

Indications:

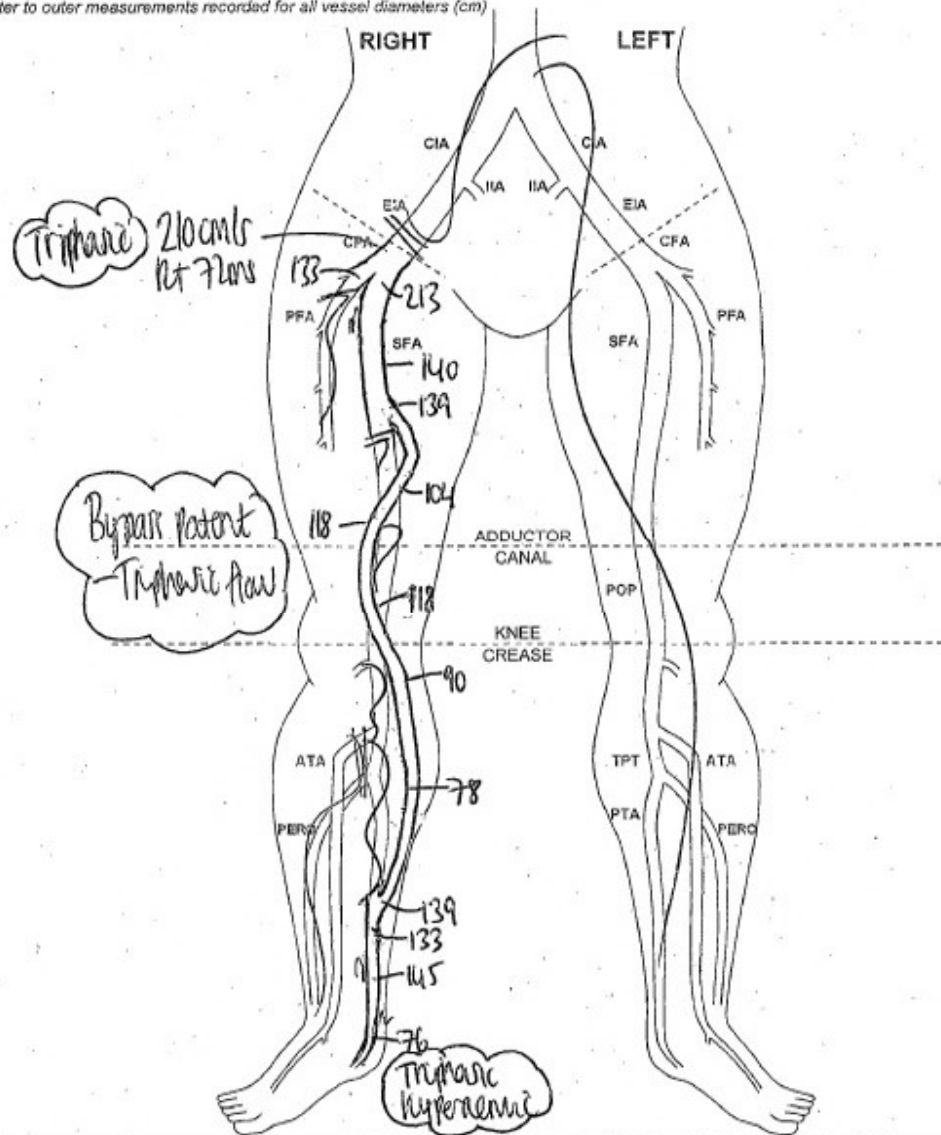
Consultant: G. Gibbs

R fem - PTA bypass - post op check

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



Comments:

Patent fem - PTA bypass with triphasic flow  
Triphasic hyperaemic flow in the distal PTA

## Indications:

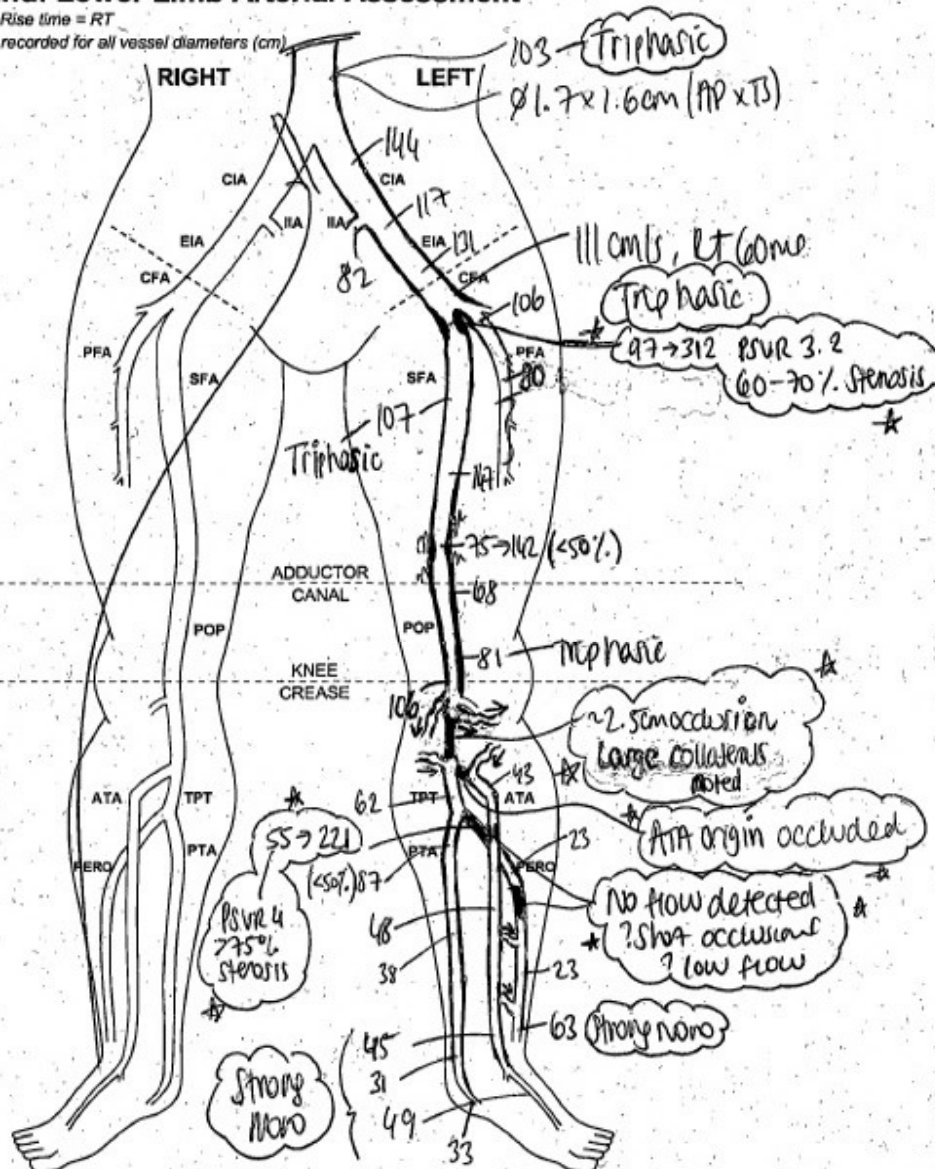
Consultant JAFFER

Known arterial disease ? progression

## Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



## Comments:

- SFA origin 60-70% stenosis
- Distal popliteal ~2.5 cm long occlusion - large collaterals noted
- ATA origin occluded. ATA >75% stenosis in prox calf
- Peroneal 2 x short areas no flow detected ? Short occlusion ? low flow

Indications:

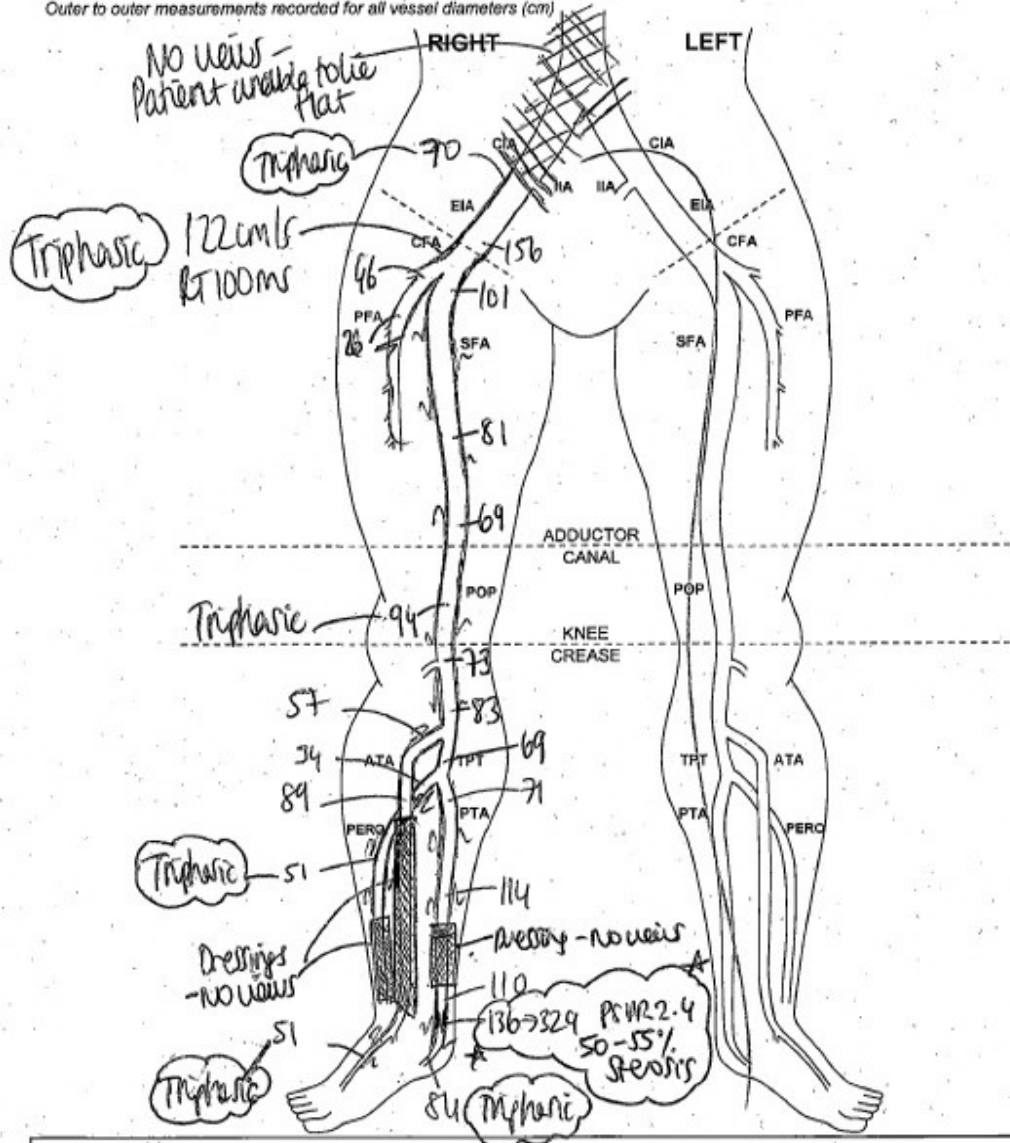
Consultant *Shaltroub*

*R leg ulcers - Check patency of arteries*

**Duplex Ultrasound: Lower Limb Arterial Assessment**

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



Comments:

• No ulcers of Aorta or common iliac artery - patient unable to lie flat.

Indications:

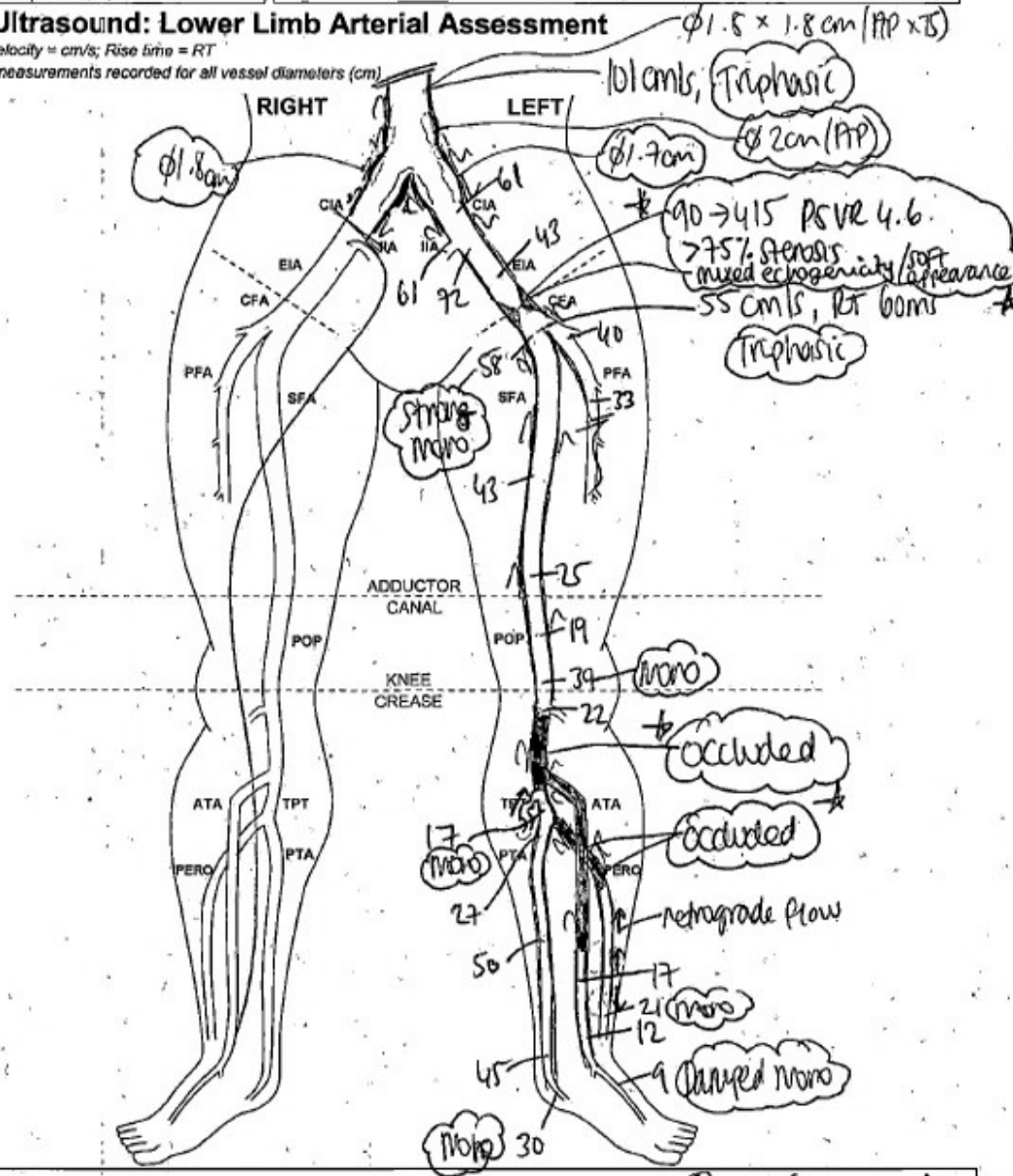
Worsening L leg claudication

Consultant RGA

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



Comments:

① CIA max diameter 1.7 cm  
Very distal EIA / prox CFA >75% stenosis. Soft/mixed echogenic plaque appearance  
Distal popliteal occlusion - collateral restore TPT. Patent PTA  
② CIA 1.8 cm max diameter

Indications:

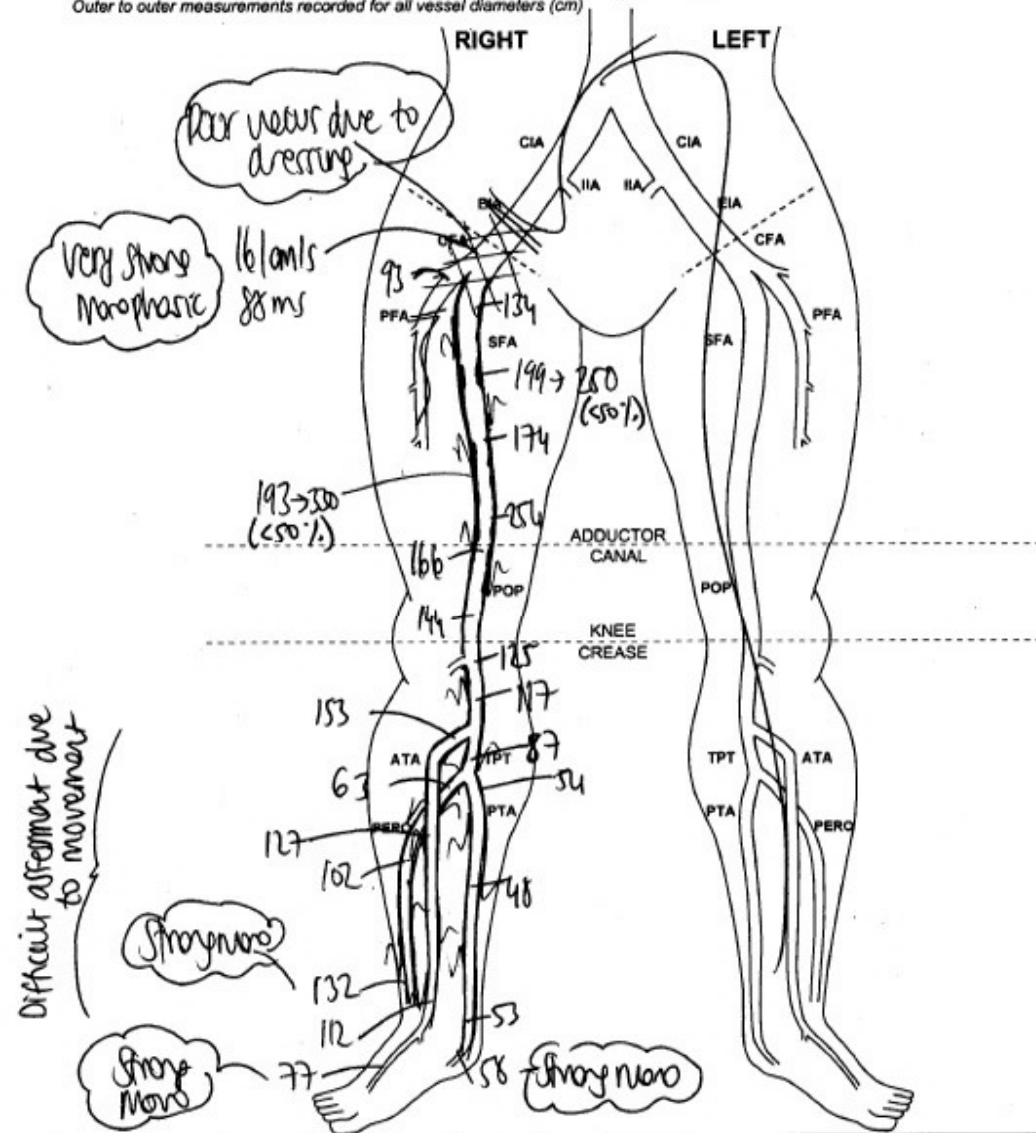
Consultant: SHAFI HUSSAIN

R STA thrombectomy for ALI. Post-op check

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



Comments:

- Difficult assessment due to patient movement throughout scan
- Poor views in the groin due to dressings - CFA, PFA origin, SFA origin patent
- Patent arteries of the Right leg - very strong monophasic flow throughout

Indications:

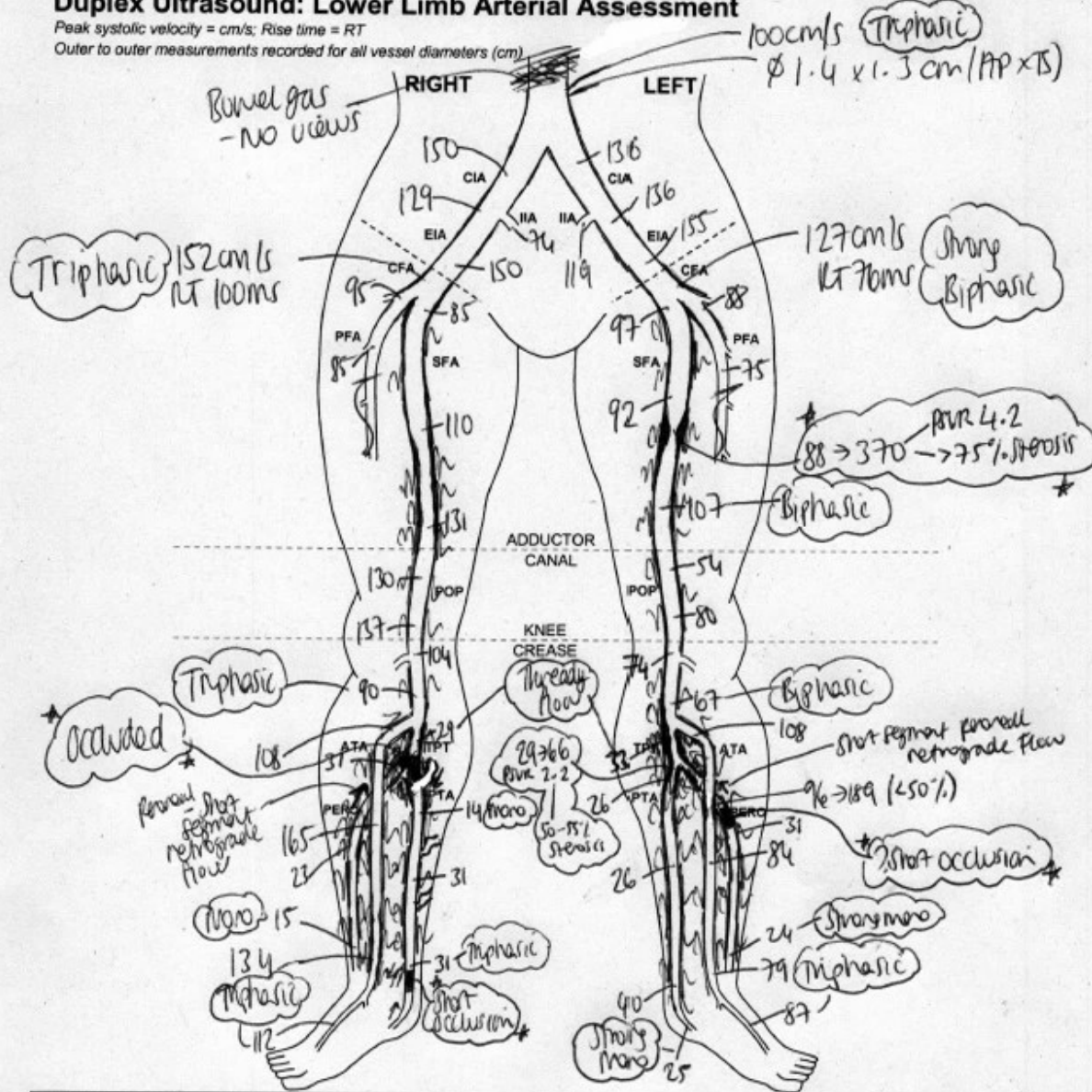
Consultant *RGA*

*Bilateral claudication*

**Duplex Ultrasound: Lower Limb Arterial Assessment**

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



**Comments:**

Aorto-iliacs patent - triphasic flow

① PTA + Peroneal arteries appeared occluded. Numerous collaterals noted.

Indications:

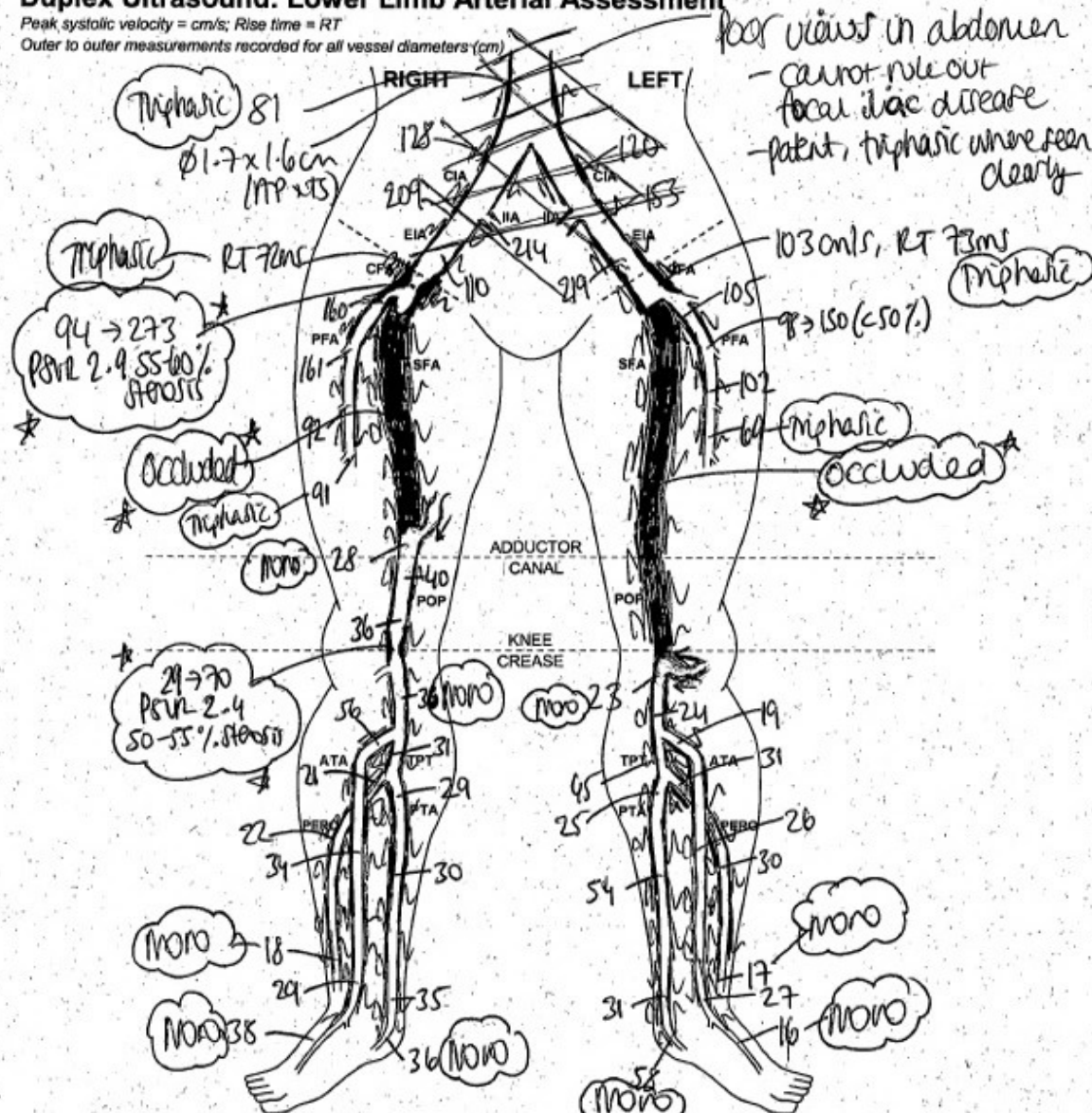
Bilaterally - reduced resting ABPI's

Consultant **DAVIES**

**Duplex Ultrasound: Lower Limb Arterial Assessment**

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



**Comments:** Poor views in abdomen - Triphasic flow where seen  
 ① CFA 55-60% stenosis. SFA occlusion. Popliteal 50-55% stenosis.

Indications:

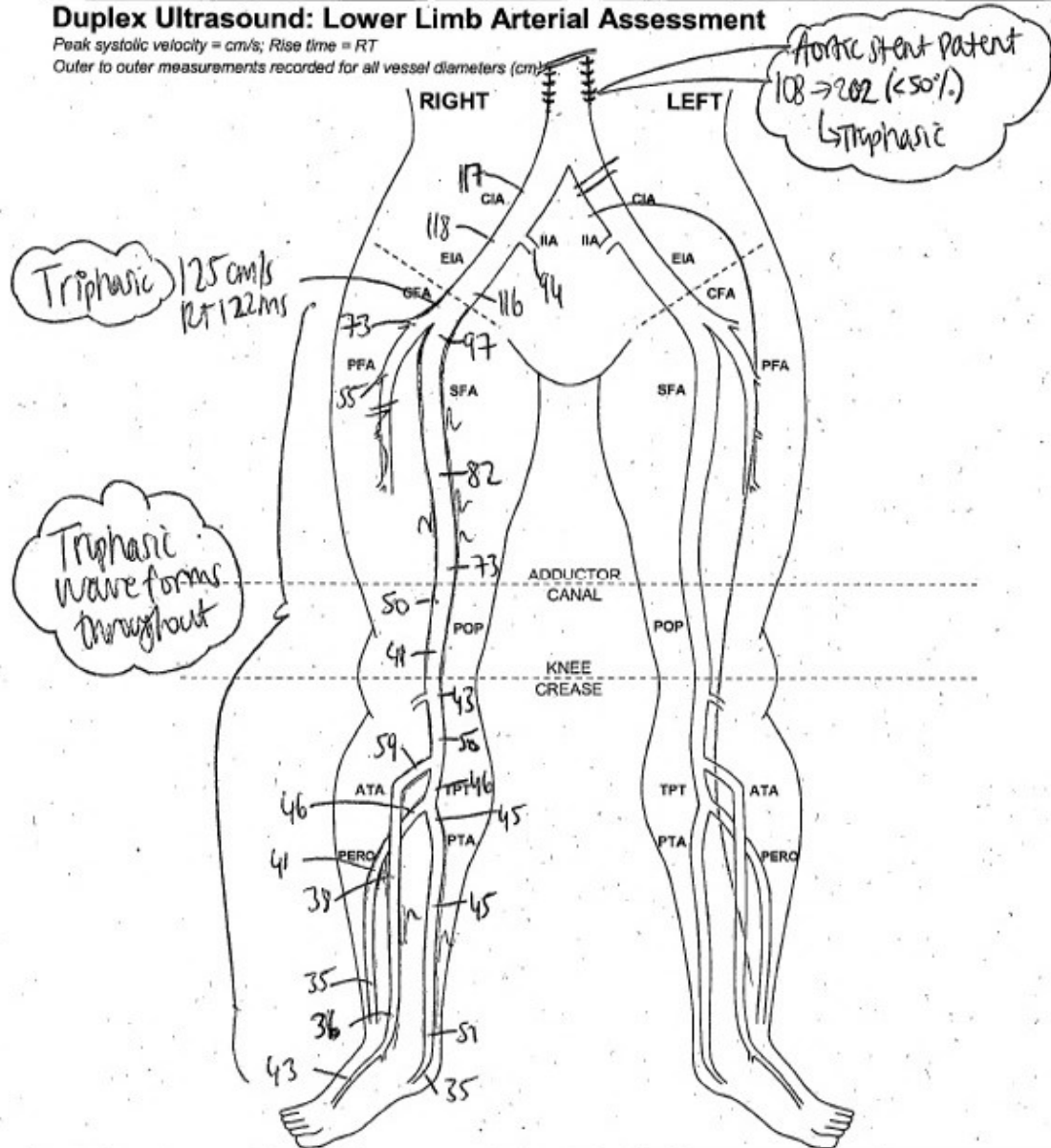
Aortic stent. R leg pain

Consultant RGA

**Duplex Ultrasound: Lower Limb Arterial Assessment**

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



Comments:

• Aortic stent patent - no significant stenosis

Indications:

Consultant

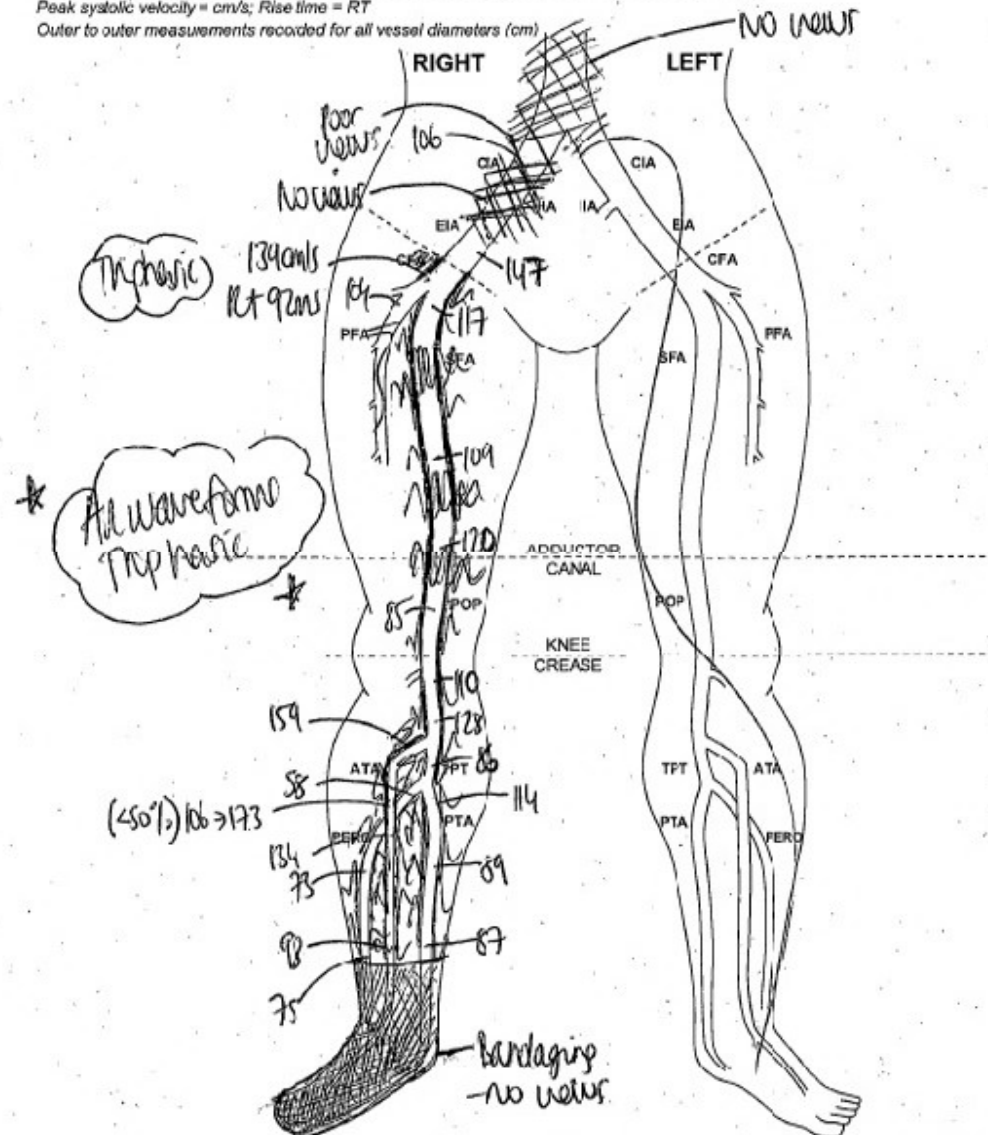
Shalhoub

R diabetic foot infection - not healing  
Hallux amputation

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



Comments:

- widespread calcification
- Where seen, patent arteries of the right leg with triphasic flow

Indications:

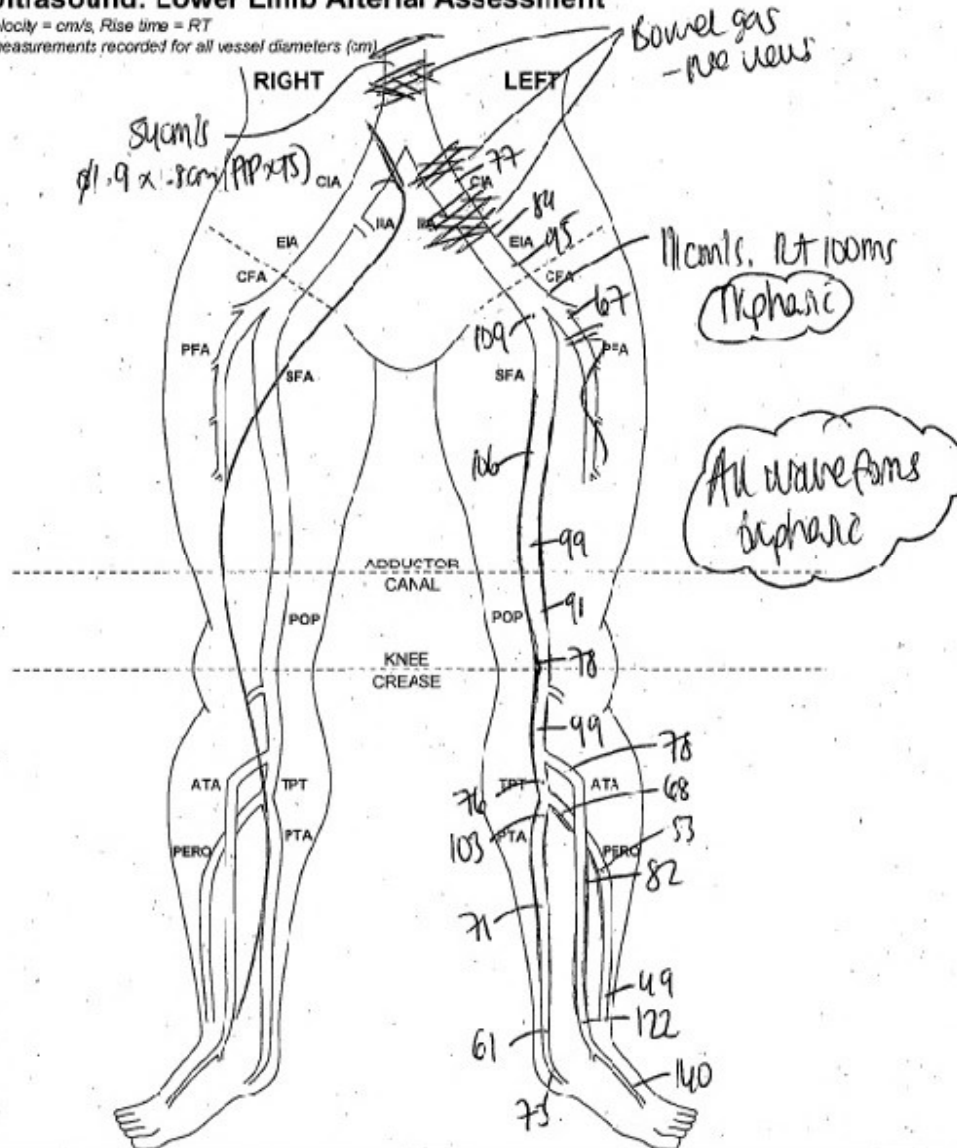
No previous scan.

Consultant JAFFER

**Duplex Ultrasound: Lower Limb Arterial Assessment**

Peak systolic velocity = cm/s, Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



Comments:

Patent arteries of the left leg with triphasic flow

Indications:

Consultant

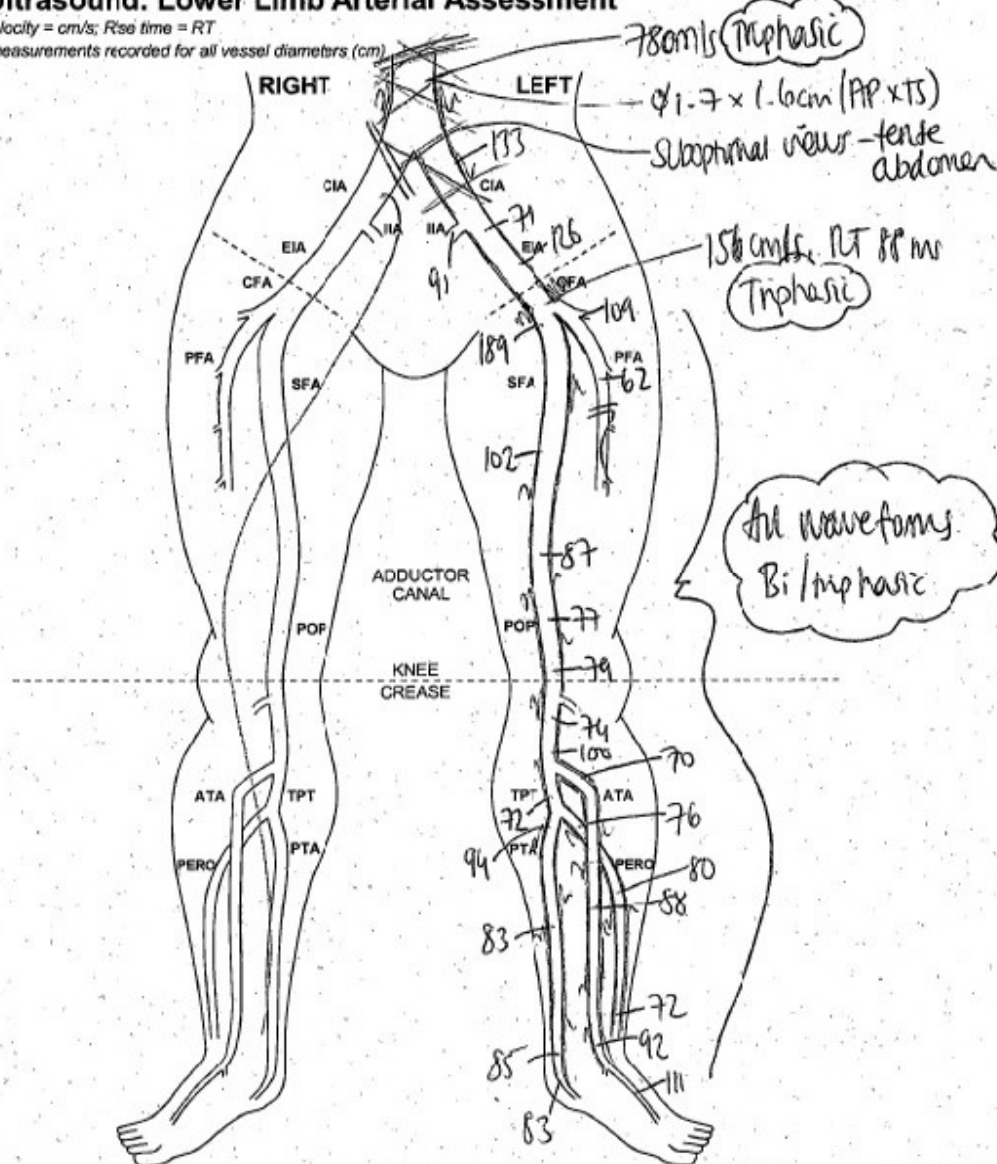
RIGA

Black spot on left toe

**Duplex Ultrasound: Lower Limb Arterial Assessment**

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)

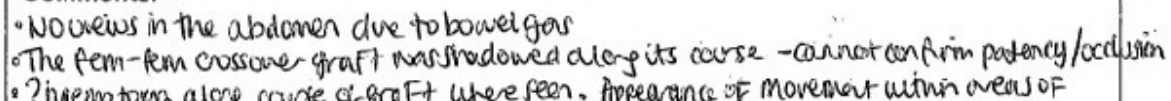


**Comments:**

- Suboptimal views of the aorta + CIA due to tense abdomen
- Distal to aorta of the left leg with bi/triphasic flow throughout

## Emergency fem-fem Crossover and Riliac Feeding

Outer to outer measurements recorded for all vessel diameters (cm)



Indications:

L groin Cheek

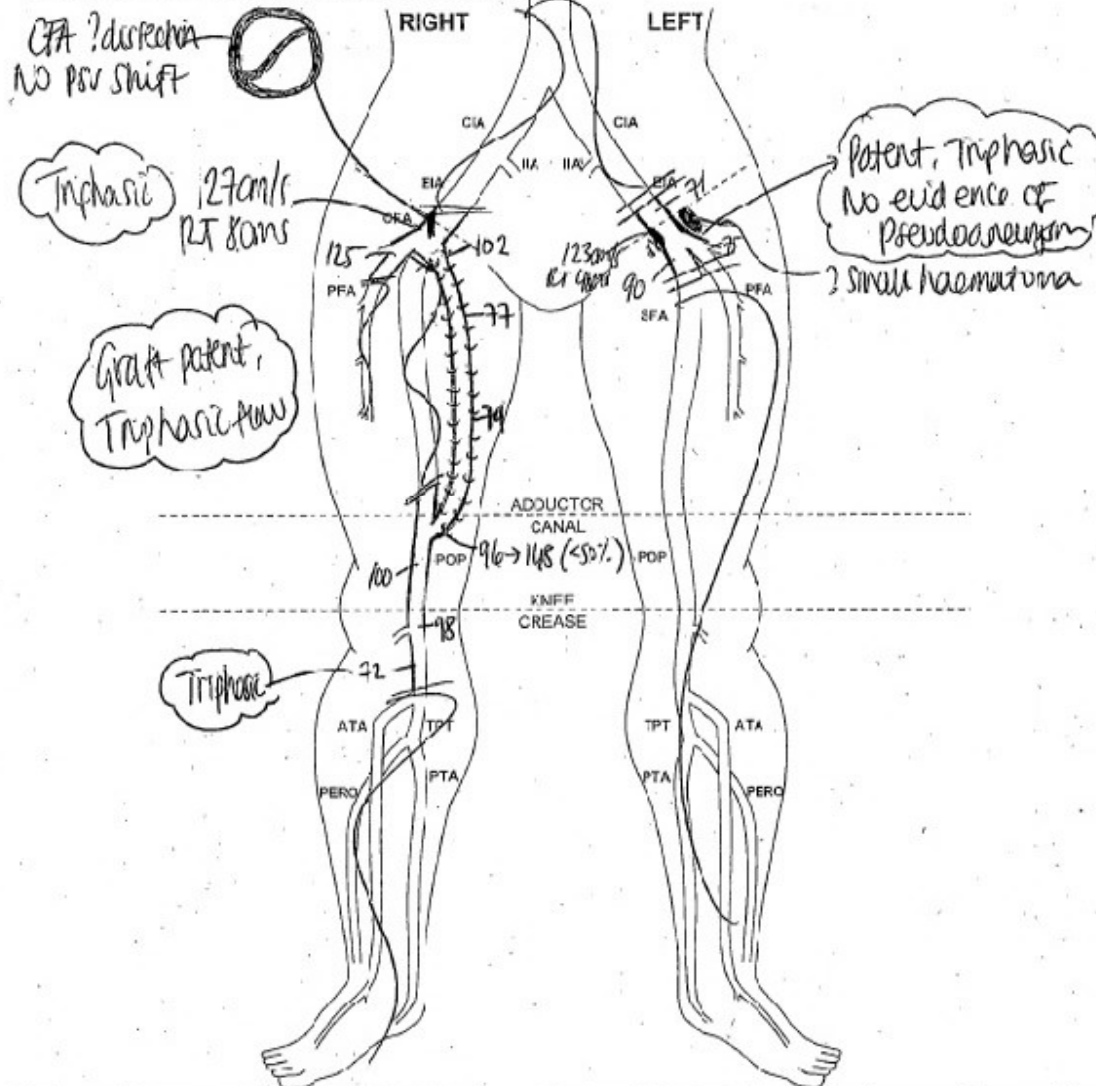
R fem-pop bypass - post thrombolysis

Consultant Gibbs

**Duplex Ultrasound: Lower Limb Arterial Assessment**

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



**Comments:**

① fem-pop bypass widely patent - triphasic flow

CFA ? dissection - no PSV shift

Indications:

L CFA endarterectomy June. Worsening right Pain

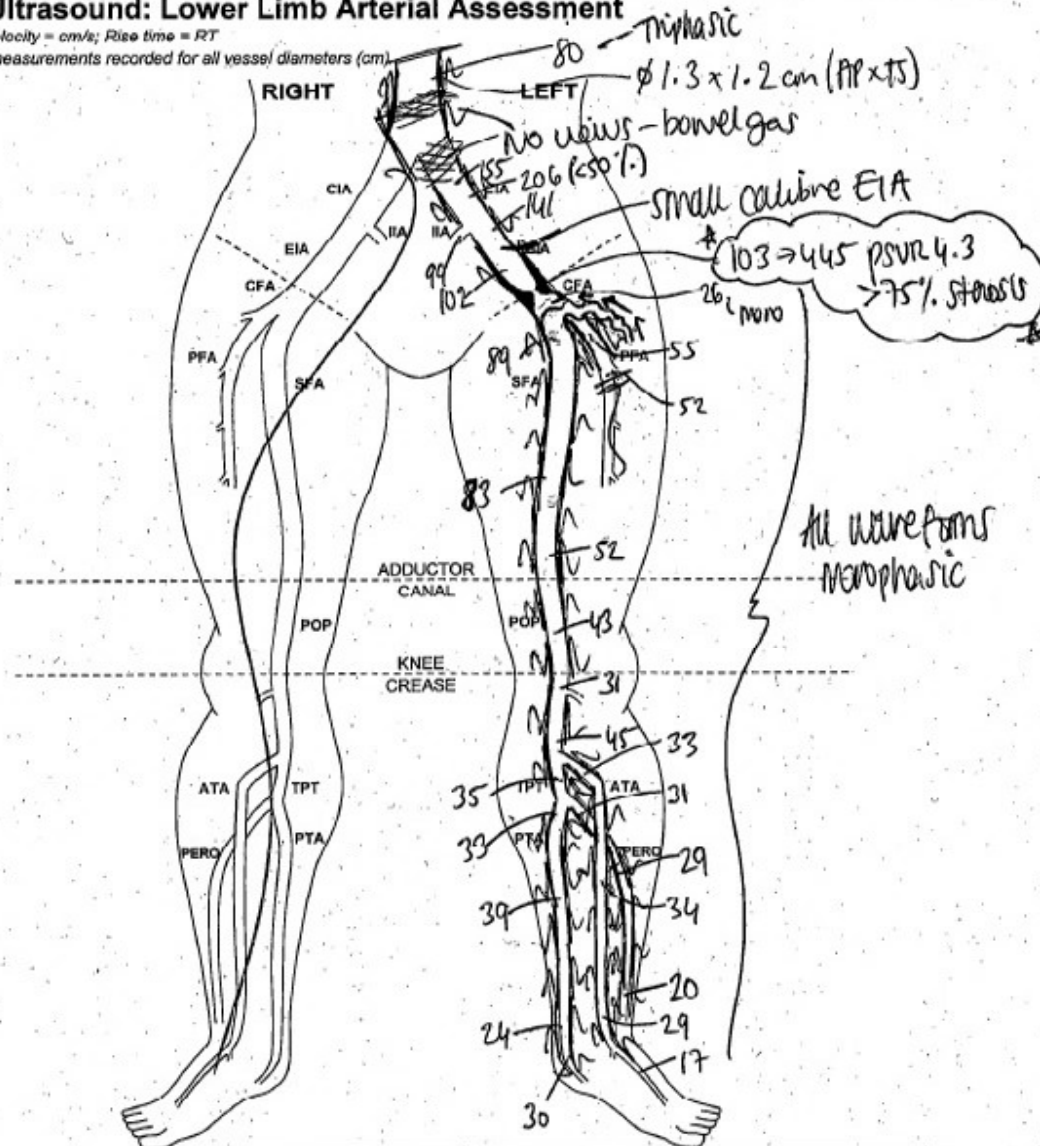
Consultant

Bicknell

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



- Comments:
- CFA remains patent post-endarterectomy
  - Distal EIA/prox CFA > 75% stenosis
  - large collateral branch into SFA origin
  - SFA, popliteal, PTA, PTA + peroneal patent, monophasic flow

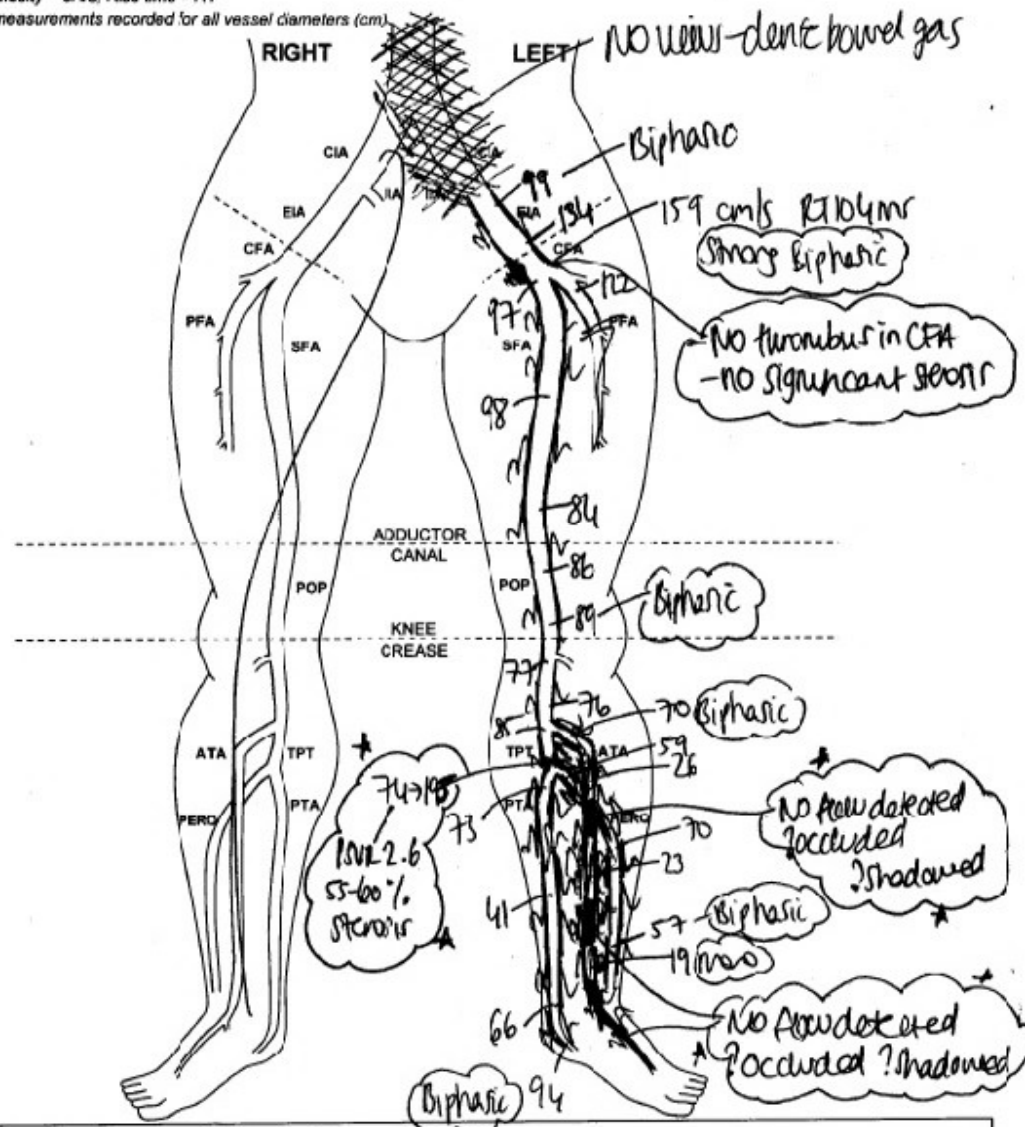
Clinical Vascular Scientist: M. A. D. AVS: Yes/No Date: 23/8/21

Oct 2020 federal unions ? resolution

LONG

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm).



Comments: Poor abdominal view

- CFA - no tubercles identified, no significant stenosis
- CFM and basal biopsies

Indications:

L Fem-pop bypass surveillance

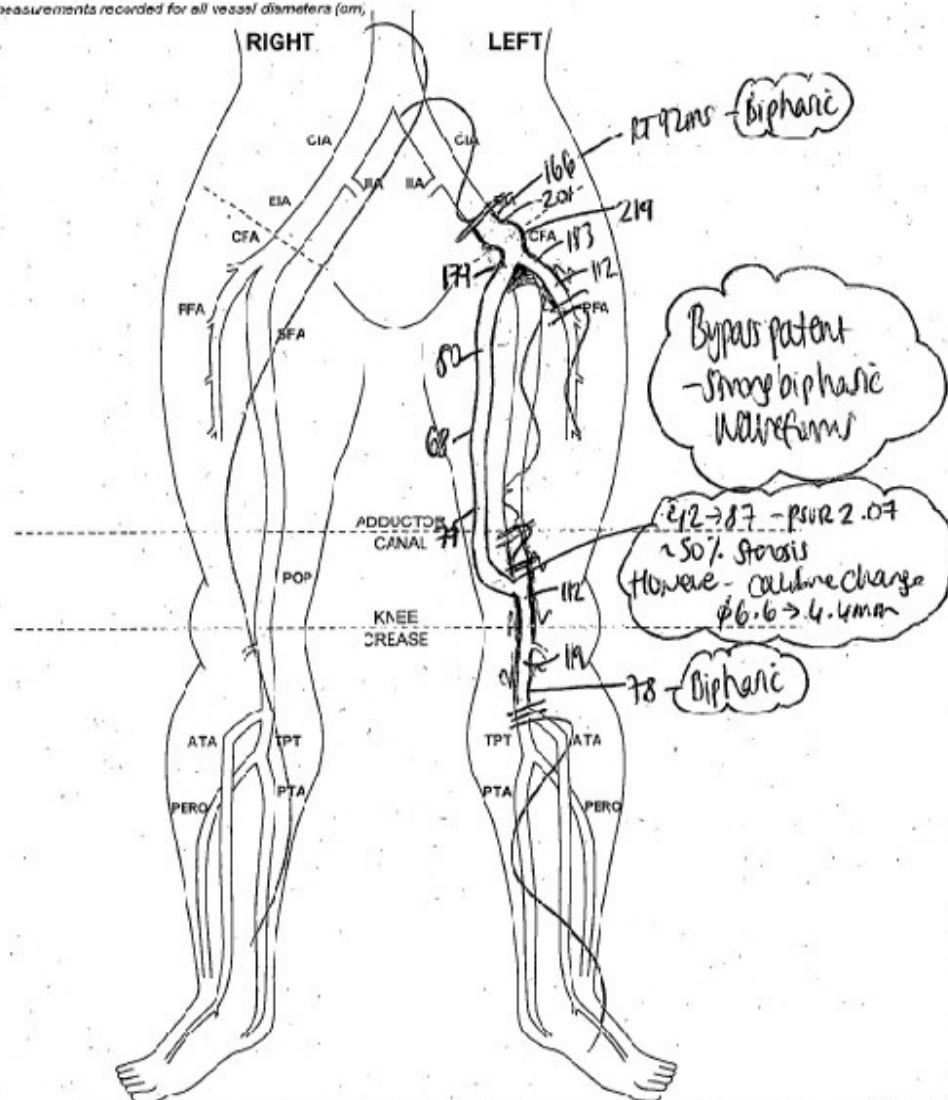
Consultant:

Shalhoub

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (mm)



Comments:

• Patent bypass - strong biphase flow  
• Patent bypass - strong biphase flow

Indications:

Consultant

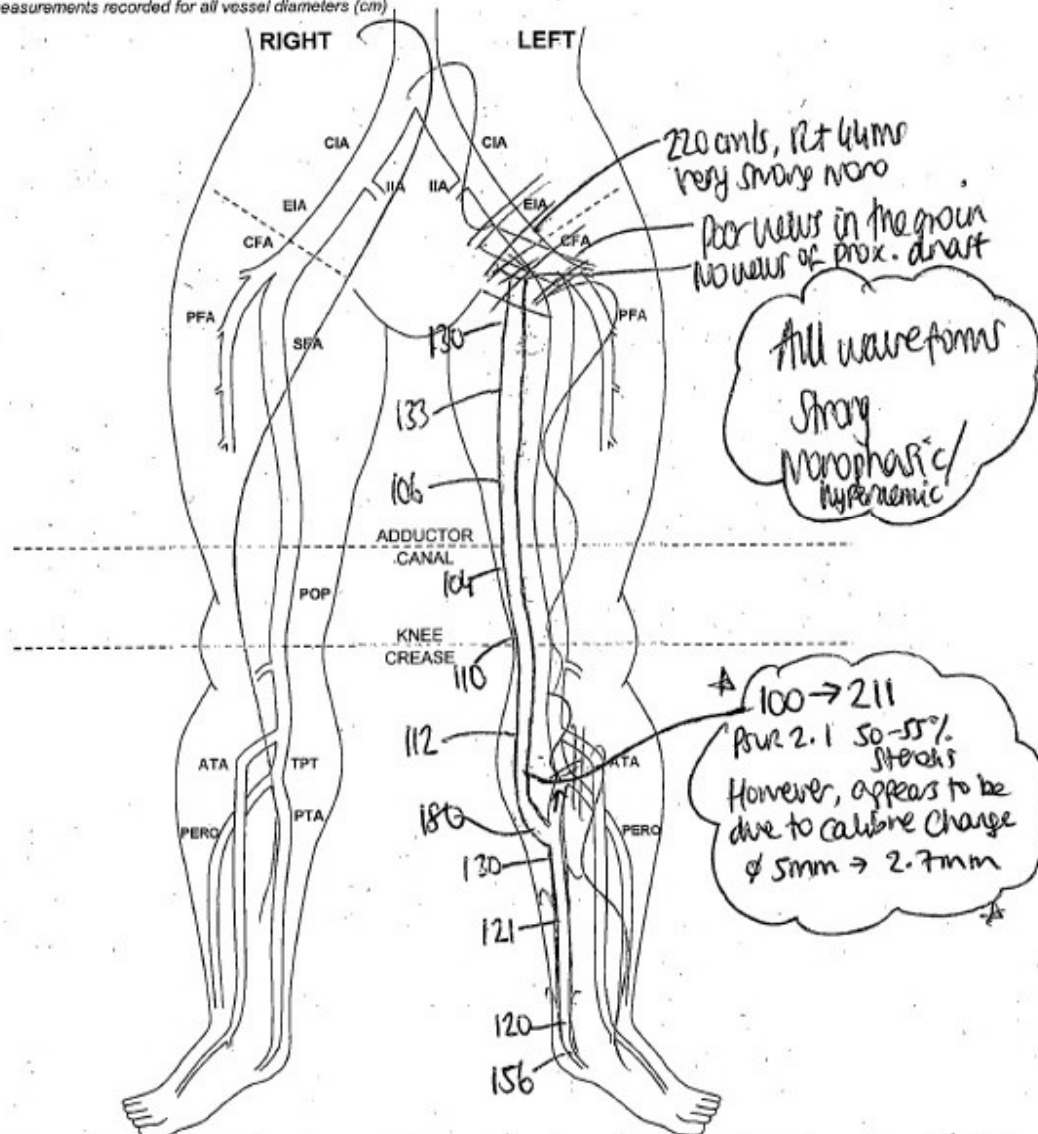
UKA

L fem-PT bypass . Post-op cheele

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



Comments:

No veins of proximal anastomosis

Indications:

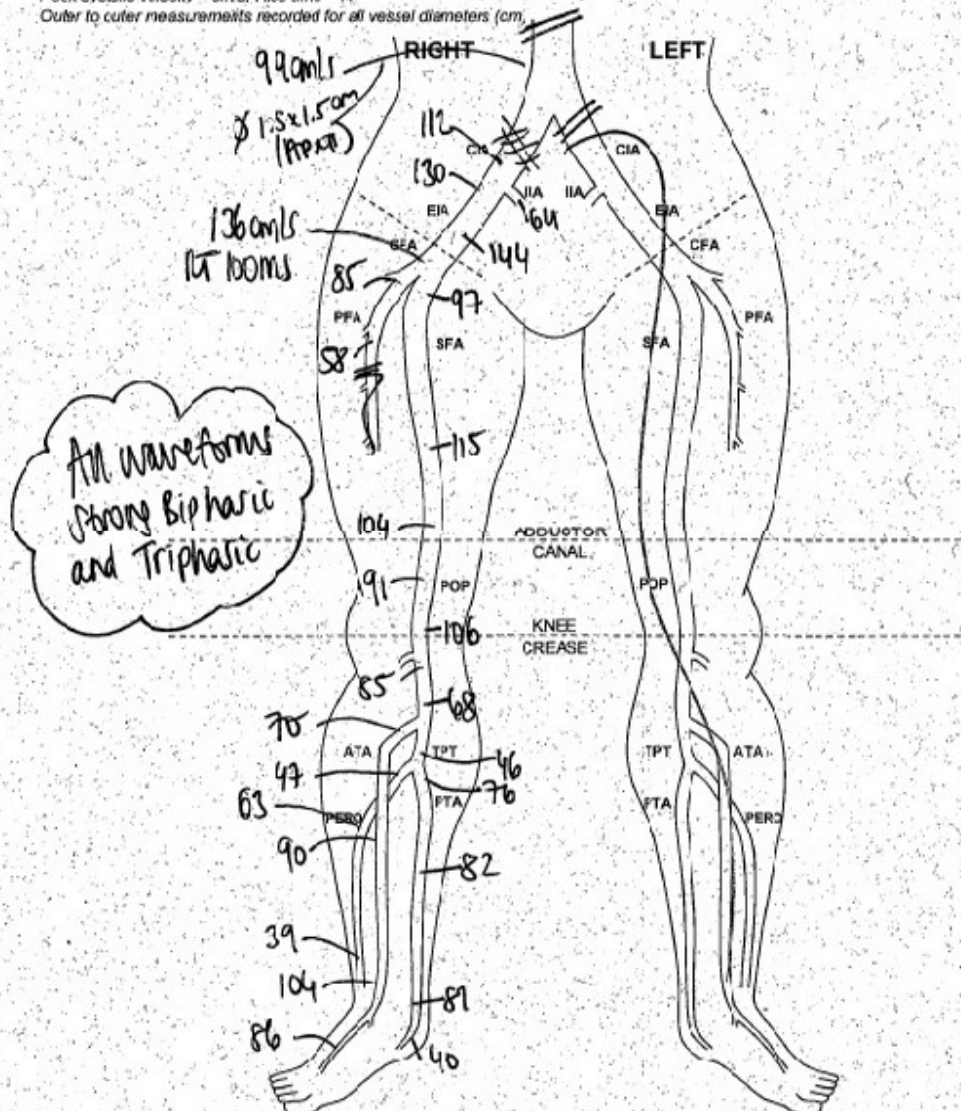
R leg pain. Diabetic

Consultant: Gibbs

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to inner measurements recorded for all vessel diameters (cm)



Comments:

Potent arteries of the right leg with Strong Biphasic and triphasic

Indications:

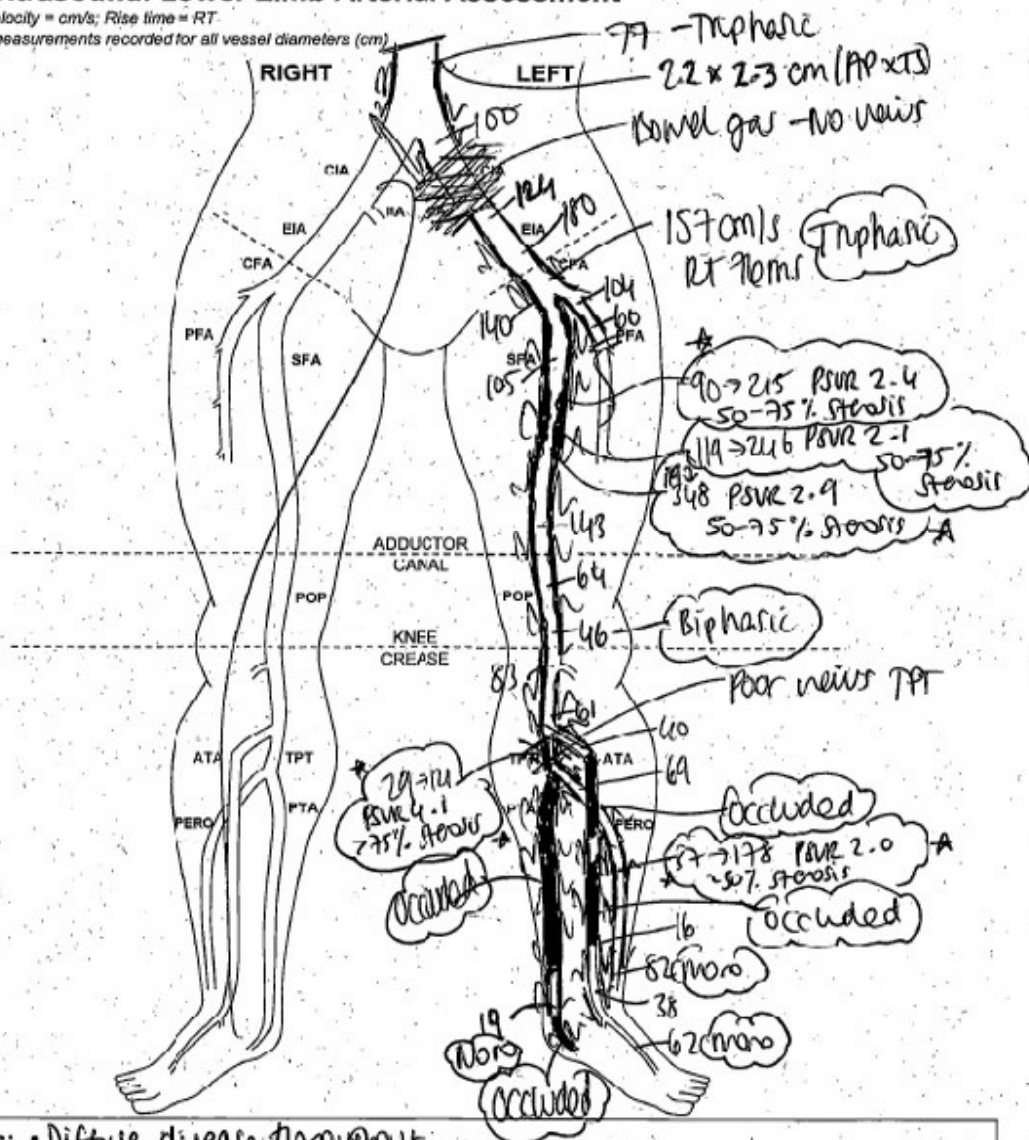
Consultant Allen

Known PAD. Now developed rest pain

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Out-to-out measurements recorded for all vessel diameters (cm)



Comments: • Diffuse disease throughout

• SFA proximal - mid 3x 50-75% stenosis (diseased region)

• Biphase flow popliteal

• TPT poor veins but PRV indicative of 50% stenosis

# Irvine Vascular Studies **NHS**

Imperial College Healthcare

Ground Floor, Mary Stanford Wing, St Mary's Hospital NHS Trust  
Ext 23739 / 23374 Email: imperial.irvinevascular.studies@nhs.net

## Indications:

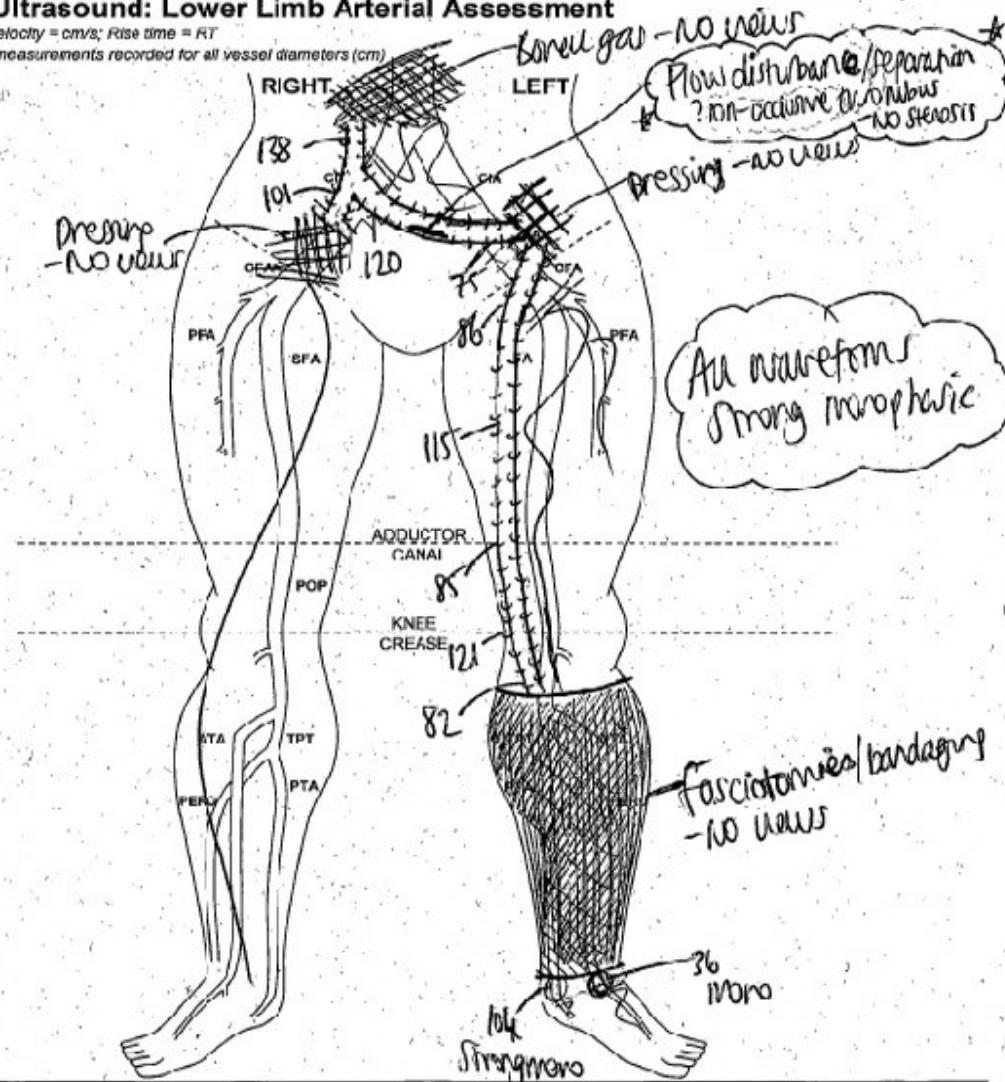
Post op graft thrombolysis

Consultant J. Halliwell

## Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



## Comments:

- Bypass patent where seen with strong monophasic flow
- An area of flow separation / disturbance noted in the abdominal segment of the bypass ? non-occlusive thrombus - NO STENOSIS / NO PSV shift

Indications:

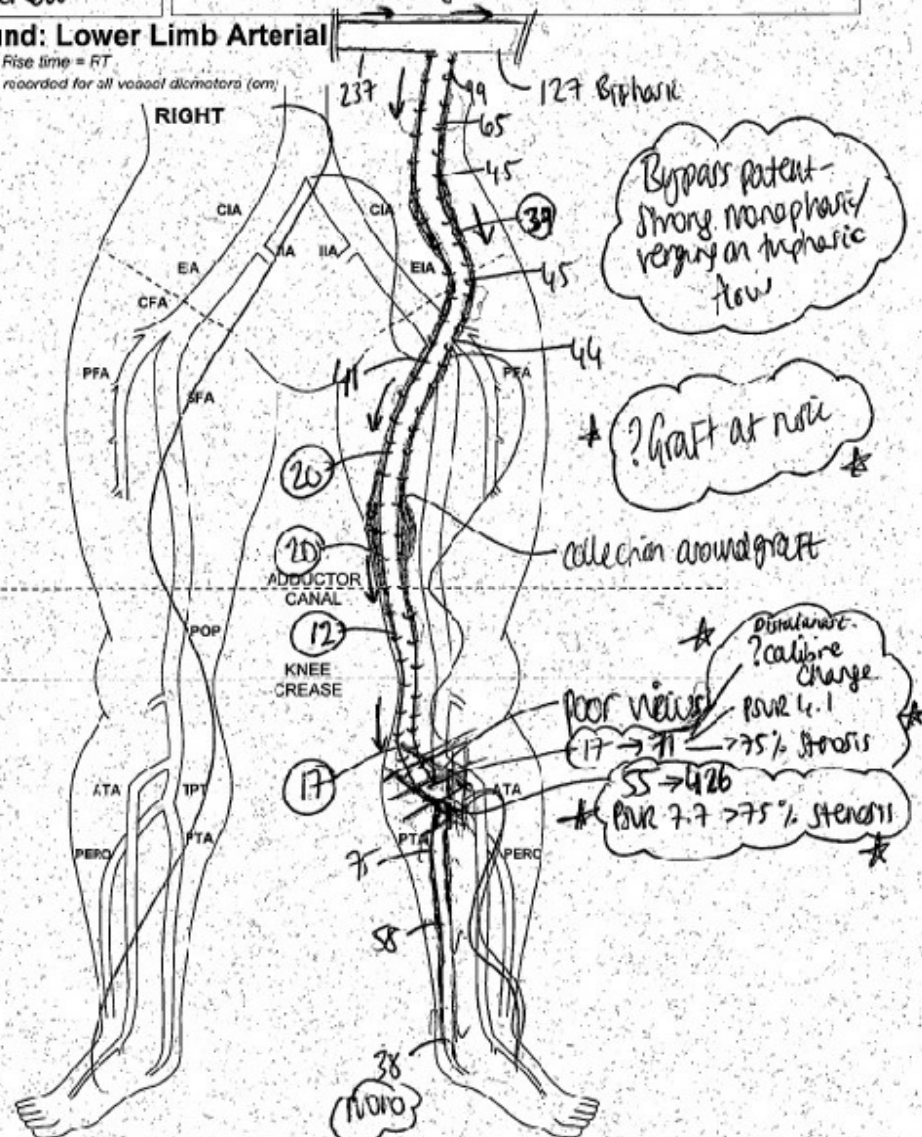
Left Ax-PT bypass

Consultant Bicirell

Duplex Ultrasound: Lower Limb Arterial

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



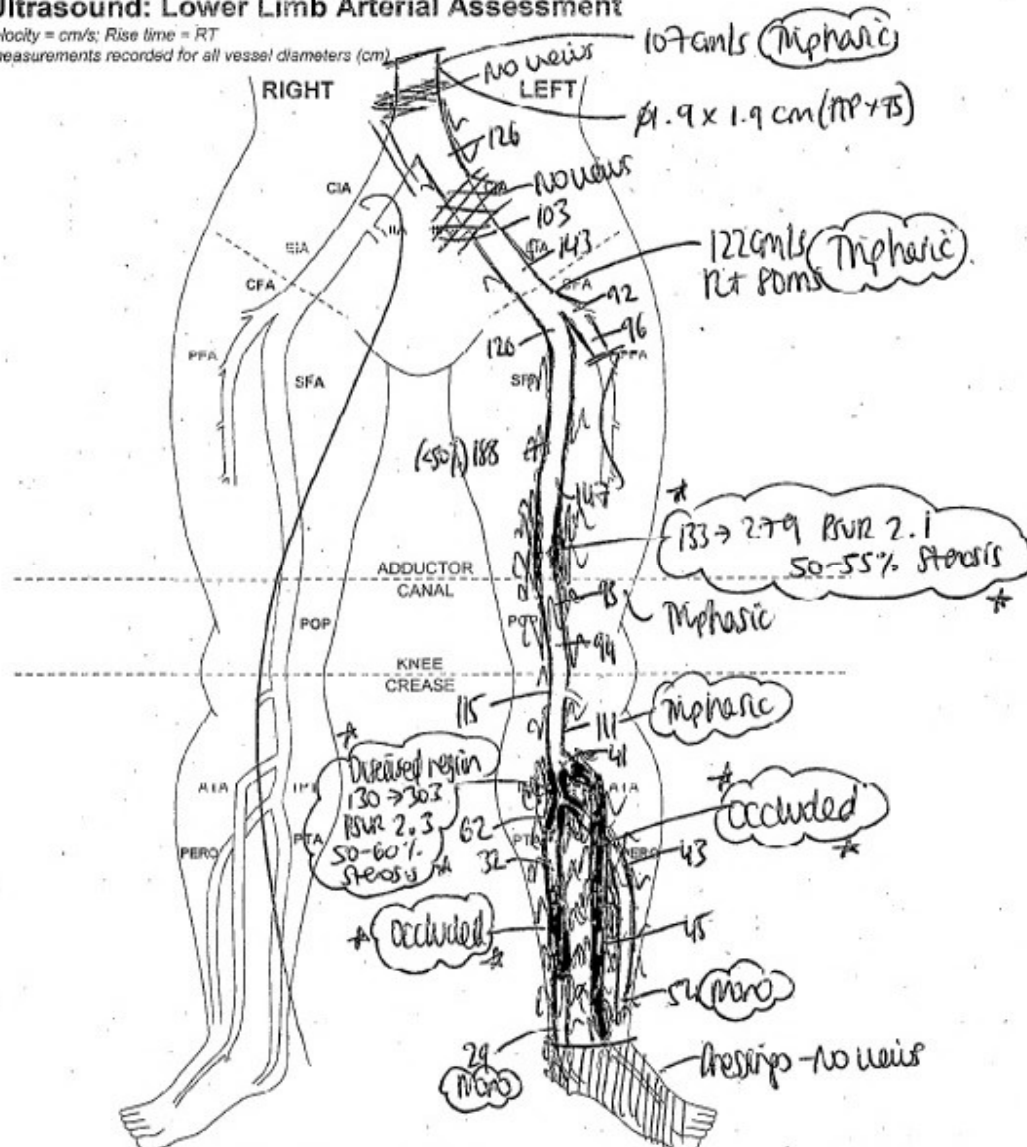
Comments:

- Patent Ax-PT bypass - strong monophasic/very high triphasic flow
- Areas of low PSV throughout - ? Graft at risk
- Poor view of distal anastomosis region - ↑ PSV at distal anast. indicative of > 75% stenosis

Consultant: *Hy/War*

L diabetic foot sepsis

Outer to outer measurements recorded for all vessel diameters (cm)



Comments: •  $\Delta G_{ATP} \rightarrow$  potential triphasic flow.

- Distal SFA 50-55% stenosis

- Heavily calcified distal vessels

Left pain + short distance claudication

Outer to outer measurements recorded for all vessel diameters (cm)



toxa → distal peripheral patent, trophic.

Prox-mid popliteal 50-55% stenosis.

segmental distal vessel occlusions with an extensive network of collaterals

Ans  $2 \times 60 = 70\%$

Clinical Vascular Scientist: duan AVS: Yes / ☒ No Date: 27/5/24

AVS: Yes / ☒ No Date: 2/7/24

same cork screw in  
↑ appearance

Indications:

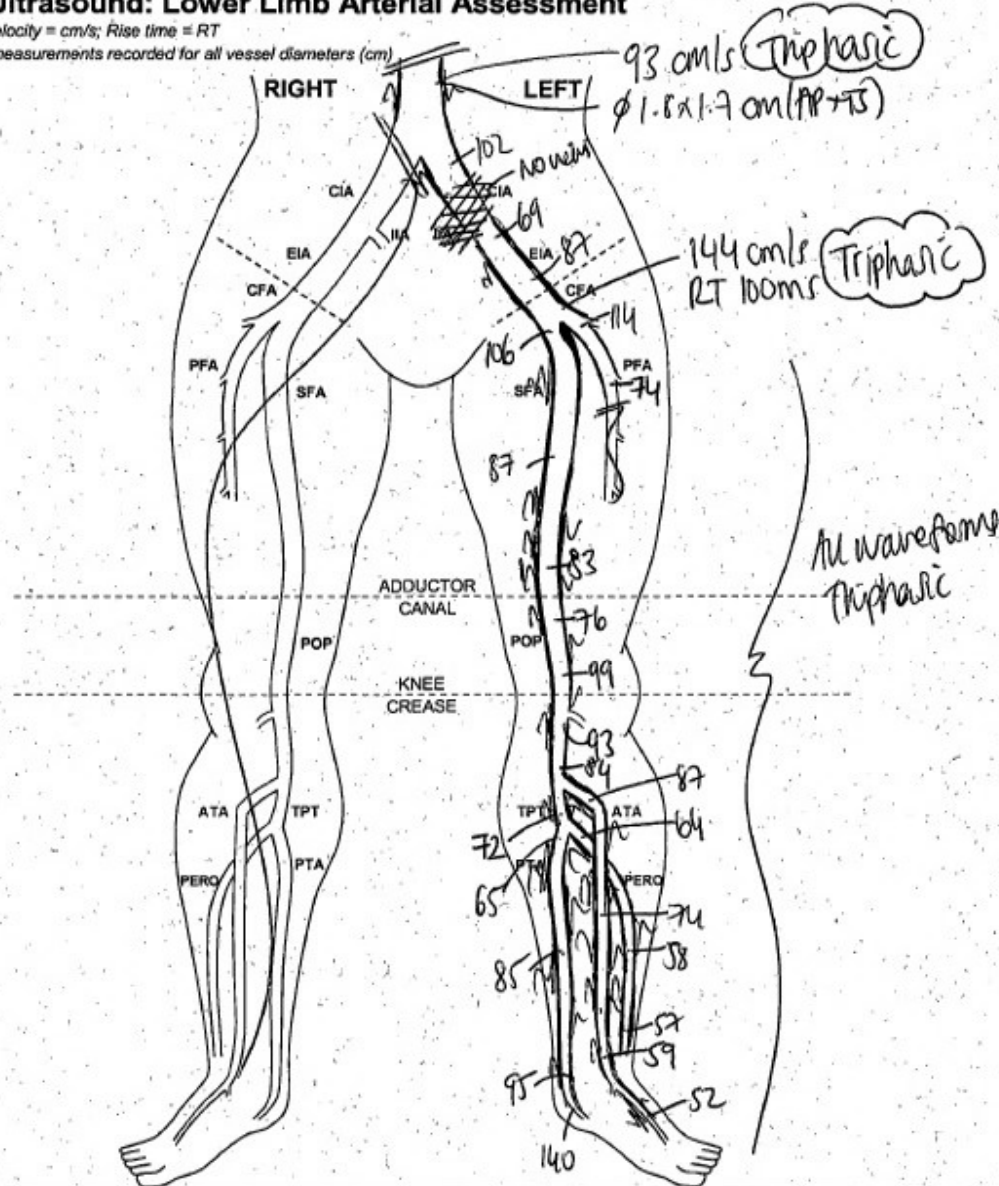
Consultant JAFFER

L foot ischaemia

Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



Comments:

Patent arteries of the left leg. Triphasic flow throughout

## Indications:

Diabetic foot infection

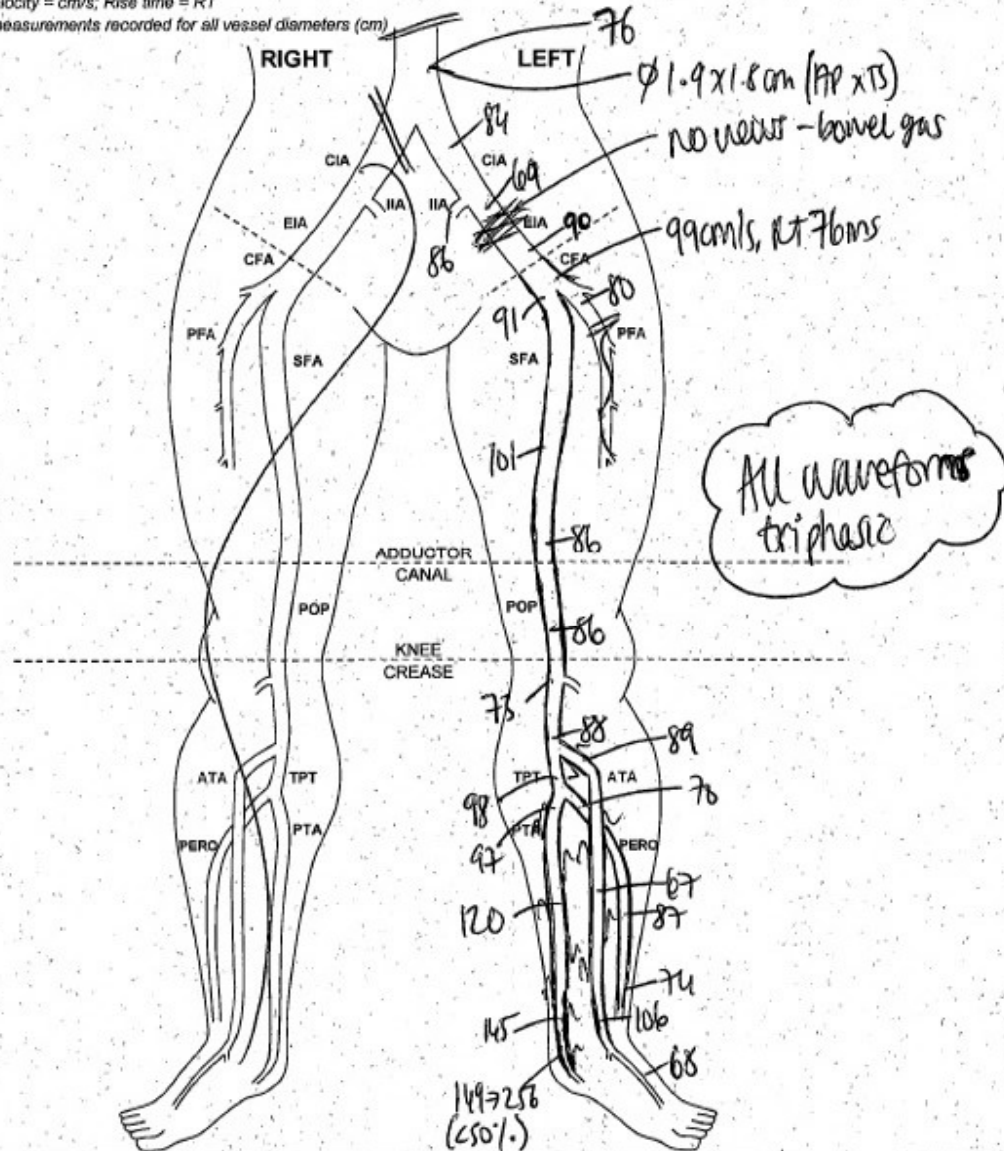
Consultant

Shallhoub

## Duplex Ultrasound: Lower Limb Arterial Assessment

Peak systolic velocity = cm/s; Rise time = RT

Outer to outer measurements recorded for all vessel diameters (cm)



## Comments:

Patent arteries of the left leg with triphasic flow