance for ultrasound imaging due to pain on probe contact with skin. Suboptimal diagnostic accuracy of today's examination.

### Abdomen

Aorta - not visualised.

R. CIA - not visualised.

R. EIA - not visualised.

L. CIA - not visualised.

L. EIA - patent. Turbulent triphasic waveforms, PSV 225cm/s. ?Proximal stenosis.

### Right leg

CFA - not visualised

PFA origin - not visualised

SFA - patent. origin not visualised, seen from proximal thigh. Calcified and patent, ~50% stenosis mid-thigh (52 - 120cm/s). Monophasic waveforms, PSV 66cm/s distally.

POPA - patent. Monophasic waveforms, PSV 62cm/s.

TPT - not visualised

PTA - patent, only visualised at the distal calf just above the ankle. Continuous / hyperaemic monophasic waveforms, PSV 22cm/s.

PERA - not visualised

ATA - patent. Continuous / hyperaemic monophasic waveforms, PSV 46cm/s.

DPA - patent. Continuous / hyperaemic monophasic waveforms, PSV 38cm/s.

### Left leg

CFA - patent with moderate luminal reduction seen. Turbulent triphasic waveforms, PSV 270cm/s. ?Velocity increased by proximal stenosis or poorly visualised CFA stenosis.

PFA origin - patent. Tubulent triphasic waveforms, PSV 222cm/s.

SFA - patent and calcified, >75% stenosis mid-thigh (106 - 445cm/s). Triphasic waveforms proximally, monophasic waveforms beyond the stenosis, PSV 109cm/s distally.

POPA - patent. Continuous / hyperaemic monophasic waveforms, PSV 93cm/s.

TPT - not visualised.

PTA - patent, only visualised at the distal calf just above the ankle. Continuous / hyperaemic monophasic waveforms, PSV 45cm/s.

PERA - not visualised

ATA - patent. Continuous / hyperaemic monophasic waveforms, PSV 52cm/s.

DPA - patent. Continuous / hyperaemic monophasic hasic waveforms, PSV 48cm/s.

### **Conclusion:**

1. Challenging and suboptimal ultrasound investigation.
2. Non-visualised abdominal vessels. ?Aortoiliac disease.
3. Moderate right superficial femoral artery stenosis, severe left superficial femoral artery stenosis.
4. Continuous / hyperaemic monophasic two-vessel flow into both feet via dorsalis pedis and posterior tibial arteries.
5. Consider alternative imaging eg. CTA for further investigation.

## 2. 02/02/2024

### **Clinical history:**

bilat UL ischaemic sx, on nebido, previous constriction applied on both upper parts of both upper limbs.

### **Report:**

The upper limb arterial tree is widely patent from the proximal subclavian artery to the wrist with good triphasic waveforms, normal velocities and no significant restrictive disease noted throughout. The left brachial artery bifurcates just below the shoulder giving rise to brachio-radial and brachio-ulnar arteries that continue to the wrist. This does not appear to have any impact on perfusion to the hand.

[*Patient*] reports feeling the ischaemic symptoms when his arms are adducted and down by his sides (e.g. when carrying shopping bags) so a dynamic scan was performed to assess for thoracic outlet syndrome. There was no significant reduction in flow in either arm when the arm was adducted, raised 90 degrees out to the side, abducted to 180 degrees straight up in the air, or abducted upwards and posteriorly.

The waveforms did change from good triphasic to good biphasic bilaterally when the arms were abducted to 180 degrees, however the velocities remained normal and there was no evidence of significant proximal restriction.

### **Conclusion:**

1. No evidence of upper limb arterial insufficiency.
2. Unable to demonstrate presence of thoracic outlet syndrome today.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer

**3. 06/02/2024**

**Clinical history:**

bilat leg pains ?pad.

**Report:**

Non-aneurysmal abdominal aorta.

The lower limb arterial tree is widely patent bilaterally from aorta to ankle with good tri/biphasic waveforms and normal velocities.

No evidence of significant atherosclerotic or arteriosclerotic disease.

Good three-vessel run-off into both feet.

**Conclusion:**

- No evidence of PAD in either leg.

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer

**4. 06/02/2024**

**Clinical history:**

bilateral feet discomfort and coldness, no pedal pulses felt.

**Report:**

Abdomen

Aorta - no AAA, patent. Biphasic waveforms, PSV 102cm/s.

R. CIA - patent. Triphasic waveforms, PSV 117cm/s.

R. EIA - patent. Triphasic waveforms, PSV 101cm/s.

L. CIA - patent. Biphasic waveforms, PSV 102cm/s.

L. EIA - patent. Biphasic waveforms, PSV 74cm/s.

Right leg

CFA - patent with mild disease. Triphasic waveforms, PSV 96cm/s.

PFA origin - patent. Biphasic waveforms, PSV 70cm/s.

SFA - patent with mild diffuse disease. Triphasic waveforms, PSV 84cm/s distally.

POPA - patent. Triphasic waveforms, PSV 60cm/s.

TPT - patent. Biphasic waveforms, PSV 38cm/s.

PTA - patent and calcified. Biphasic waveforms, PSV 96cm/s.

PERA - patent and calcified. Biphasic waveforms, PSV 39cm/s.

ATA - patent and calcified. Biphasic waveforms, PSV 63cm/s.

DPA - patent. Biphasic waveforms, PSV 49cm/s.

Left leg

CFA - patent with mild disease. Biphasic waveforms, PSV 102cm/s.

PFA origin - patent with a ~50% stenosis at the origin. Triphasic waveforms, PSV 190cm/s.

SFA - patent and heavily calcified distally with a >50% stenosis in the mid-distal thigh (66 - 224cm/s). Monophasic waveforms distally, PSV 49cm/s.

POPA - Turbulent raised waveforms proximally suggestive of proximal stenosis (151cm/s) which was not seen due to calcification. Otherwise widely patent with monophasic waveforms, PSV 31cm/s.

TPT - patent. Monophasic waveforms, PSV 38cm/s.

PTA - patent and calcified - not seen mid-calf due to calcification. Monophasic waveforms, PSV 16cm/s.

PERA - patent and calcified proximally with biphasic waveforms, PSV 24cm/s. Not seen distally.

ATA - patent and calcified. Biphasic waveforms, PSV 32cm/s.

DPA - patent. Biphasic waveforms, PSV 31cm/s.

Conclusion:

Right leg - calcified lower limb arterial tree, no significant PAD noted. Three-vessel run-off into foot.

Left leg - calcified lower limb arterial tree with moderate stenosis in the mid-distal SFA and a possible additional stenosis in the distal SFA. Two-vessel run-off into foot via PTA and DPA.

Scanned and reported by Ben Warner-Michel CS21218

Clinical specialist ultrasonographer

## 5. 06/02/2024

### **Clinical history:**

bilateral calf claudication at 100 meter, DM, IHD.

### **Report:**

Very challenging scan due to heavy calcification of the lower limb arterial tree.

#### Abdomen

Aorta - patent, no AAA. Monophasic waveforms, PSV 85cm/s.

R. CIA - patent, >50% stenosis. Turbulent triphasic waveforms, PSV 266cm/s.

R. EIA - patent. Triphasic waveforms, PSV 122cm/s.

L. CIA - patent. Biphasic waveforms, PSV 100cm/s.

L. EIA - patent. Triphasic waveforms, PSV 188cm/s.

#### Right leg

CFA - patent. and calcified with mild disease. Biphasic waveforms, PSV 85cm/s.

PFA origin - patent and calcified. Biphasic waveforms, PSV 50cm/s.

SFA - patent and heavily calcified with diffuse disease throughout. >50% stenosis mid-thigh (77 - 182cm/s). Biphasic waveforms, PSV 120cm/s distally.

POPA - patent and calcified. Biphasic waveforms, PSV 29cm/s.

TPT - patent and calcified. Biphasic waveforms, PSV 30cm/s.

PTA - heavily calcified and challenging to visualise throughout. Monophasic waveforms seen prox, mid and distally, PSV 45cm/s at the ankle.

PERA - heavily calcified. Monophasic waveforms proximally (44cm/s), not seen distally.

ATA - heavily calcified and challenging to visualise throughout. Monophasic waveforms seen prox, mid and distally, PSV 22cm/s at the ankle.

DPA - no flow seen ?occluded.

#### Left leg

CFA - patent. and calcified with mild disease. Biphasic waveforms, PSV 105cm/s.

PFA origin - patent and calcified. Biphasic waveforms, PSV 50cm/s.

SFA - patent and heavily calcified with diffuse disease throughout. >50% stenosis mid-thigh (55 - 135cm/s). Biphasic waveforms, PSV 66cm/s distally.

POPA - patent and calcified. Biphasic waveforms, PSV 42cm/s.

TPT - patent and calcified. Biphasic waveforms, PSV 31cm/s.

PTA - heavily calcified and challenging to visualise throughout. Monophasic waveforms seen prox, mid and distally, PSV 26cm/s at the ankle.

PERA - heavily calcified. Monophasic waveforms proximally (39cm/s), not seen distally.

ATA - heavily calcified and challenging to visualise throughout. Monophasic waveforms seen prox, mid and distally, PSV 40cm/s at the ankle.

DPA - patent and heavily calcified. Monophasic waveforms, PSV 15cm/s.

#### Conclusion:

Right side: moderate stenoses within the common iliac and superficial femoral artery. Diffuse calcific disease with heavily calcified tibial vessels, one vessel-run-off into foot via posterior tibial artery.

Left side: moderate stenosis within the superficial femoral artery. Diffuse calcified disease with heavily calcified tibial vessels, two vessel run-off into foot via posterior tibial and dorsalis pedis arteries.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical specialist ultrasonographer

6. 07/02/2024

**Clinical history:**

rest pain and ischemic toes.

**Report:**

Abdomen

Aorta - not clearly seen. No obvious AAA.

R. CIA - not clearly seen.

R. EIA - patent. Biphasic waveforms, PSV 100cm/s.

L. CIA - not clearly seen.

L. EIA - patent. Biphasic waveforms, PSV 91cm/s.

Right leg

CFA - patent with mild disease. Biphasic waveforms, PSV 83cm/s.

PFA origin - patent. Biphasic waveforms, PSV 70cm/s.

SFA - patent. Biphasic waveforms, PSV 42cm/s distally.

POPA - patent. Biphasic waveforms, PSV 29cm/s.

TPT - patent. Biphasic waveforms, PSV 59cm/s.

PTA - patent and calcified. Monophasic waveforms, PSV 28cm/s.

PERA - patent and calcified. Monophasic waveforms, PSV 19cm/s.

ATA - calcified and occluded for a short segment mid-calf. Damped monophasic waveforms distally, PSV 15cm/s.

DPA - patent. waveforms, PSV 16cm/s.

Left leg

CFA - patent with mild intimal thickening. Biphasic waveforms, PSV 84cm/s.

PFA origin - patent. Biphasic waveforms, PSV 113cm/s.

SFA - patent with a critical stenosis mid-thigh (25 - 287cm/s). Biphasic to monophasic waveforms, PSV 14cm/s distally.

POPA - patent. Monophasic waveforms, PSV 18cm/s.

TPT - patent. Monophasic waveforms, PSV 26cm/s.

PTA - calcified and heavily diseased with very low flow. Damped monophasic waveforms, PSV 7cm/s.

PERA - patent and calcified. Damped monophasic waveforms, PSV 11cm/s.

ATA - patent and calcified. Damped monophasic waveforms distally, PSV 22cm/s.

DPA - patent. waveforms, PSV 23cm/s.

Conclusion:

Right leg: short-length mid-ATA occlusion, otherwise reasonable vessel patency with slightly damped flow and three-vessel monophasic run-off into foot.

Left leg: critical stenosis mid-SFA and heavily diseased PTA, otherwise reasonable vessel patency with damped three-vessel monophasic run-off into foot.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical specialist ultrasonographer

7. 09/02/2024

**Clinical history:**

lower limb cellulitis, DP PT pulses not palpables both feet, cool to touch. suggested by vascular cons.

**Report:**

Abdominal vessels not imaged as David had a CT-CAP yesterday.

The common femoral, profunda femoris origin, superficial femoral and popliteal arteries are widely patent bilaterally with good triphasic waveforms and reasonable velocities.

The calves could not be imaged due to bandages.

The distal posterior tibial and dorsalis pedis arteries are widely patent bilaterally with good triphasic waveforms and reasonable velocities.

Arrhythmia noted.

**Conclusion:**

1. No evidence of arterial insufficiency in either leg. Good flow into both feet seen below bandages.
2. Arrhythmia.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer

**8. 13/02/2024**

**Clinical history:**

bilateral calf claudication at 3-5 minutes ? cause.

**Report:**

Abdomen

Aorta - patent. Triphasic waveforms, PSV 70cm/s.

R. CIA - patent, poorly visualised proximally. Turbulent triphasic waveforms, PSV 224cm/s - suggestive of proximal stenosis.

R. EIA - patent, >50% stenosis distally (153 - 346cm/s). Triphasic waveforms.

L. CIA - patent, poorly visualised proximally. Turbulent triphasic waveforms, PSV 378cm/s - suggestive of proximal stenosis.

L. EIA - patent, >50% stenosis distally (145 - 348cm/s). Triphasic waveforms.

Right leg

CFA - patent with mild intimal thickening. Triphasic waveforms, PSV 129cm/s.

PFA origin - patent. Triphasic waveforms, PSV 142cm/s.

SFA - patent with a >50% stenosis mid-thigh (125 - 393cm/s). Triphasic waveforms, PSV 60cm/s distally.

POPA - patent. Triphasic waveforms, PSV 83cm/s.

TPT - patent. Triphasic waveforms, PSV 40cm/s.

PTA - patent. Pulsatile monophasic waveforms, PSV 77cm/s.

PERA - patent, not seen distally. Monophasic waveforms, PSV 29cm/s.

ATA - patent. Pulsatile monophasic waveforms, PSV 54cm/s.

DPA - patent. Pulsatile monophasic waveforms, PSV 63cm/s.

Left leg

CFA - patent with mild disease. Triphasic waveforms, PSV 157cm/s.

PFA origin - patent. Triphasic waveforms, PSV 145cm/s.

SFA - occludes for ~10cm from the proximal to mid-thigh. Monophasic waveforms beyond, PSV 40cm/s distally.

POPA - patent. Monophasic waveforms, PSV 59cm/s.

TPT - patent. Monophasic waveforms, PSV 47cm/s.

PTA - patent. Pulsatile monophasic waveforms, PSV 50cm/s.

PERA - patent, not seen distally. Monophasic waveforms, PSV 44cm/s.

ATA - occludes for ~5-10cm from mid to distal calf. Damped monophasic waveforms distally, PSV 16cm/s.

DPA - not clearly seen.

Conclusion:

Right leg: tandem stenoses noted within the common iliac, external iliac and superficial femoral artery. Two-vessel run-off into foot.

Left leg: tandem stenoses noted within the common and external iliac arteries; segmental occlusions within the superficial femoral and anterior tibial arteries. Single-vessel run-off into foot. No rest pain.

Scanned and reported by Ben Warner-Michel CS21218

Clinical specialist ultrasonographer



9. 15/02/2024

**Clinical history:**

numbness and parasthesia right leg and describes visible painful veins at times - nil seen today.  
exclude pvd and truncal reflux in leg

**Report:**

The lower limb arterial tree is widely patent from the proximal abdominal aorta to the right ankle with good tri/biphasic waveforms and normal velocities. No evidence of peripheral arterial disease seen.  
Three-vessel run-off into right foot.

**Conclusion:**

No evidence of peripheral arterial disease.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer

**Clinical history:**

numbness and parasthesia right leg and describes visible painful veins at times - nil seen today.  
exclude pvd and truncal reflux in leg

**Report:**

The deep and superficial veins of the right leg are widely patent and fully competent.  
No incompetent perforators or prominent superficial branches noted.

**Conclusion:**

No evidence of deep or superficial venous insufficiency.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer

**10. 15/02/2024**

**Clinical history:**

Dorderline DM, bilateral significant venous hypertension skin changes + recurrent cellulitits to left leg + VV.

**Report:**

The lower limb arterial tree is widely patent bilaterally from aorta to ankle with good tri/biphasic waveforms above the knee and good pulsatile monophasic waveforms in the tibial arteries. Three-vessel run-off into both feet.

**Conclusion:**

No evidence of significant peripheral arterial disease.

11. 21/02/2024

**Clinical history:**

iliac angioplasty at STG, recurrent symptoms within weeks.

**Report:**

Challenging abdominal imaging due to patient habitus. Subaneurysmal dilatation of the distal abdominal aorta measuring 2.8cmAP. The right common iliac artery was poorly visualised but appears patent with collateralisation noted into the right internal iliac artery.

The right external iliac artery stent appears occluded today. Very low damped flow noted within the stent suggestive of possible channel flow, however this may be artefactual. The external iliac artery refills distal to the end of the stent via a superior collateral just above the femoral head.

There is a >50% stenosis in the distal common femoral artery. The superficial femoral, popliteal and tibioperoneal truncal arteries are widely patent with monophasic waveforms.

Limited assessment of the tibial arteries however all three vessels are patent at the ankle with damped monophasic waveforms in the peroneal and posterior tibial arteries and biphasic waveforms in the anterior tibial artery.

No rest pain reported.

**Conclusion:**

Occluded / suboccluded right external iliac artery stent with tandem distal common femoral artery stenosis.

Damped three vessel run-off into foot.

**FURTHER ACTION REQUIRED**

It remains the responsibility of the referring clinician to ensure that the appropriate action is taken as a result of this report.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer

**12. 22/02/2024**

**Clinical history:**

Klippel-Trenaunay syndrome. Prominent veins R calf & buttock. ?PAD / reflux

**Arterial report:**

The right lower limb arterial tree is widely patent from aorta to ankle with mild calcification and diffuse mild atherosclerosis, but no significant peripheral arterial disease and good tri/biphasic waveforms. Three-vessel outflow into the foot. Non-aneurysmal abdominal aorta.

**Conclusion:**

No evidence of significant peripheral arterial disease.

**Venous report:**

The deep and superficial veins of the right leg are widely patent and fully competent. No incompetent perforators or prominent superficial branches noted.

**Conclusion:**

No evidence of deep or superficial venous insufficiency.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer

**13. 22/02/2024**

**Clinical history:**

leg pains, unable to feel pulses.

**Report:**

Non-aneurysmal abdominal aorta. Poorly visualised abdominal vessels due to habitus and bowel gas.

Bilaterally elevated velocities within both common iliac arteries suggestive of CIA origin stenosis.

The right lower limb arterial tree is widely patent with mild atherosclerotic disease and no significant stenoses. Mildly calcified tibial vessels. Biphasic outflow in posterior tibial and anterior tibial/dorsalis pedis arteries, and monophasic outflow in the peroneal artery.

There is a 61 x 16 x 61mm avascular cystic collection behind the right knee - dedicated MSK USS advised if appropriate.

There is a >75% stenosis in the mid-left popliteal artery. Otherwise the left lower limb arterial tree is widely patent with mild atherosclerotic disease. Mildly calcified tibial vessels. Biphasic outflow in posterior tibial and anterior tibial/dorsalis pedis arteries, and monophasic outflow in the peroneal artery.

**Conclusion:**

Possible bilateral common iliac artery origin stenoses. Tight left popliteal artery stenosis.

Reasonable three-vessel outflow into feet bilaterally with no evidence of critical limb ischaemia.

Right popliteal fossa cystic collection – MSK USS advised.

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer

14. 28/02/2024

**Clinical history:**

Medial thigh VVs on L (??AVM), less so on R..

**Report:**

**Arterial:**

The lower limb arterial tree is widely patent bilaterally from aorta to ankle with no atherosclerotic disease and good triphasic waveforms.

No evidence of AVM.

**Venous:**

Right leg

The great saphenous vein is competent from the saphenofemoral junction to the mid-distal thigh approx 10-15cm above the knee, where an incompetent posteromedial branch drains into the GSV. This branch arises from an incompetent posterior thigh perforator approx 5cm above the knee crease. The GSV is incompetent beyond, giving off multiple small anterior and posterior branches in the calf, and the reflux drains into an anteromedial branch mid-calf which subsequently drains into a competent medial perforator. The GSV is competent beyond this point.

The small saphenous vein and deep veins are competent.

Left leg

The saphenofemoral junction is competent. The great saphenous vein becomes incompetent just below the SFJ via a small incompetent pelvic vein. The GSV superficialises mid-thigh, and the reflux drains into an incompetent tortuous anterolateral vein that courses along the anterior knee and rejoins the GSV via a cluster of varices in the mid-calf. The GSV becomes incompetent again below this point. An incompetent anterolateral superficial vein arises from the cluster of varices in the mid-calf.

The small saphenous vein and deep veins are competent.

No appreciable connections were demonstrated between the arterial or venous systems, and no arterialisised venous flow was noted throughout either leg.

Please see attached diagram for further information and venous calibres.

**Conclusion:**

Unremarkable arterial scan. No evidence of AVM.

Right GSV reflux stemming from an incompetent posterior distal thigh perforator, which feeds VVs in the proximal calf.

Left GSV reflux stemming from an incompetent pelvic vein, which feeds VVs in the distal thigh and mid-calf.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer

15. 28/02/2024

**Clinical history:**

right leg discoloration/ swelling ? cause , has weak DPA compared to the other side and no PTA.

**Report:**

The lower limb arterial tree is widely patent from aorta to ankle with no atherosclerotic disease seen, and good triphasic waveforms throughout.

**Conclusion:**

No evidence of peripheral arterial disease.

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer

**Clinical history:**

right leg discoloration / swelling ? cause , has weak DPA compared to the other side and no PTA.

**Report:**

The deep and superficial veins are all patent and competent with no varices or reflux seen.  
No incompetent perforators noted.

No diagram produced for this examination as there are no incompetent veins noted.

**Conclusion:**

No evidence of deep or superficial insufficiency.

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer

16. 12/03/2024

**Clinical history:**

claudication.

**Report:**

Abdomen

Aorta - patent. Triphasic waveforms, PSV 80cm/s.

L. CIA - patent, 14mm calcific plaque at the origin forming >50% stenosis. waveforms, PSV 267cm/s.

L. EIA - patent. Triphasic waveforms, PSV 116cm/s.

Left leg

CFA - patent with intimal thickening and mild disease. Triphasic waveforms, PSV 77cm/s.

PFA origin - patent, >50% stenosis at the origin. Triphasic waveforms, PSV 177cm/s.

SFA - patent with diffuse disease, and a >50% stenosis mid-distally (61 - 156cm/s). Triphasic to monophasic waveforms, PSV 14cm/s distally.

POPA - patent with 18mm hypoechoic/soft plaque proximally forming >90% stenosis (40 - 432cm/s). Monophasic waveforms, PSV 66cm/s distally.

TPT - patent. Monophasic waveforms, PSV 40cm/s.

PTA - patent. Damped monophasic waveforms, PSV 12cm/s.

PERA - patent. Monophasic waveforms, PSV 18cm/s.

ATA - patent. Damped monophasic waveforms, PSV 26cm/s.

DPA - patent. Damped monophasic waveforms, PSV 20cm/s.

Conclusion:

>50% proximal left common iliac artery stenosis

>50% mid-distal superficial femoral artery stenosis

>90% proximal popliteal artery stenosis

Damped three-vessel run-off

Scanned and reported by Ben Warner-Michel CS21218

Clinical specialist ultrasonographer



**17. 12/03/2024**

**Clinical history:**

left leg claudication, no pulses.

**Report:**

The lower limb arterial tree is heavily calcified from aorta to ankle.

The aortoiliac arteries are patent with monophasic waveforms. No significant arterial disease however the common iliac artery was poorly visualised.

There is a 22mm length of irregular calcified plaque extending from the distal common femoral artery into the proximal superficial femoral artery causing a >75% stenosis (43 - 252cm/s). The superficial femoral artery is patent and heavily diseased throughout with monophasic waveforms, but no significant stenosis seen mid-distally.

The popliteal artery and tibioperoneal trunk are patent and calcified with monophasic waveforms. The anterior tibial artery occludes in the proximal calf. The distal anterior tibial artery and dorsalis pedis arteries appear occluded.

The posterior tibial artery is patent mid-distally with damped monophasic waveforms, and appears occluded below the ankle

The peroneal artery could not be clearly visualised.

**Conclusion:**

1. Tight superficial femoral artery origin stenosis and heavily diseased superficial femoral artery.
2. No flow seen into the foot – *[Patient]* reports no rest pain at present. Suggest urgent further imaging.

**FURTHER ACTION REQUIRED**

It remains the responsibility of the referring clinician to ensure that the appropriate action is taken as a result of this report.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer

**18. 12/03/2024**

**Clinical history:**

ache leg reasonable pulses, ?any stenotic disease pse.

**Report:**

The lower limb arterial tree is widely patent from the aorta to the right ankle with good triphasic waveforms throughout. Three-vessel run-off into the foot.

**Conclusion:**

No evidence of right lower limb peripheral arterial disease.

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer

**19. 28/03/2024**

**Clinical history:**

smoker, leg pain and wound right shin. cant feel pulses, ? PVD

**Report:**

The aortoiliac vessels are patent with elevated velocities (216cm/s right / 192cm/s left).

There is a >50% stenosis at the right profunda femoris origin. The right superficial femoral artery is occluded from the origin to the distal thigh, where it recanalises with monophasic waveforms. The popliteal artery, tibioperoneal trunk and peroneal artery (31cm/s) are patent with monophasic waveforms. Short occlusions are noted at the origins of the posterior and anterior tibial arteries, which are patent throughout the remainder of the calf with retrograde flow above the distal calf and monophasic antegrade flow at the ankle (7cm/s DPA, 20cm/s PTA).

The left common femoral artery is diseased with dense plaque forming a ~65% stenosis visually, although no significant velocity increase was noted at this point. Diffuse atherosclerotic disease is noted throughout the superficial femoral artery. The popliteal artery, tibioperoneal trunk and peroneal artery (61cm/s) are widely patent with biphasic waveforms. The posterior tibial artery is occluded from just below the origin to the distal calf, where it refills with biphasic waveforms at the ankle (58cm/s). There is a >75% stenosis within the distal anterior tibial artery, which is patent distally with monophasic waveforms into the dorsalis pedis artery (15cm/s).

See diagram for further details.

**Conclusion:**

Right superficial femoral artery occlusion.

Segmental tibial artery occlusion bilaterally with three vessel run-off into both feet (L > R).

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer

**20. 28/03/2024**

**Clinical history:**

left leg cramps and pain. known pvd right calf ? cause pain left leg

**Report:**

The lower limb arterial tree is widely patent from the aorta to the tibioperoneal trunk, with mild atherosclerosis of the common femoral artery.

There are two short segmental occlusions of the proximal and mid anterior tibial artery, which is patent distally with biphasic waveforms into the dorsalis pedis (37cm/s).

The posterior tibial artery is patent with biphasic waveforms at the ankle (91cm/s).

The peroneal artery is patent with monophasic waveforms proximally (24cm/s) and was not seen distally.

See diagram for further details.

**Conclusion:**

Segmental proximal ATA occlusion, two-vessel run-off with biphasic waveforms.

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer

**21. 17/04/2024**

**Clinical history:**

bilateral lower legs swelling + signifncat venous hypertension skin changes.

**Report:**

The lower limb arterial tree is widely patent from groin to ankle with triphasic waveforms and three-vessel run-off.

**Conclusion:**

No evidence of lower limb PAD bilaterally.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer

**22. 18/04/2024**

**Clinical history:**

ulceration and rest pain both legs.

**Report:**

Limited abdominal views due to patient habitus and overlying gas.

Mild atherosclerotic disease at both common femoral arteries forming <50% stenosis.

The lower limb arterial tree is otherwise widely patent from groin to calf with good biphasic waveforms.

Limited views of the proximal tibial arteries due to oedema, however all three vessels are patent distally in both legs with biphasic waveforms and good flow seen into the feet.

**Conclusion:**

No evidence of significant PVD. Please see attached diagram for further details.

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer

**23. 18/04/2024**

**Clinical history:**

right leg swelling, chronic, needs stockings, but is heavy smoker, and could not feel pedal pulses.

**Report:**

Challenging examination due to patient habitus and lower limb oedema.

Unable to visualise abdominal vessels clearly due to overlying bowel gas.

The right external iliac artery is patent with elevated velocities (210cm/s) and turbulent triphasic waveforms, suggestive of proximal disease.

The femoropopliteal arteries appear widely patent with good pulsatile monophasic waveforms.

The tibial arteries were not visible proximally due to oedema however there is good three-vessel run-off into the foot with good pulsatile monophasic waveforms.

[*Patient*] reports similar symptoms in the left leg - the left posterior and anterior tibial arteries are patent below the ankle with good pulsatile monophasic waveforms.

**Conclusion:**

No evidence of severe PVD. Possible moderate right iliac stenosis.

Please see attached diagram for details.

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer

**24. 31/04/2024**

**Clinical history:**

Bilateral leg swelling. Unable to palpate distal pulses (likely because of swelling)..

**Report:**

***Very challenging scan due to increased patient habitus, leg size and extensive subcutaneous oedema. Subdiagnostic imaging obtained.***

Limited examination performed. Triphasic waveforms with good velocities recorded within the femoral artery, popliteal artery, distal posterior tibial artery and distal anterior tibial artery bilaterally.

**Conclusion:**

No evidence of significant peripheral arterial insufficiency.

Please see attached diagram for further details.

Scanned and reported by Ben Warner-Michel CS21218

Clinical Specialist Ultrasonographer



**25. 31/04/2024**

**Clinical history:**

heavy aching legs, venous skin change right ankle, previous pelvic vein embolisation, reduced ABPI.

**Report:**

The lower limb arterial tree is widely patent from aorta to ankle with triphasic waveforms throughout. Mild intimal thickening noted within the right common femoral artery.

**Conclusion:**

No evidence of peripheral arterial disease.

Scanned and reported by Ben Warner-Michel CS21218  
Clinical Specialist Ultrasonographer