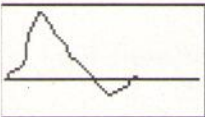


Reason Stent  
Outcome Stenosis moderate, Stenosis severe

Right			Left	
	125	1.00	Brachial	
	Good		Common Femoral	Good
			High Thigh	
			Low Thigh	
			Popliteal	Reduced
			High Calf	
			Peroneal	Weak
			Anterior Tibial	Weak
			Posterior Tibial	Weak
	145	1.16		100 0.80
			Dorsalis Pedis	
			Toe Pressure	
			Post Exercise	

### Notes

BILATERAL ILIAC ARTERIAL AND LEFT LOWER LIMB DUPLEX: Previous iliac stenting.

Aorta - calcified vessel walls but appears patent with good bi/triphasic waveforms, PSV 97cm/s.

### RIGHT:

CIA - stent is widely patent with good biphasic waveforms, PSV 131cm/s.

EIA - patent with mild calcified disease, good triphasic waveforms distally, PSV 194cm/s.

CFA - patent with visually severe calcified disease however no focal stenosis, good triphasic waveforms,

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PSV 213cm/s.

LEFT:

CIA - stent is widely patent, good biphasic waveforms, PSV 141cm/s.

EIA - Patent at origin, proximal-mid vessel is completely obscured however no raised velocities distal to this region. Mild/moderate disease mid to distal vessel, good biphasic waveforms, PSV 208cm/s.

CFA - Dense and calcified plaques identified forming a moderate stenosis, with velocities increasing from 103cm/s to 306cm/s.

PFA - Patent with mild/moderate disease, good but turbulent triphasic waveforms, 133cm/s.

SFA - Patent along length with areas of moderate calcified disease proximal and distal vessel however no stenosis along length, good becoming slightly reduced distally tri/biphasic waveforms, 133-48cm/s.

POPA - Patent proximally before dense and calcified plaque (extends for 1.8cm) forming a severe stenosis in the mid vessel, velocities increasing from 35cm/s to 357cm/s. Distal vessel is patent with reduced monophasic waveforms, 27cm/s.

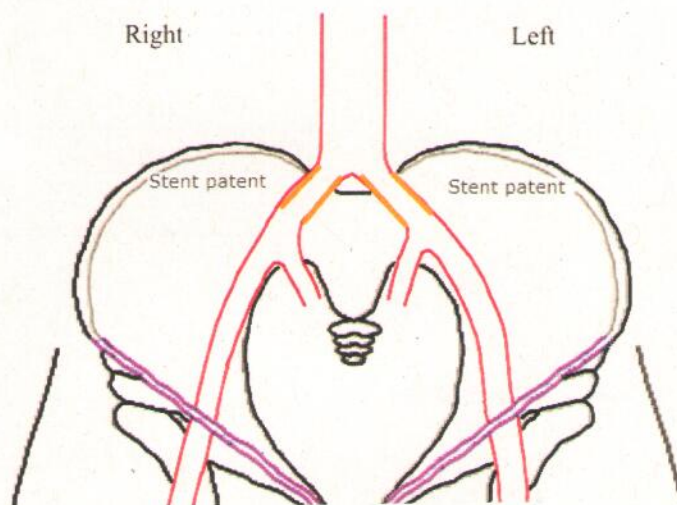
TPT is patent. 3 vessel run off noted.

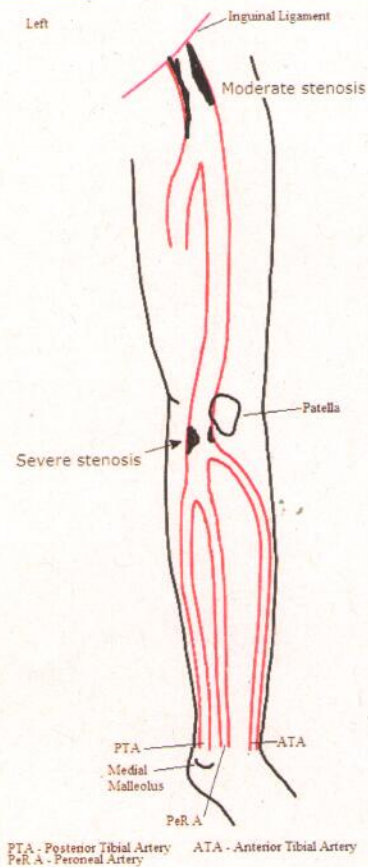
ATA/PEROA - patent along length, weak monophasic waveforms at ankle, 19-22cm/s.

PTA - patent along length, reduced monophasic waveforms at ankle, 27cm/s.

Right resting ABPI is normal (1.16)

Left resting ABPI is borderline reduced (0.8)







Reason	Routine
Outcome	Stenosis mild, Stenosis severe, Occlusion, Calcified

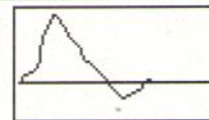
Right

Left

Brachial

Common Femoral

Good

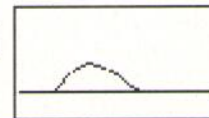


High Thigh

Low Thigh

Popliteal

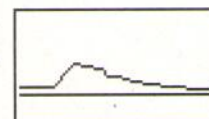
Reduced



High Calf

Peroneal

Reduced



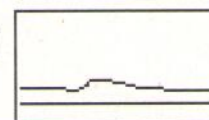
Anterior Tibial

Weak



Posterior Tibial

Reduced



Dorsalis Pedis

Toe Pressure

Post Exercise

## Notes

### LEFT LOWER LIMB ARTERIAL DUPLEX

CFA - Patent with moderate/severe dense plaques identified however no significant velocity increase to suggest stenosis, PSV 262cm/s.

PFA origin - Patent with mild/moderate disease, good (turbulent) triphasic waveforms, 198cm/s.

SFA - Patent with diffuse moderate calcified disease along length. Mild stenosis identified very proximal SFA @76cm, velocities increasing from 144cm/s to 310cm/s. Vessel is patent for a short distance before a severe stenosis identified @71cm, velocities increasing from 107cm/s to 489cm/s. Vessel is patent before

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another mild stenosis identified in the mid thigh @62cm, velocities increasing from 118cm/s to 276cm/s. Mid-distal SFA is then patent with calcified vessel walls, reduced monophasic waveforms distally, 94-54cm/s.

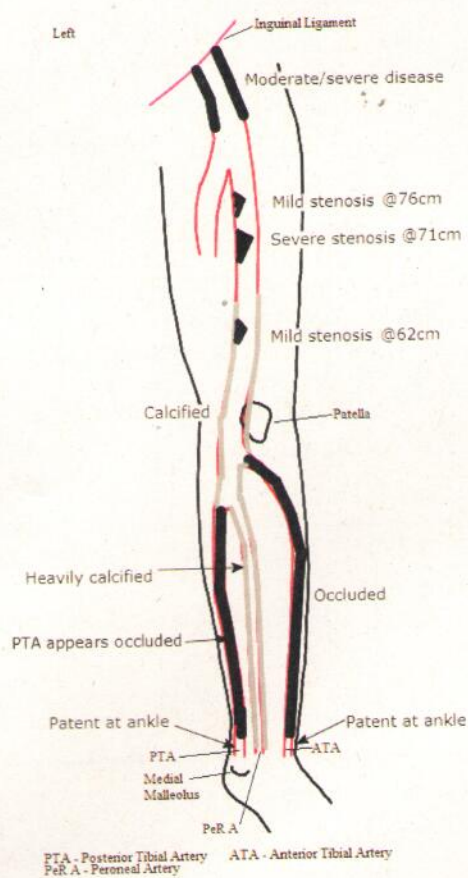
PopA - Patent with mild/moderate calcified disease, reduced monophasic waveforms, 41cm/s.  
TPT is patent and heavily calcified. 1 run-off origins noted (PERA).

ATA - Appears occluded proximally. Vessel is patent however at ankle with weak venous like flow, 14cm/s.

PTA - Appears occluded proximally. Vessel is patent however at ankle with reduced monophasic waveforms, 24cm/s.

PERA - Difficult to visualise due to vessel wall calcification, however appears patent where seen from origin to distal calf, reduced monophasic waveforms distally, 32cm/s.

ABPI's not performed due to weak signals at ankle/calcification.



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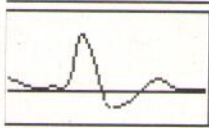
Printed on 04/07/2019 at 12:11 pm

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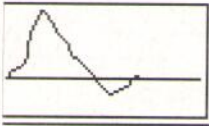
Reason Claudication  
Outcome Stenosis mild, Stenosis severe

## Right

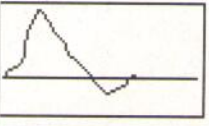
155 1.00



Good



Good



Good



Good

190 1.23

## Brachial

## Common Femoral

## High Thigh

## Low Thigh

## Popliteal

## High Calf

## Peroneal

## Anterior Tibial

## Posterior Tibial

## Dorsalis Pedis

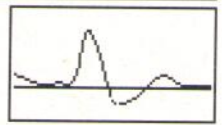
## Toe Pressure

## Foot Flex

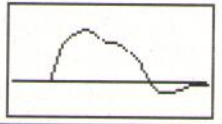
175 1.13

## Left

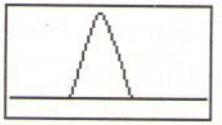
Good



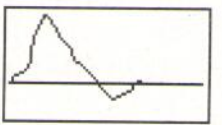
Slightly Reduced



Good

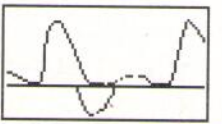


Good



Good

145 0.94



## Post Exercise

## Foot Flex

130 0.84

## Notes

### BILATERAL LOWER LIMB ARTERIAL DUPLEX

\*Irregular hear rate noted.

## RIGHT:

CFA - Patent with moderate calcified disease, good triphasic waveforms, 147cm/s.

PFA origin - Patent with mild disease, good triphasic waveforms, 162cm/s.

SFA - Patent proximally with mild calcified disease, good triphasic waveforms, 190cm/s. Mild stenosis

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Checked by



identified in the prox-mid thigh @69cm prox MM, with velocities increasing from 115cm/s to 270cm/s, disease length ~2.2cm. Mid-distal SFA is patent with mild disease, good bi/triphasic waveforms, 117-107cm/s.

PopA - Patent with mild disease, good biphasic waveforms, 75cm/s.

TPT is patent. 3 run-off origins noted.

ATA and PTA - Not fully assessed, patent at ankle with good biphasic waveforms, 103-88cm/s.

#### LEFT:

CFA - Patent with severe calcified disease however no significant velocity increase to suggest stenosis, good triphasic waveforms, 143-207cm/s.

PFA origin - Patent with moderate calcified disease, good triphasic waveforms, 224cm/s.

SFA - Patent with moderate/severe calcified disease at origin - no focal stenosis, good triphasic waveforms, 254cm/s. Prox-mid SFA is widely patent before a mild stenosis identified in the mid-distal thigh @55cm prox MM, velocities increasing from 84cm/s to 175cm/s, disease length ~1.5cm. Distal SFA is patent with moderate calcified disease, good triphasic waveforms, 158cm/s.

PopA - Patent proximally before a severe stenosis identified mid vessel, velocities increasing from 73cm/s to 563cm/s. Difficult to accurately measure disease length. Distal vessel is widely patent with slightly reduced biphasic waveforms, 42cm/s.

TPT is patent. 3 run-off origins noted.

ATA - patent along length with mild calcified disease, good biphasic waveforms at the ankle, 59cm/s.

PTA - patent along length with mild calcified disease, good triphasic waveforms at the ankle, 50cm/s.

PEROA - Heavily calcified, able to visualise in mid calf where is patent with good monophasic waveforms, 24cm/s.

Bilateral resting ABPI's are good (Right -1.23 , Left -0.94 ) with a 15mmHg reduction in systolic ankle pressure following a 1-minute foot flex exercise challenge bilaterally (?Accuracy due to irregular heart rate)

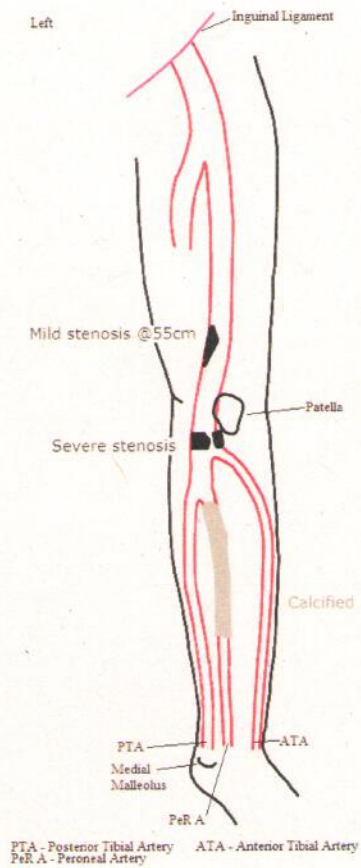
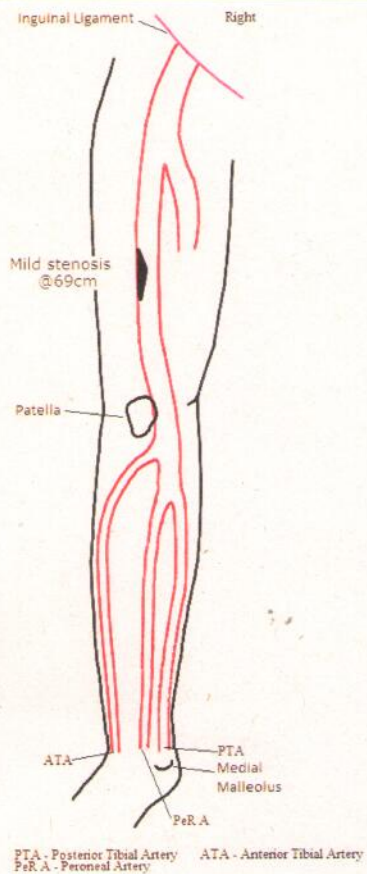
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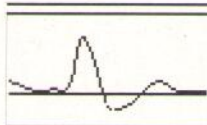




Reason                      Ulceration  
Outcome                    Stenosis severe

**Right**

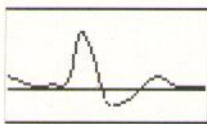
**Left**



Good

Brachial

Common Femoral

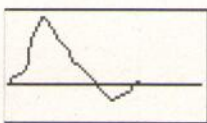


Good

High Thigh

Low Thigh

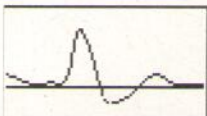
Popliteal



Good

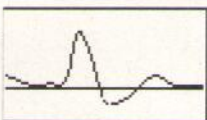
High Calf

Peroneal



Good

Anterior Tibial



Good

Posterior Tibial

Dorsalis Pedis

Toe Pressure

Post Exercise

**Notes**

**RIGHT LOWER LIMB ARTERIAL DUPLEX**

\*Scanned in clinic room using CX-50 machine.

CFA, PFA origin, SFA and PopA - patent with mild disease, good triphasic waveforms, 91-66cm/s.  
TPT is severely stenosed with velocities increasing from 62cm/s to 286cm/s.

3 run-off origins noted.

ATA - Patent along length with good triphasic waveforms at ankle, 78cm/s.

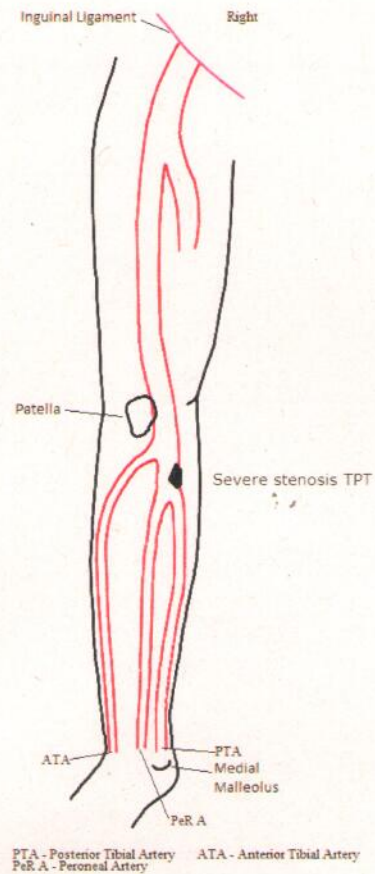
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PTA - Patent along length with good triphasic waveforms at ankle, 75cm/s.  
PEROA - Patent along length with good biphasic waveforms at ankle, 74cm/s.

ABPI's not performed.



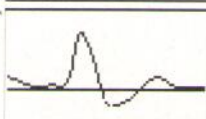


Reason	Claudication
Outcome	Stenosis moderate, Stenosis severe, Occlusion

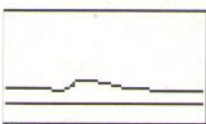
## Right

135

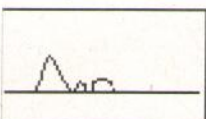
1.00



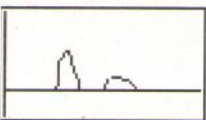
Good



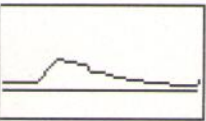
Reduced



Reduced



Weak



Reduced

85

0.63

## Left

Brachial

Common Femoral

High Thigh

Low Thigh

Popliteal

High Calf

Peroneal

Anterior Tibial

Posterior Tibial

Dorsalis Pedis

Toe Pressure

Post Exercise

## Notes

### RIGHT LOWER LIMB ARTERIAL DUPLEX

#### RIGHT:

CFA - Patent with mild/moderate disease, good triphasic waveforms, 131cm/s.

PFA origin - Appears moderately stenosed at origin, PSV 376cm/s, disease extends for ~1.94cm.

SFA - Patent at origin for ~2.6cm before vessel occludes in the proximal thigh @75cm prox MM. SFA reforms in the mid/distal thigh @58cm and is patent with mild/moderate calcified disease with reduced monophasic waveforms distally, 46-31cm/s.

Assessed by Danny Rimmer

Printed on 04/07/2019 at 9:19 am

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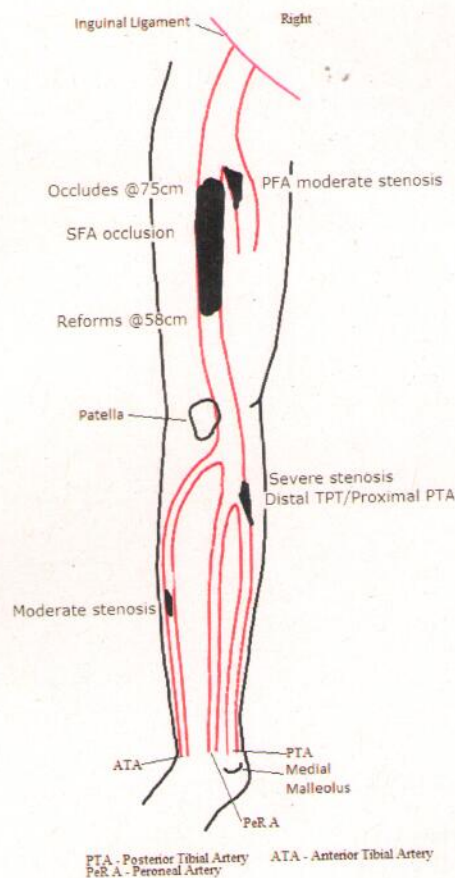
PopA - Patent with mild/moderate disease, reduced monophasic waveforms, 33cm/s.  
TPT is patent proximally however severe stenosis identified distally which extends into the proximal PTA, velocities increasing from 39cm/s to 208cm/s.

PTA - Stenosed at origin (PSV 208cm/s); vessel is then patent along length with mild calcified disease and patent at ankle with reduced monophasic waveforms, 31cm/s.

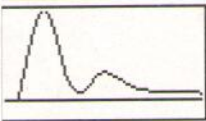
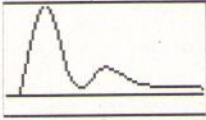

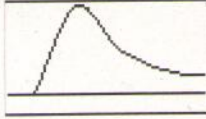

ATA - Patent at origin, short obscured region proximally (?due to calcification) before a moderate stenosis identified mid calf, velocities increasing from 19cm/s to 65cm/s. Vessel is then patent to ankle with moderate calcified disease, weak monophasic waveforms at ankle, 15cm/s.

PEROA - Difficult to visualise along length due to calcification, however appears patent along length where seen, reduced monophasic waveforms distal calf, 31cm/s.

Right resting ABPI is reduced (0.63).



**Reason** Angioplasty  
**Outcome** Stenosis moderate, Stenosis severe, Calcified

Right		Left	
		Brachial	_____
	<input type="text" value="Good"/>	Common Femoral	_____
		High Thigh	_____
		Low Thigh	_____
	<input type="text" value="Good"/>	Popliteal	_____
		High Calf	_____
	<input type="text" value="Absent"/>	Peroneal	_____
	<input type="text" value="Slightly Reduced"/>	Anterior Tibial	_____
	<input type="text" value="Absent"/>	Posterior Tibial	_____
		Dorsalis Pedis	_____
		Toe Pressure	_____
		Post Exercise	_____

**Notes**

**RIGHT AORTO-ILIAC AND LOWER LIMB ARTERIAL DUPLEX**

AORTA - Patent and calcified, good biphasic waveforms, 88cm/s.

CIA - Patent with mild disease, good biphasic waveforms, 87cm/s.

EIA - Partially obscured by bowel gas proximal vessel, mid-distal vessel is patent with mild calcified and good biphasic waveforms, 139cm/s.

Assessed by Danny Rimmer

Printed on 04/07/2019 at 9:22 am

Checked by \_\_\_\_\_



CFA - Patent with dense and calcified plaques which extends for ~2.5cm forming a moderate stenosis with velocities increasing from 150cm/s to 413cm/s.

PFA origin - Patent with mild disease, good (turbulent) biphasic waveforms, 224cm/s.

SFA - Patent with diffuse moderate disease prox-mid vessel with good biphasic waveforms (343cm/s - 102cm/s) before a severe stenosis identified in the distal thigh @48cm prox MM, with velocities increasing from 157cm/s to 514cm/s. Distal SFA is heavily calcified however appears patent with reduced monophasic waveforms, 50cm/s.

PopA - Patent with diffuse moderate disease, good bouncy monophasic waveforms, 124cm/s.

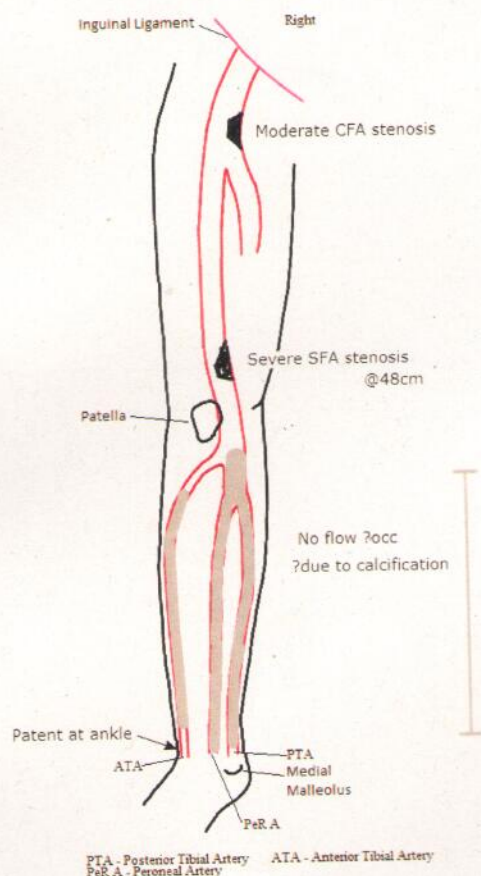
TPT is heavily calcified - unable to identify any flow ?occluded ?due to calcification. (1 vessel run off only noted - ATA)

ATA - Heavily calcified along length ?full patency ?occluded ?no flow due to calcification. Patent at ankle with slightly reduced monophasic waveforms, 74cm/s.

PTA - Heavily calcified along length ?full patency ?occluded ?no flow due to calcification. No flow identified at ankle.

PEROA - No flow identified along length ?occluded ?due to calcification.

ABPI's not performed due to extensive crural vessel wall calcification.



Assessed by Danny Rimmer

Printed on 04/07/2019 at 9:22 am

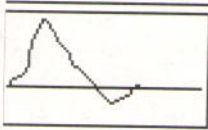
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Reason                      Ulceration  
Outcome                    Occlusion

**Right**

**Left**

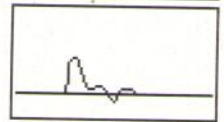
Brachial



Good

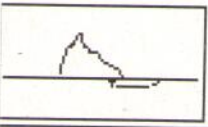
Common Femoral

Good



High Thigh

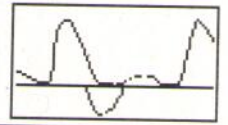
Low Thigh



Good

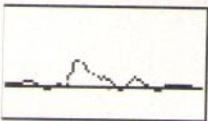
Popliteal

Good



High Calf

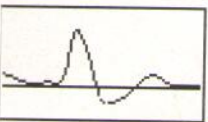
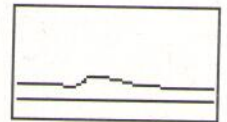
Peroneal



Reduced

Anterior Tibial

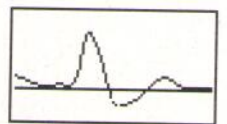
Reduced



Good

Posterior Tibial

Good



Dorsalis Pedis

Toe Pressure

Post Exercise

**Notes**

**BILATERAL LOWER LIMB ARTERIAL DUPLEX**

\*Patient scanned in wheelchair due to poor mobility.

**RIGHT:**

CFA, PFA origin, SFA and PopA - patent with mild disease, good biphasic waveforms, 108 - 30cm/s.  
TPT is patent. 2 run-off origins noted.

ATA - Occluded prox-mid calf. Reduced triphasic flow noted at ankle however, 30cm/s.

PTA - patent with good triphasic waveforms at the ankle, 129cm/s.

Assessed by                      Danny Rimmer

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Checked by



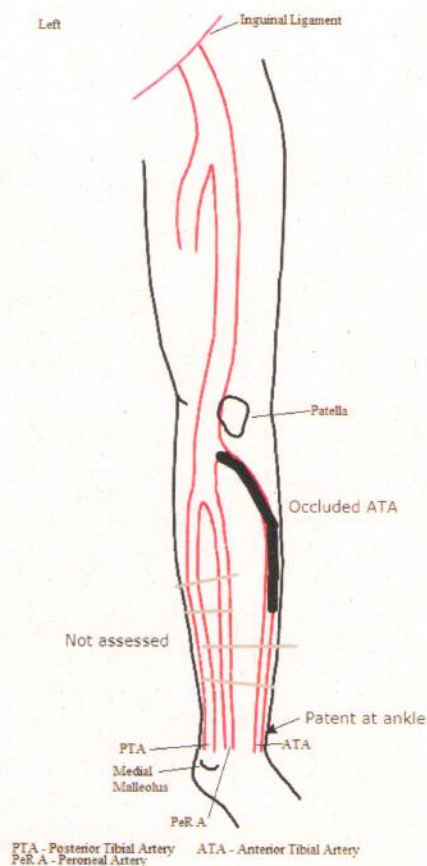
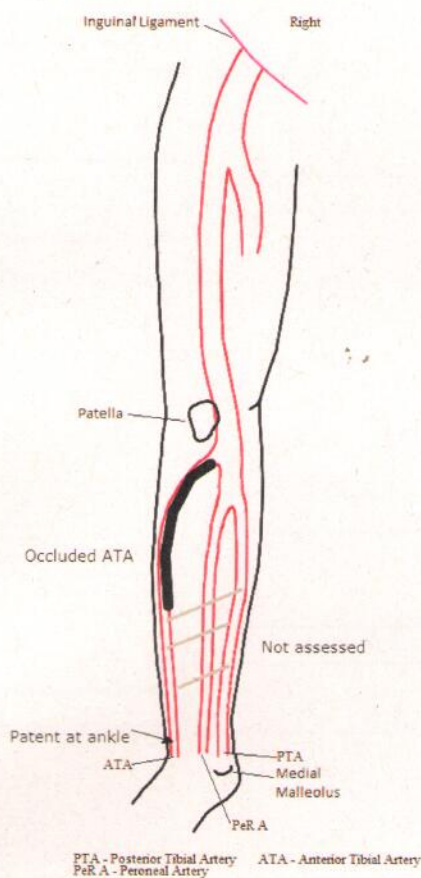
LEFT:

CFA, PFA origin, SFA and PopA - patent with mild disease, good bi/triphasic waveforms, 120 - 44cm/s.  
TPT is patent. 2 run-off origins noted.

ATA - Occluded prox-mid calf. Reduced monophasic flow noted at ankle however, 24cm/s.

PTA - patent with good triphasic waveforms at the ankle, 123cm/s.

ABPI's not performed as patient scanned in wheelchair.



Assessed by Danny Rimmer

Printed on 04/07/2019 at 9:23 am

Checked by

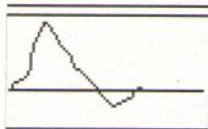


Reason            Angioplasty  
Outcome        Occlusion

## Right

## Left

Brachial



Good

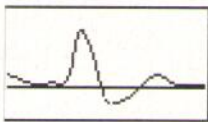
Common Femoral

Good



High Thigh

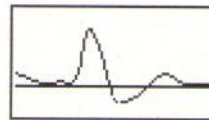
Low Thigh



Good

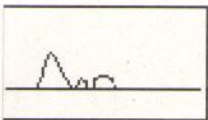
Popliteal

Good

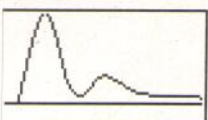


High Calf

Peroneal



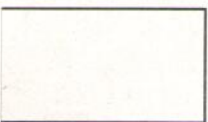
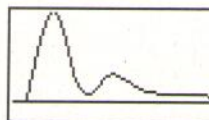
Good



Good

Anterior Tibial

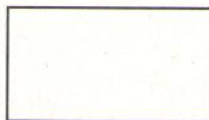
Good



Absent

Posterior Tibial

Absent



Dorsalis Pedis

Toe Pressure

Post Exercise

## Notes

### BILATERAL LOWER LIMB ARTERIAL DUPLEX

\*Scanned in clinic room using portable CX-50 machine.

#### RIGHT:

CFA, PFA origin, SFA and PopA - patent with mild disease, calcified vessel walls, good bi/triphasic waveforms, 91 - 41cm/s.

TPT is patent. 2 run-off origins noted.

ATA - Patent proximally (unable to assess mid calf due to ulceration) and patent at ankle with good bouncy

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monophasic waveforms, 134cm/s.

PTA - No flow identified proximally ?full length occlusion - vessel is occluded at ankle.

PEROA - Difficult to visualise due to oedema/calcification, is patent mid calf with good bouncy monophasic waveforms, 50cm/s.

#### LEFT:

CFA, PFA origin, SFA and PopA - patent with mild disease, calcified vessel walls, good bi/triphasic waveforms, 80 - 43cm/s.

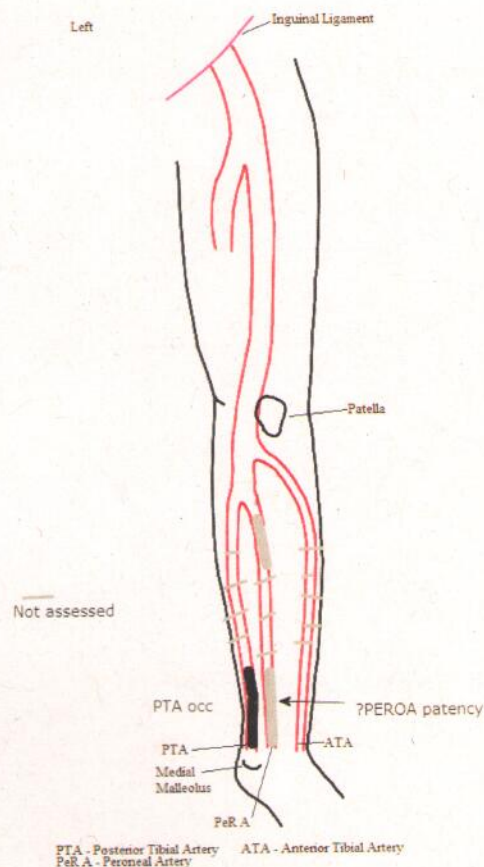
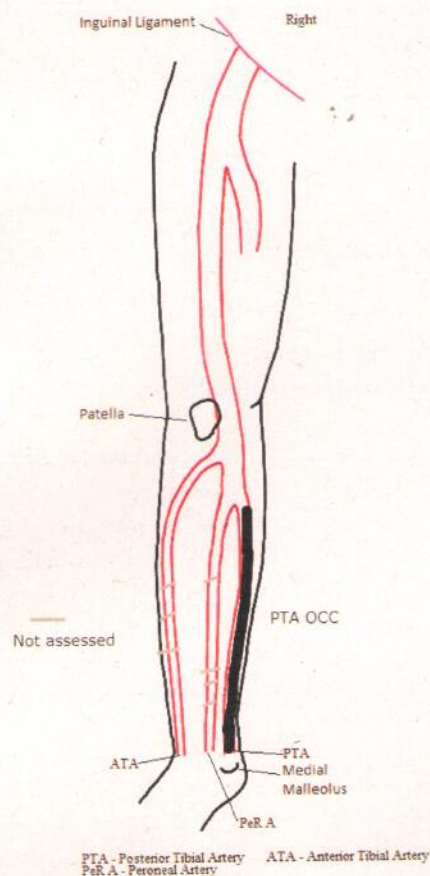
TPT is patent. 3 run-off origins noted.

ATA - Patent proximally (unable to assess mid calf due to ulceration) and patent at ankle with good bouncy monophasic waveforms, 126cm/s.

PTA - Patent at origin (unable to assess mid calf due to ulceration) however vessel is occluded distally.

PEROA - Unable to visualise flow due to oedema/calcification - cannot comment on patency from this assessment.

ABPI's not performed due to extensive ulceration.



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Reason Angioplasty, Claudication  
Outcome Stenosis mild, Stenosis severe, Occlusion

Right

160 1.00

Left

Brachial

Common Femoral

Good



High Thigh

Low Thigh

Popliteal

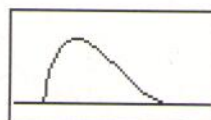
Reduced



High Calf

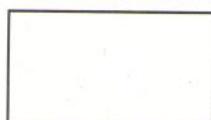
Peroneal

Reduced



Anterior Tibial

Absent

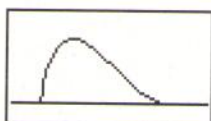


Posterior Tibial

Reduced

75

0.47



Dorsalis Pedis

Toe Pressure

Post Exercise

### Notes

#### LEFT LOWER LIMB ARTERIAL DUPLEX:

CFA - patent, visually moderate/severe dense and calcified plaques, good biphasic waveforms, 143cm/s.  
PFA origin - Calcified SFA/PFA bifurcation however appears occluded at origin with no flow identified and retrograde flow in the proximal thigh noted suggesting proximal occlusion.

SFA - Patent with mild/moderate calcified disease proximally, diffuse mild/moderate smooth disease mid vessel, good biphasic waveforms, PSV 235cm/s. SFA was difficult to visualise distally due to calcification, however mild stenosis noted @51cm with velocities increasing from 58cm/s to 133cm/s before an

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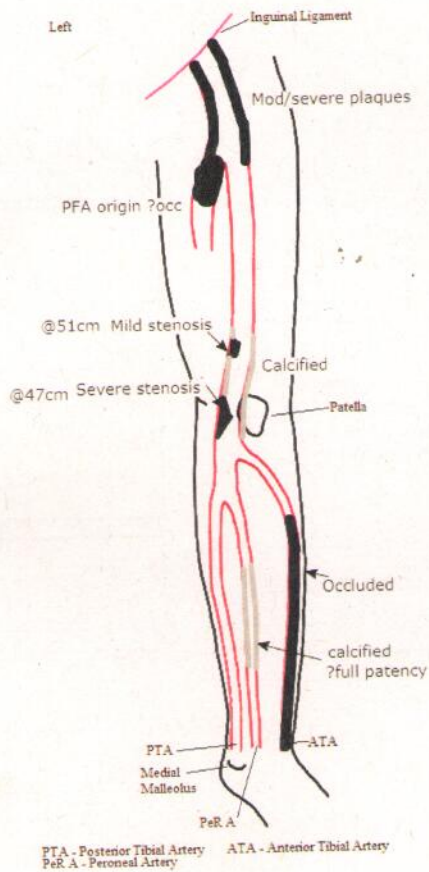
additional severe stenosis noted @47cm, with velocities increasing from 115cm/s to over 425cm/s.  
PopA - patent with diffuse moderate calcified disease, reduced monophasic waveforms, 38cm/s.  
TPT is patent. 3 run-off origins noted.

ATA - origin is patent but vessel appears to occlude in the proximal calf.

PTA - patent to the ankle, reduced monophasic waveforms, 60cm/s.

PerA - Difficult to visualise prox-mid due to calcification ?full patency, patent distally with reduced monophasic waveforms, 25cm/s.

ABPI is significantly reduced on the left (0.47).



Reason           Angioplasty  
Outcome       Occlusion

**Right**

120

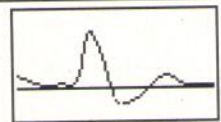
1.00

**Left**

Brachial

Common Femoral

Good

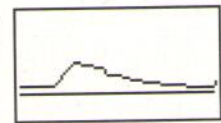


High Thigh

Low Thigh

Popliteal

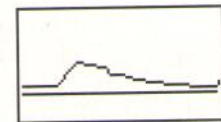
Reduced



High Calf

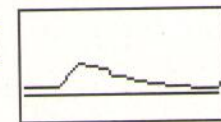
Peroneal

Reduced



Anterior Tibial

Reduced

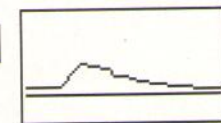


Posterior Tibial

Reduced

60

0.50



Dorsalis Pedis

Toe Pressure

Post Exercise

**Notes**

**LEFT LOWER LIMB ARTERIAL DUPLEX ASSESSMENT**

CFA, PFA origin - Patent with mild/moderate calcified disease, good triphasic waveforms, 118-85cm/s.  
SFA - Patent prox-mid vessel with mild/moderate calcified disease, good becoming reduced monophasic waveforms mid vessel, 93-77cm/s. Moderate disease mid vessel @57cm prox MM, however no velocity shift to suggest focal stenosis. Distal SFA appears occluded @50cm prox MM, with collateral vessels noted in the distal thigh.

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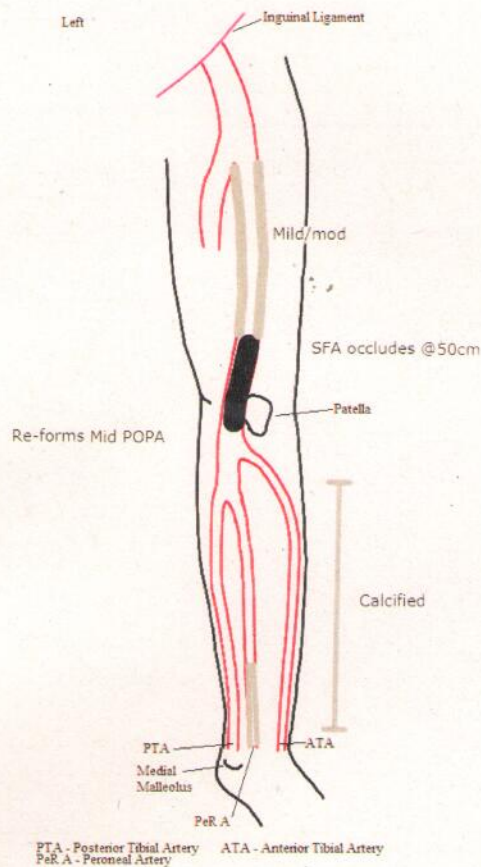
PopA - No flow proximally. Vessel re-forms mid vessel and is patent with mild/moderate calcified disease, reduced monophasic waveforms, 43cm/s.

TPT is patent. 3 run-off origins noted.

ATA, PTA - Patent along length with calcified vessel walls, reduced monophasic waveforms at the ankle, 35-21cm/s.

PEROA - Heavily calcified, patent where seen prox-mid calf with reduced monophasic waveforms at the ankle, 20cm/s. Unable to visualise distally ?due to calcification.

Left resting ABPI is borderline significantly reduced (0.50).



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Checked by \_\_\_\_\_



Reason Routine  
Outcome Stenosis severe

## Right

## Left

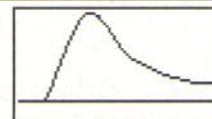
Brachial

125

1.00

Common Femoral

Good

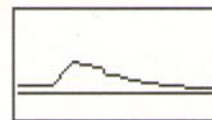


High Thigh

Low Thigh

Popliteal

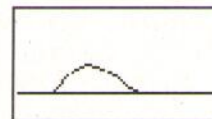
Reduced



High Calf

Peroneal

Reduced



Anterior Tibial

Reduced

75

0.60



Posterior Tibial

Reduced



Dorsalis Pedis

Toe Pressure

Post Exercise

## Notes

### LEFT AXILLO-FEM BYPASS GRAFT AND LOWER LIMB ARTERIAL DUPLEX

SUBA: Patent distally with mild calcified disease, good monophasic waveforms, 281cm/s.

#### BYPASS GRAFT:

Proximal anastomosis (Axillary A): Widely patent, good monophasic waveforms, 315cm/s.

Main body of graft: Widely patent along length, good/slightly reduced monophasic waveforms, 127cm/s.

Distal anastomosis (to CFA): Widely patent, good monophasic waveforms, 142cm/s.

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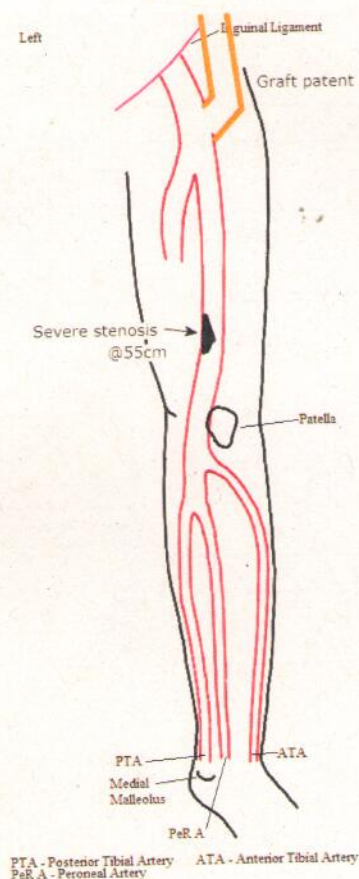
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PFA - Patent with mild disease, good monophasic waveforms, 139cm/s.  
 SFA - Patent prox-mid thigh with mild disease, good monophasic waveforms, 104-97cm/s. Severe stenosis identified in the distal thigh @55cm prox MM, velocities increasing from 87-437cm/s. SFA is patent in the adductor canal with turbulent monophasic waveforms, 128cm/s.  
 POPA - Patent with mild disease, reduced monophasic waveforms, 38cm/s.  
 TPT is patent. 3 vessel run off origins noted.

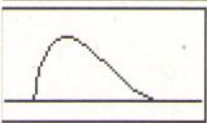

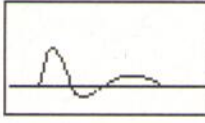
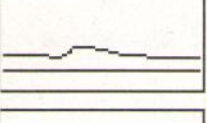
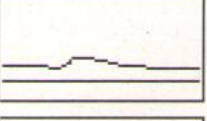
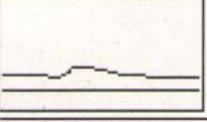
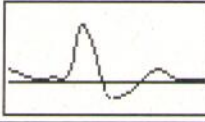
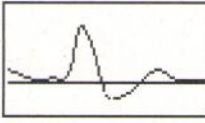
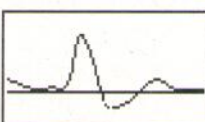
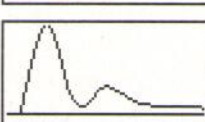
ATA/PTA/PEROA - Patent along length with mild disease, reduced monophasic waveforms, 58-29cm/s.

Left resting ABPI is reduced (0.60).





**Reason** Claudication  
**Outcome** Occlusion, Bowel gas

Right		Left	
	<div>160</div> <div>1.00</div> <div>Reduced</div>	<b>Brachial</b>	
	<div>Reduced</div>	<b>Common Femoral</b>	<div>Slightly Reduced</div> 
	<div>Reduced</div>	<b>High Thigh</b>	
	<div>Reduced</div>	<b>Low Thigh</b>	
	<div>Reduced</div> <div>70</div> <div>0.44</div>	<b>Popliteal</b>	<div>Good</div> 
		<b>High Calf</b>	
		<b>Peroneal</b>	<div>Good</div> 
		<b>Anterior Tibial</b>	<div>Good</div> 
		<b>Posterior Tibial</b>	<div>Good</div> <div>130</div> <div>0.81</div> 
		<b>Dorsalis Pedis</b>	
		<b>Toe Pressure</b>	
		<b>Post Exercise</b>	

### Notes

#### BILATERAL AORTO-ILIAC AND LOWER LIMB ARTERIAL DUPLEX

Aorta: Sub-optimal views due to bowel gas, however appears tortuous and aneurysmal, measuring 4cm TS (Outer-to-Outer); 3.8cm LS (Outer to Outer); reduced biphasic waveforms, 51cm/s.

#### RIGHT:

CIA: Completely obscured by bowel gas, cannot comment on patency.

EIA: Poorly visualised at origin, however appears occluded mid vessel to distal vessel. Vessel appears to

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reform just above inguinal ligament.

CFA: Patent with moderate/severe calcified disease, reduced monophasic waveforms, 89cm/s.

PFA origin: Partially obscured at origin due to acoustic shadowing, appears patent with mild/moderate disease, slightly reduced monophasic waveforms, 99cm/s.

SFA: Patent along length with diffuse mild/moderate calcified disease, reduced monophasic waveforms, 85-71cm/s.

PopA: Patent with mild/moderate disease, reduced monophasic waveforms, 37cm/s.

TPT is patent. 3 run-off origins noted.

ATA - Patent proximally, vessel appears to occlude in the mid calf; however peroneal artery appears to re-fill vessel at ankle, reduced monophasic waveforms, 23cm/s.

PTA - Patent along length, reduced monophasic waveforms at the ankle, 25cm/s.

PEROA - patent along length, reduced monophasic waveforms at ankle, 32cm/s.

#### LEFT:

CIA: Completely obscured by bowel gas.

EIA: Poorly visualised at origin due to bowel gas, cannot exclude stenosis; however appears patent with mild disease mid vessel to distal vessel, slightly reduced turbulent triphasic waveforms, 99cm/s.

CFA: Patent with moderate calcified disease, slightly reduced triphasic waveforms, 84cm/s.

PFA origin: Patent with mild/moderate disease, good triphasic waveforms, 59cm/s.

SFA: Widely patent prox-mid vessel, mild calcified disease distally, good triphasic waveforms, 85-76cm/s.

PopA: Patent with mild disease, good triphasic waveforms, 76cm/s.

TPT is patent. 3 run-off origins noted.

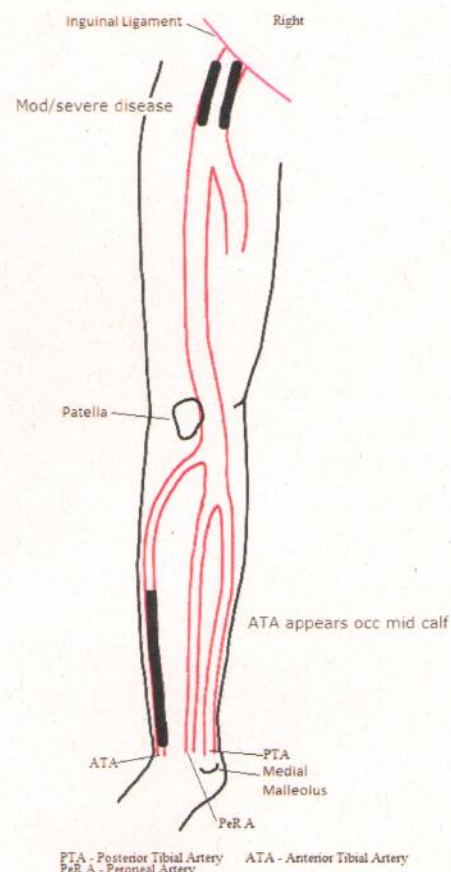
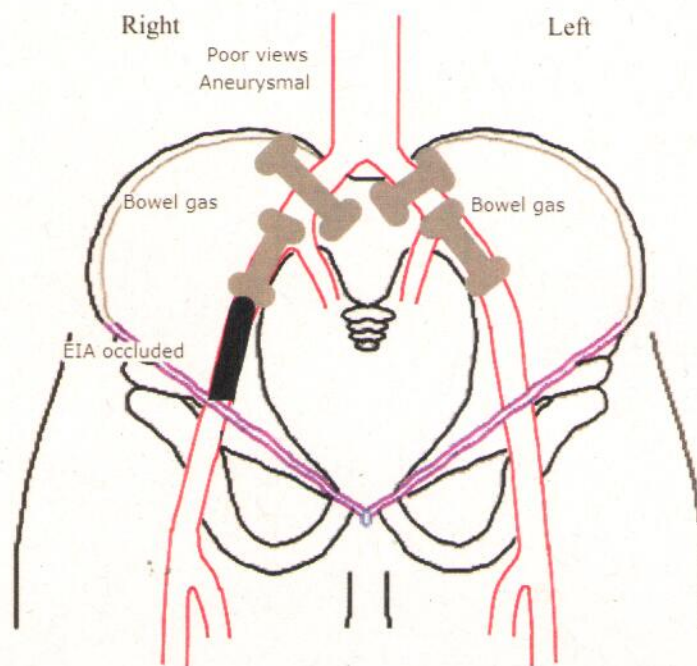
ATA - Patent along length, good triphasic waveforms at ankle, 30cm/s.

PTA - Patent along length, good bouncy mono/triphasic waveforms at the ankle, 67cm/s.

PEROA - patent along length, good triphasic waveforms at ankle, 30cm/s.

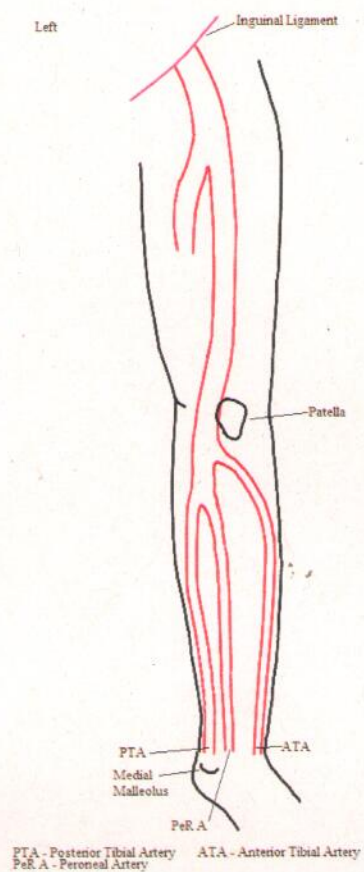
Right resting ABPI is significantly reduced (0.44).

Left resting ABPI is within acceptable limits/borderline reduced (0.81)



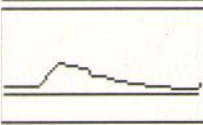
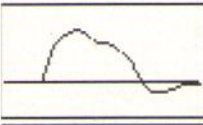
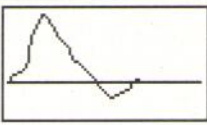
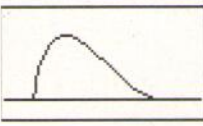
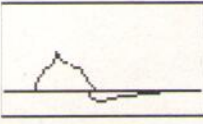
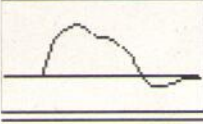
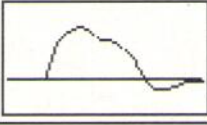
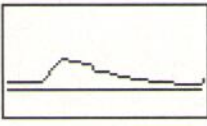
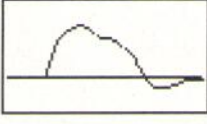
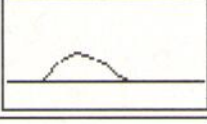
Assessed by Danny Rimmer  
 Printed on 04/07/2019 at 8:56 am

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**Reason** Claudication  
**Outcome** Stenosis moderate, Poor images, patient habitus

Right		Left	
	165 1.00 Reduced	<b>Brachial</b>	
	Slightly Reduced	<b>Common Femoral</b>	Good 
	Reduced	<b>High Thigh</b>	
	Weak 105 0.64	<b>Low Thigh</b>	
	Reduced	<b>Popliteal</b>	Slightly Reduced 
		<b>High Calf</b>	
		<b>Peroneal</b>	Reduced 
		<b>Anterior Tibial</b>	Reduced 105 0.64 
		<b>Posterior Tibial</b>	Weak 
		<b>Dorsalis Pedis</b>	
		<b>Toe Pressure</b>	
		<b>Post Exercise</b>	

### Notes

BILATERAL AORTO-ILIAC AND LOWER LIMB ARTERIAL DUPLEX

\*Difficult assessment of iliac vessels due to body habitus.

AORTA - Not identified due to depth/body habitus/tense abdomen.

RIGHT:

CIA - Not identified due to depth.

EIA - Not identified prox-mid vessel due to depth. Vessel is patent distally with turbulent monophasic waveforms, 223cm/s ?proximal stenosis.

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CFA - Patent with mild/moderate disease and reduced monophasic waveforms, 97cm/s.  
PFA origin - Patent with mild/moderate disease and slightly reduced monophasic waveforms, 85cm/s.  
SFA - Patent with mild disease proximally and diffuse moderate disease mid vessel, slightly reduced biphasic waveforms along length, 79-61cm/s.  
PopA - Patent with mild/moderate disease, slightly reduced biphasic waveforms, 60cm/s.  
TPT is patent. 3 run-off origins noted.  
ATA - patent along length, weak monophasic waveforms at the ankle, 24cm/s.  
PTA - patent along length, reduced monophasic waveforms at the ankle, 34cm/s.  
PEROA - patent and calcified along length, reduced monophasic waveforms at the ankle, 19cm/s

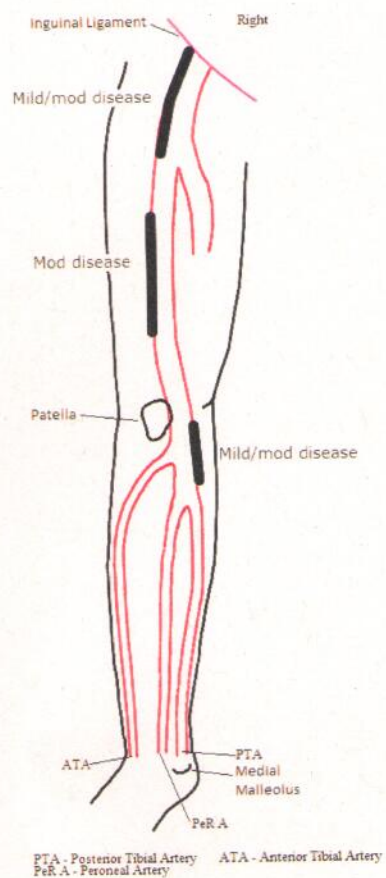
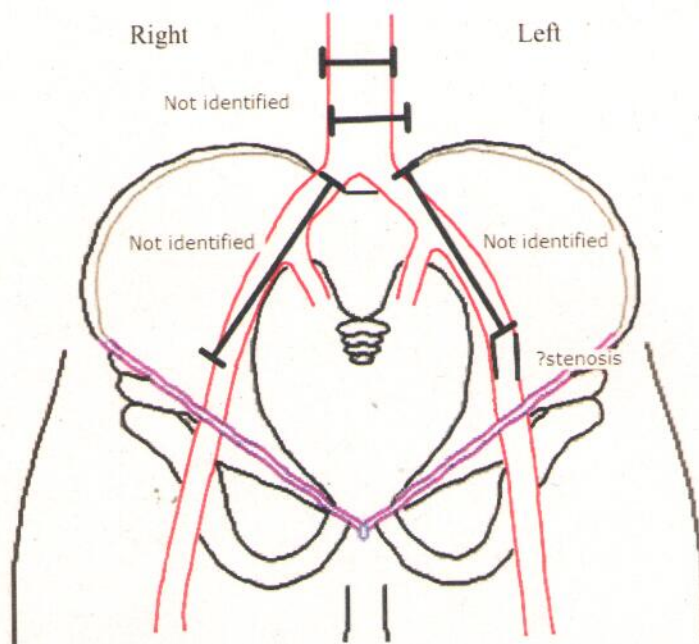
LEFT:

CIA - Not identified due to depth.  
EIA - Not identified prox-mid vessel due to depth. Mid vessel velocities increase from 200cm/s to 398cm/s ?mild stenosis. Vessel is patent distally with turbulent monophasic waveforms, 214cm/s.  
CFA - Patent with moderate disease and good biphasic waveforms, 177cm/s.  
PFA origin - Patent with mild/moderate disease and good biphasic waveforms, 182cm/s.  
SFA - Patent with mild/moderate disease proximally before a moderate stenosis identified in the proximal thigh @70cm, velocities increase from 119cm/s to 373cm/s. Vessel is patent before another moderate stenosis @63cm, velocities increase from 89cm/s to 234cm/s. Mid vessel is patent with diffuse moderate disease, heavily calcified distally, slightly reduced biphasic waveforms, 72cm/s.  
PopA - Patent with mild/moderate disease, slightly reduced biphasic waveforms, 46cm/s.  
TPT is patent. 3 run-off origins noted.  
ATA - patent along length, reduced monophasic waveforms at the ankle, 24cm/s.  
PTA - patent along length, weak monophasic waveforms at the ankle, 14cm/s.  
PEROA - patent and calcified along length, reduced monophasic waveforms at the ankle, 22cm/s

Bilateral resting ABPI's are reduced (Right -0.64 , Left -0.64).

Suggest alternative imaging of iliac vessels as waveforms suggestive of significant disease.

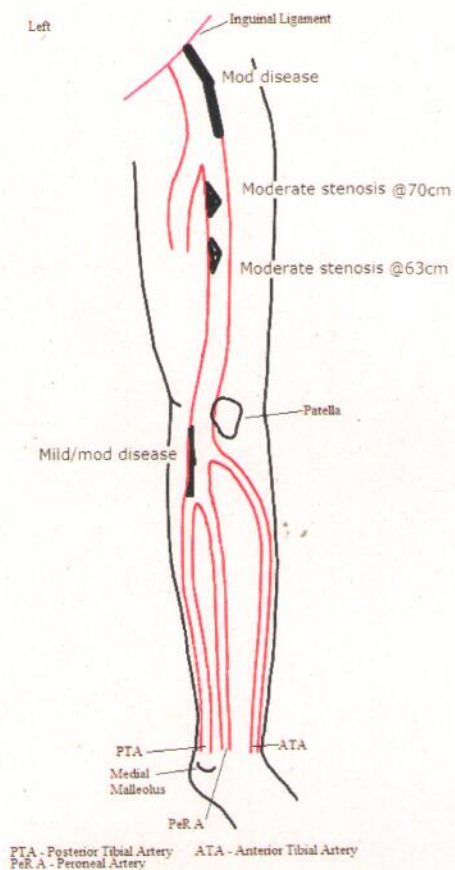




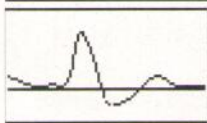
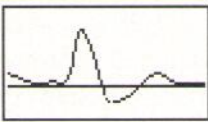
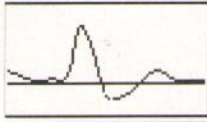
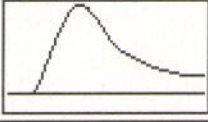
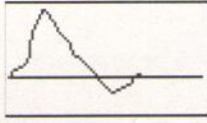
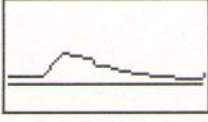
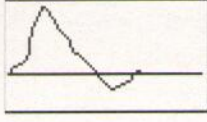
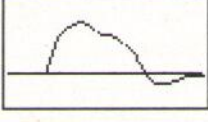
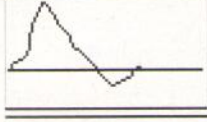

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**Reason** Routine  
**Outcome** Aneurysm, Stenosis mild, Occlusion

Right		Left	
	130 1.00	<b>Brachial</b>	
	Good	<b>Common Femoral</b>	Good 
		<b>High Thigh</b>	
		<b>Low Thigh</b>	
	Good	<b>Popliteal</b>	Slightly Reduced 
		<b>High Calf</b>	
	Good	<b>Peroneal</b>	Reduced 
	Good	<b>Anterior Tibial</b>	Slightly Reduced 
	Good 110 0.85	<b>Posterior Tibial</b>	Reduced 90 0.69 
		<b>Dorsalis Pedis</b>	
		<b>Toe Pressure</b>	
		<b>Post Exercise</b>	

## Notes

### AORTO-ILIAC AND BILATERAL LOWER LIMB ARTERIAL DUPLEX

**AORTA:** Vessel is aneurysmal, measuring 6.9cm AP (Outer-to-Outer 6.9cm LS, TS), vessel is patent with mural thrombus forming approximately a 40-50% reduction in luminal diameter, good biphasic waveforms, 56cm/s.

#### RIGHT:

**CIA:** Vessel appears large calibre from origin tapering distally, measuring 2.1cm AP LS, widely patent with

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good triphasic waveforms, 44cm/s.  
EIA: Obscured by bowel gas.

CFA: Patent with moderate disease, good triphasic waveforms, 121cm/s. (Vessel appears normal and uniform calibre, 1.1cm LS).

PFA origin - Patent with mild disease, good triphasic waveforms, 61cm/s.

SFA - Patent proximally with mild/moderate disease, good triphasic waveforms, 105cm/s. Mild stenosis identified in the mid thigh @51cm prox MM, velocities increasing from 108-262cm/s. Distal SFA is patent with mild calcified disease, slightly reduced biphasic waveforms, 99cm/s.

PopA -Patent with diffuse moderate disease, good triphasic waveforms, 132cm/s. Vessel appears normal and uniform calibre.

TPT is patent. 3 run-off origins noted.

ATA/PTA/PEROA - patent along length with mild calcified disease, good biphasic waveforms at the ankle, 40-22cm/s.

#### LEFT:

CIA: Vessel appears normal and uniform in calibre, measuring 1.5cm AP, widely patent with good triphasic waveforms, 43cm/s.

EIA: Obscured by bowel gas.

CFA: Patent with mild/moderate disease, good triphasic waveforms, 108cm/s. (Vessel appears normal and uniform calibre, 1.1cm LS)

PFA origin - Patent with mild disease, good triphasic waveforms, 56cm/s.

SFA - Patent for ~2cm before vessel is occluded in the proximal thigh. SFA reforms distally @46cm prox MM and is patent with mild/moderate calcified disease, good triphasic waveforms distally, 74cm/s.

PopA -Patent with diffuse moderate disease, slightly reduced monophasic waveforms, 38cm/s. Vessel appears normal and uniform calibre.

TPT is patent. 3 run-off origins noted.

ATA - patent along length with mild calcified disease, slightly reduced biphasic waveforms at the ankle, 32cm/s.

PTA/PEROA - patent along length with mild calcified disease, reduced monophasic waveforms at the ankle, 22cm/s.

Right resting ABPI is within acceptable limits (0.85).

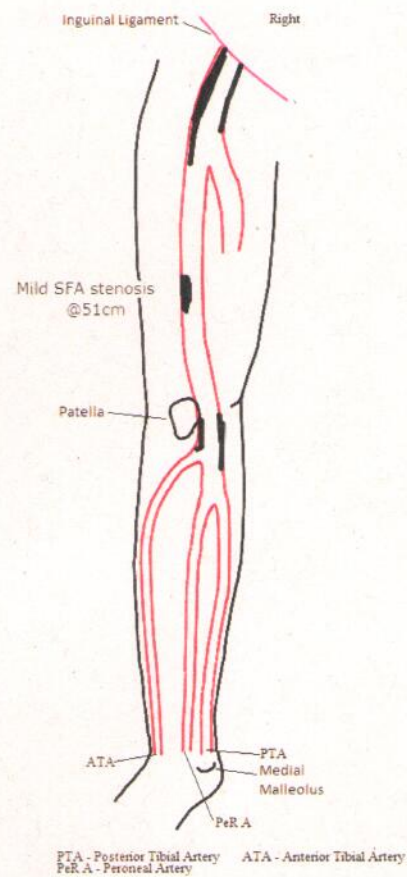
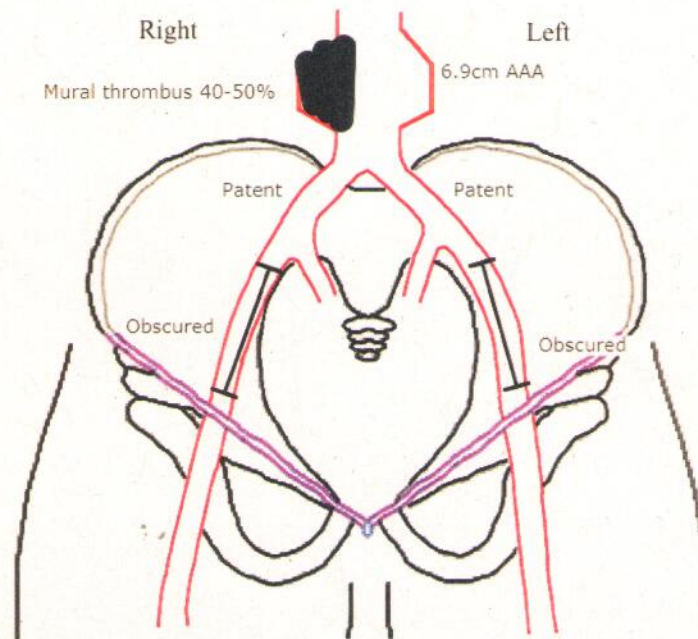
Left resting ABPI is reduced (0.69).

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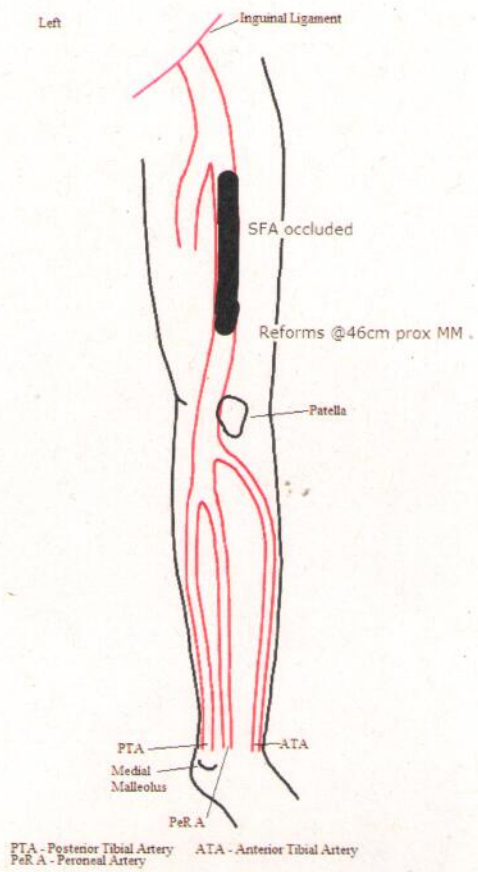
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Reason Claudication  
Outcome Occlusion

## Right

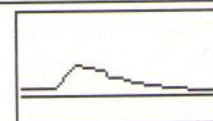
## Left

### Brachial

Absent

### Common Femoral

Reduced



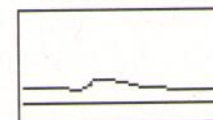
### High Thigh

### Low Thigh

Absent

### Popliteal

Reduced



### High Calf

### Peroneal

Absent

Reduced



Absent

### Anterior Tibial

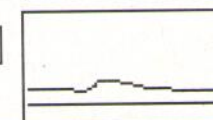
Absent



Absent

### Posterior Tibial

Reduced



### Dorsalis Pedis

### Toe Pressure

### Post Exercise

## Notes

AORTO-ILIAC AND BILATERAL LOWER LIMB ARTERIAL DUPLEX  
\*Previous EVAR and L to R FEM-FEM X-OVER.

EVAR neck: ~2.4cm LS

EVAR SAC: AP 5.4cm TS.

Main body of stent graft: Patent, reduced monophasic waveforms, 23cm/s.

Left limb: Patent, reduced monophasic waveforms, 30cm/s.

Right limb: Occluded from origin and along length.

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RIGHT:

CIA: Not clearly viewed due to bowel gas, however likely occluded.

EIA: Not viewed prox-mid due to bowel gas, vessel is occluded distally, likely occluded proximally.

CFA: Occluded, no flow detected.

PFA: Occluded at origin.

SFA: Occluded along length.

POPA: Occluded along length.

TPT - Occluded.

ATA/PTA/PEROA - Occluded. No flow detected in all crural vessels. Occlusion appears acute in appearance.

LEFT:

CIA: Not clearly viewed due to bowel gas/depth.

EIA: Not viewed proximally. Vessel is patent mid-distally with moderate calcified disease and reduced monophasic waveforms, 49cm/s.

LEFT TO RIGHT FEM-FEM X-OVER:

Occluded along length. No flow detected.

CFA: Patent with moderate disease, reduced monophasic waveforms, 78cm/s.

PFA: Patent proximally with mild/moderate calcified disease, reduced monophasic waveforms, 88cm/s.

SFA: Occluded from origin to distal thigh. Vessel reforms just above the knee crease, where is patent with moderate calcified disease, reduced monophasic waveforms, 42cm/s.

POPA: Patent with diffuse moderate disease, reduced monophasic waveforms, 42cm/s.

TPT is patent, 1 vessel run-off noted.

PTA: Appears occluded proximal calf. Vessel reforms just above the ankle, reduced monophasic waveforms at ankle, 33cm/s.

ATA: Vessel appears occluded proximal calf. No flow detected at ankle.

PEROA: Vessel appears patent along length with mild calcified disease, reduced monophasic waveforms distal calf, 54cm/s.

ABPI's not performed.

Additional comment: ?Haematoma ?seroma noted in the right groin (Measuring 1.7cm AP, 3.2cm ML).

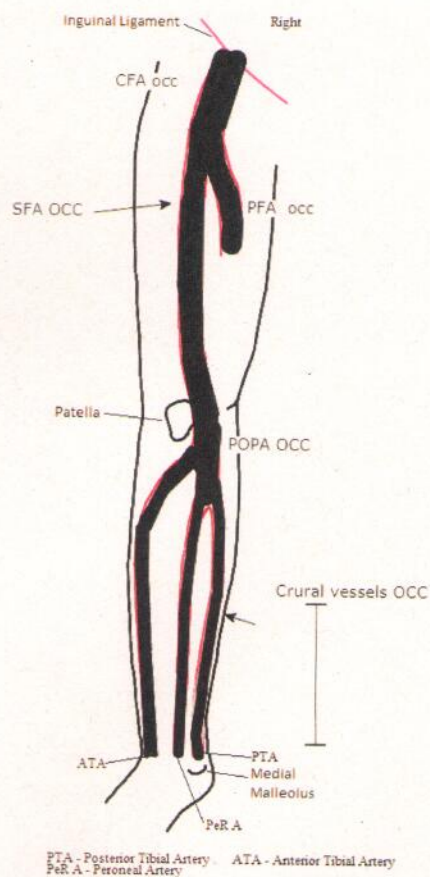
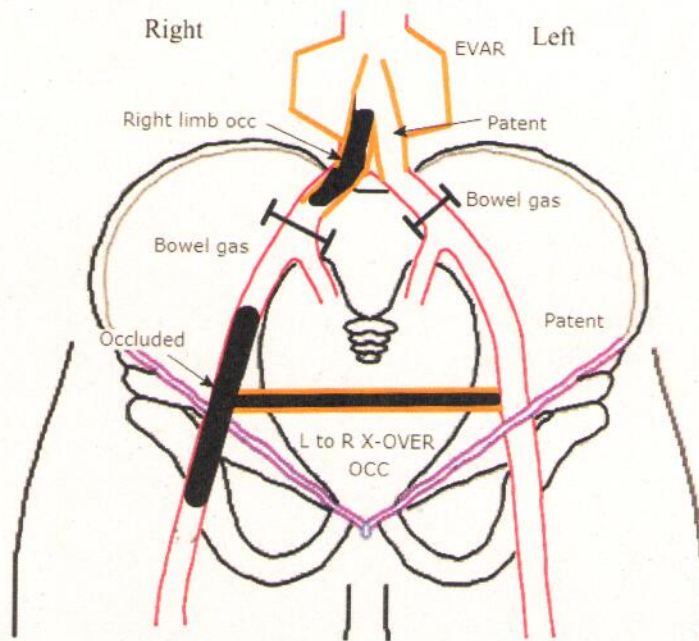
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Assessed by Danny Rimmer

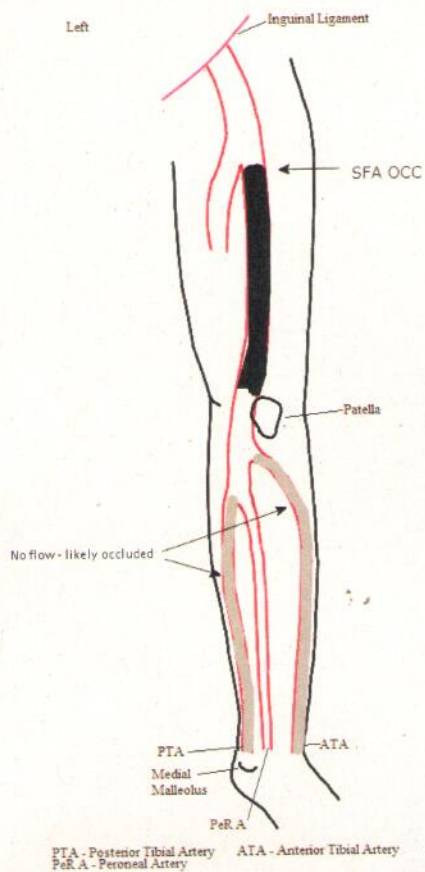
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**Reason** Claudication  
**Outcome** Stenosis mild, Stenosis moderate, Stenosis severe, Occlusion, Calcified

Right		Left
<div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <div style="border: 1px solid black; padding: 2px 10px;">200</div> <div style="border: 1px solid black; padding: 2px 10px;">1.00</div> </div> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Absent</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> <div style="margin-left: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">175</div> <div style="border: 1px solid black; padding: 2px 10px;">0.88</div> </div> </div>	<b>Brachial</b>  <b>Common Femoral</b>  <b>High Thigh</b> <b>Low Thigh</b>  <b>Popliteal</b>  <b>High Calf</b> <b>Peroneal</b>  <b>Anterior Tibial</b>  <b>Posterior Tibial</b>  <b>Dorsalis Pedis</b>  <b>Toe Pressure</b>	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Good</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Slightly Reduced</div> </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">Slightly Reduced</div> <div style="margin-left: 10px;"> <div style="border: 1px solid black; padding: 2px 10px;">170</div> <div style="border: 1px solid black; padding: 2px 10px;">0.85</div> </div> </div>
<div style="border: 1px solid black; padding: 2px 10px; margin-bottom: 5px;">Foot Flex</div> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px 10px;">165</div> <div style="border: 1px solid black; padding: 2px 10px;">.83</div> </div>	<b>Post Exercise</b>	<div style="border: 1px solid black; padding: 2px 10px; margin-bottom: 5px;">Foot Flex</div> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px 10px;">145</div> <div style="border: 1px solid black; padding: 2px 10px;">0.73</div> </div>

### Notes

#### BILATERAL LOWER LIMB ARTERIAL DUPLEX

AORTA - Heavily calcified vessel walls, however appears patent with good biphasic waveforms distally, 150cm/s.

#### RIGHT:

CIA - Patent with moderate disease, good biphasic waveforms, 108cm/s.

EIA - Patent with heavily calcified vessel walls and diffuse moderate disease, good biphasic waveforms

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distally, 211cm/s.

CFA - Patent with visually severe disease, dense and calcified plaque which extends for ~3cm which forms a moderate/severe stenosis distally, PSV 464cm/s.

PFA origin - Partially obscured by shadowing, where seen appears patent with mild disease, good biphasic waveforms, 89cm/s.

SFA - Patent with diffuse mild/moderate calcified disease, good biphasic waveforms proximally becoming slightly reduced distally, 172-119cm/s.

PopA - Patent with diffuse mild/moderate disease, good biphasic waveforms, 94cm/s.

TPT is heavily calcified but appears patent. 3 run-off origins noted.

ATA - Patent proximal calf however vessel appears to occlude in the prox-mid calf remaining occluded to ankle.

PTA - Patent along length, good biphasic waveforms at the ankle, 237cm/s.

PEROA - Patent along length, good biphasic waveforms distally, 51cm/s.

#### LEFT:

CIA - Patent with mild/moderate disease, good biphasic waveforms, 124cm/s.

EIA - Patent with heavily calcified vessel walls and diffuse moderate disease, good biphasic waveforms distally, 250cm/s.

CFA - Patent with visually severe calcified disease however no focal stenosis identified, good (turbulent) triphasic waveforms, 171-203cm/s.

PFA origin - Partially obscured by shadowing, where seen appears patent with turbulent biphasic waveforms, 170cm/s.

SFA - Patent with diffuse mild/moderate calcified disease prox-mid thigh, good biphasic waveforms proximally becoming slightly reduced mid thigh, 241-98cm/s. There appears to be a mild stenosis in the distal thigh @50cm, with velocities increasing from 145cm/s to 313cm/s. Distal SFA is then patent with mild calcified disease, slightly reduced biphasic waveforms, 148cm/s.

PopA - Patent with diffuse mild/moderate disease, good biphasic waveforms, 117cm/s.

TPT is heavily calcified but appears patent. 3 run-off origins noted.

ATA - Patent proximal-mid calf before mixed plaque forming visually a moderate stenosis @18cm however velocities only increasing from 150cm/s to 252cm/s. Patent at ankle with slightly reduced biphasic waveforms, 32cm/s.

PTA - Patent prox-mid calf before a severe stenosis identified distal calf @12cm, with velocities increasing from 63cm/s to 247cm/s. Patent at ankle with slightly reduced biphasic waveforms, 55cm/s.

PEROA - Patent along length, good biphasic waveforms distally, 48cm/s.

Right resting ABPI's are within normal limits (0.88) with a 10mmHg pressure drop however remain normal limits following a 1-minute foot flex exercise challenge (0.83).

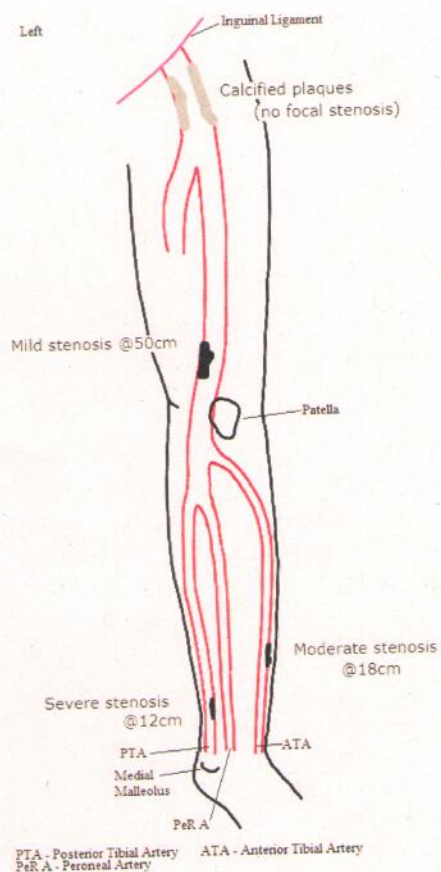
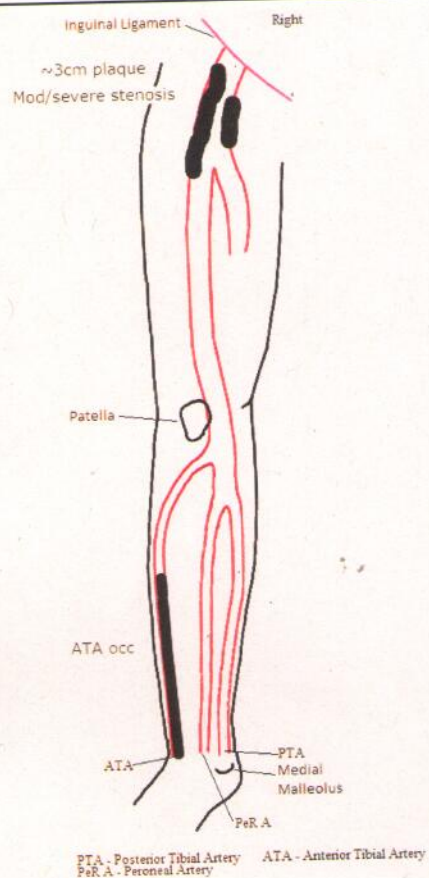
Left resting ABPI's are within normal limits (0.85) becoming reduced following a 1-minute foot flex exercise challenge (0.73).

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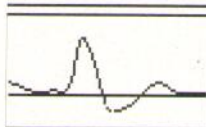


**Reason** Graft synthetic Aorta-Bi-fem  
**Outcome** Stenosis mild

## Right

## Left

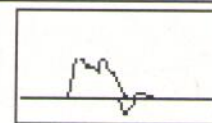
### Brachial



Good

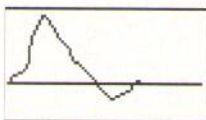
### Common Femoral

Slightly Reduced



### High Thigh

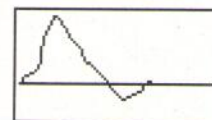
### Low Thigh



Good

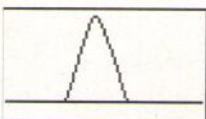
### Popliteal

Good



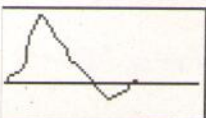
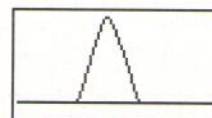
### High Calf

### Peroneal



Good

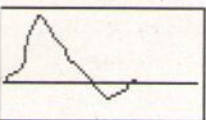
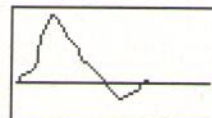
Good



Good

### Anterior Tibial

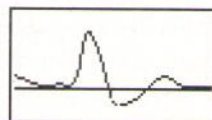
Good



Good

### Posterior Tibial

Good



### Dorsalis Pedis

### Toe Pressure

### Post Exercise

## Notes

BILATERAL LOWER LIMB ARTERIAL DUPLEX ASSESSMENT (PREVIOUS AORTO -> BI FEMORAL GRAFT)

Aorta - Poorly visualised due to bowel gas/body habitus however appears patent with slightly reduced triphasic waveforms, 33cm/s.

## RIGHT

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GRAFT - Difficult to clearly visualise proximally due to bowel gas however appears patent where seen, proximal anastomosis - good triphasic waveforms, 67cm/s. Main body of graft widely patent with good biphasic waveforms, 39cm/s. Distal anastomosis - widely patent, good triphasic waveforms, 77cm/s.

CFA - patent with mild/moderate calcified disease, good triphasic waveforms, PSV 88cm/s.

PFA (origin) - appears mildly stenosed with dense and calcified plaques at origin, PSV 263cm/s.

SFA - patent and heavily calcified along length with multiple obscured regions, diffuse mild/moderate dense disease, good biphasic waveforms throughout, PSV 148-133cm/s.

PopA - patent with mild/moderate calcified disease, good biphasic waveforms, PSV 124cm/s.

TPT - heavily calcified however patent with 3 vessel run off origins identified.

ATA - heavily calcified - not fully assessed however patent at the ankle with good biphasic waveforms, PSV 88cm/s.

PTA - heavily calcified - not fully assessed however patent at the ankle with good biphasic waveforms, PSV 95cm/s.

PerA - heavily calcified - not fully assessed however patent distal calf with good monophasic waveforms, PSV 34cm/s.

#### LEFT

GRAFT - Difficult to clearly visualise proximally due to bowel gas however appears patent where seen, proximal anastomosis - good triphasic waveforms, 113cm/s. Main body of graft widely patent with good biphasic waveforms, 70cm/s. Distal anastomosis - widely patent, good triphasic waveforms, 131cm/s.

CFA - patent with mild disease, slightly reduced (?due to large calibre vessel) triphasic waveforms, PSV 29cm/s.

PFA (origin) - patent with mild disease, good triphasic waveforms, 101cm/s.

SFA - patent and heavily calcified along length with multiple obscured regions, moderate disease at origin then diffuse mild/moderate calcified disease, good biphasic waveforms throughout, PSV 170 - 96cm/s.

PopA - patent with dense/calcified plaque (~2.3cm length) forming a mild stenosis identified in the mid vessel, velocities increasing from 100cm/s to 218cm/s. Distal vessel patent with good biphasic waveforms.

TPT - heavily calcified however patent with 3 vessel run off origins identified.

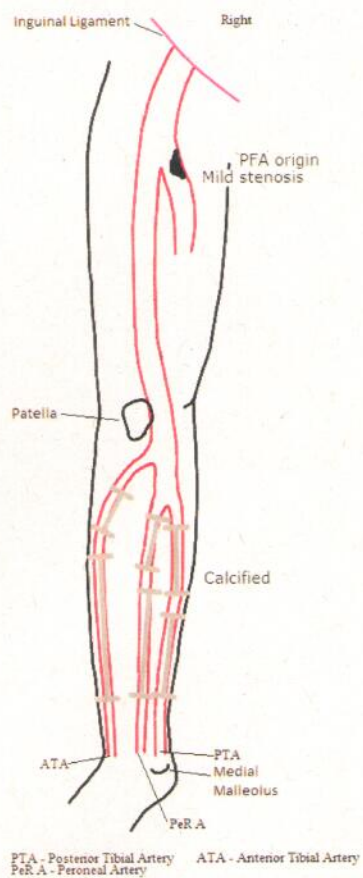
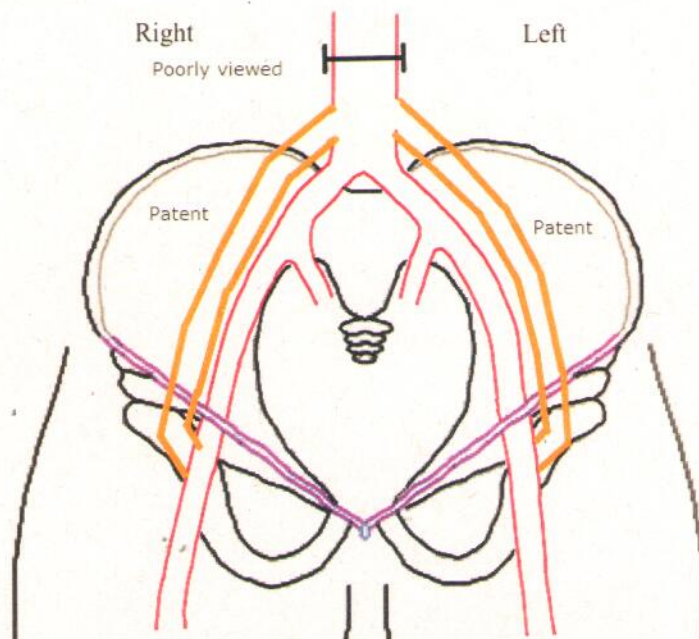
ATA - heavily calcified - not fully assessed however patent at the ankle with good biphasic waveforms, PSV 80cm/s.

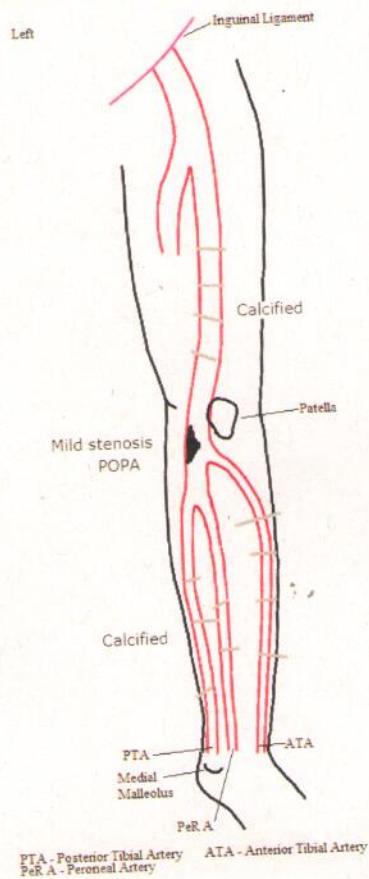
PTA - heavily calcified - not fully assessed however patent at the ankle with good biphasic waveforms, PSV 102cm/s.

PerA - heavily calcified - not fully assessed however patent distal calf with good monophasic waveforms, PSV 30cm/s.

ABPI's not performed due to extensive crural vessel calcification and patient has small open wound distal calf.



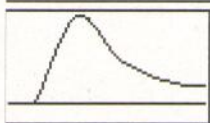
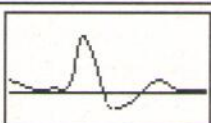
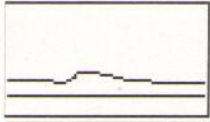

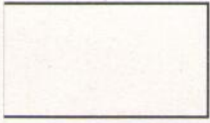
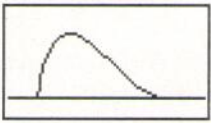
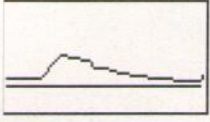
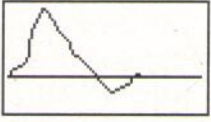
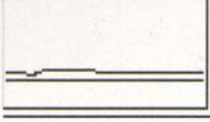
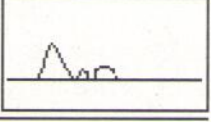




Assessed by Danny Rimmer  
Printed on 04/07/2019 at 9:10 am

Checked by \_\_\_\_\_

**Reason** Post-op  
**Outcome** Stenosis severe, Occlusion, Calcified

Right		Left
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">160</div> <div style="border: 1px solid black; padding: 2px;">1.00</div> </div>	Brachial	
 <div style="border: 1px solid black; padding: 2px; width: 150px;">Good</div>	Common Femoral	<div style="border: 1px solid black; padding: 2px; width: 150px;">Good</div> 
	High Thigh	
	Low Thigh	
 <div style="border: 1px solid black; padding: 2px; width: 150px;">Reduced</div>	Popliteal	<div style="border: 1px solid black; padding: 2px; width: 150px;">Reduced</div> 
	High Calf	
 <div style="border: 1px solid black; padding: 2px; width: 150px;">Absent</div>	Peroneal	<div style="border: 1px solid black; padding: 2px; width: 150px;">Reduced</div> 
 <div style="border: 1px solid black; padding: 2px; width: 150px;">Reduced</div>	Anterior Tibial	<div style="border: 1px solid black; padding: 2px; width: 150px;">Slightly Reduced</div> 
 <div style="border: 1px solid black; padding: 2px; width: 150px;">Weak</div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px;">65</div> <div style="border: 1px solid black; padding: 2px;">0.41</div> </div>	Posterior Tibial	<div style="border: 1px solid black; padding: 2px; width: 150px;">Slightly Reduced</div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px;">110</div> <div style="border: 1px solid black; padding: 2px;">0.69</div> </div> 
	Dorsalis Pedis	
	Toe Pressure	
	Post Exercise	

## Notes

### BILATERAL AORTO-ILIAC AND LOWER LIMB ARTERIAL DUPLEX

Aorta - Heavily calcified vessel walls, however appears patent with good monophasic waveforms, 68cm/s.

#### RIGHT:

CIA - Patent with moderate calcified disease, good monophasic waveforms, 92cm/s.

EIA - Difficult to visualise any flow in the prox-mid segment due to heavy vessel wall calcification ?full patency. Suggest alternative imaging of this area. Distal vessel is patent with good monophasic waveforms,

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119cm/s.

Distal EIA/Proximal CFA - Dense calcified plaques forming a severe stenosis noted, extend for ~2cm, velocities increase to 559cm/s.

PFA origin - Calcified however appears stenosed at origin, PSV 303cm/s.

SFA - Occluded along length.

PopA - Flow reforms proximal vessel, and is then patent with moderate calcified disease, reduced monophasic waveforms, 23cm/s.

TPT is heavily calcified ?patency.

PTA - patent along length, weak monophasic waveforms at the ankle, 18cm/s.

ATA - Patent and heavily calcified with weak/tatty flow proximally ?patency in the mid calf, is patent at the ankle with reduced monophasic waveforms, 28cm/s.

PEROA - No flow identified ?patency ?occluded ?calcified.

#### LEFT:

CIA - Patent with mild calcified disease, good triphasic waveforms, 105cm/s.

EIA - Patent proximally, difficult to visualise flow in the mid segment due to heavy vessel wall calcification. Distal vessel is patent with good triphasic waveforms, 235cm/s.

CFA - Patent with mild calcified disease, good triphasic waveforms, 68cm/s.

PFA origin - Patent with mild calcified disease, good triphasic waveforms, 173cm/s.

SFA - Occluded at origin. Flow then reforms in the proximal thigh and is patent with diffuse mild/moderate calcified disease, reduced monophasic waveforms, 36-15cm/s until ?short 4cm occlusion noted in the distal thigh @55cm, vessel is heavily calcified in this area.

PopA - Patent with moderate calcified disease, reduced monophasic waveforms, 36cm/s.

TPT is patent. 3 vessel run off noted.

PTA - patent along length, slightly reduced monophasic waveforms at the ankle, 49cm/s.

ATA - Patent along length, slightly reduced biphasic waveforms at ankle, 53cm/s.

PEROA - Appears patent along length, reduced monophasic waveforms distal calf, 26cm/s.

Right resting ABPI is severely reduced (0.41).

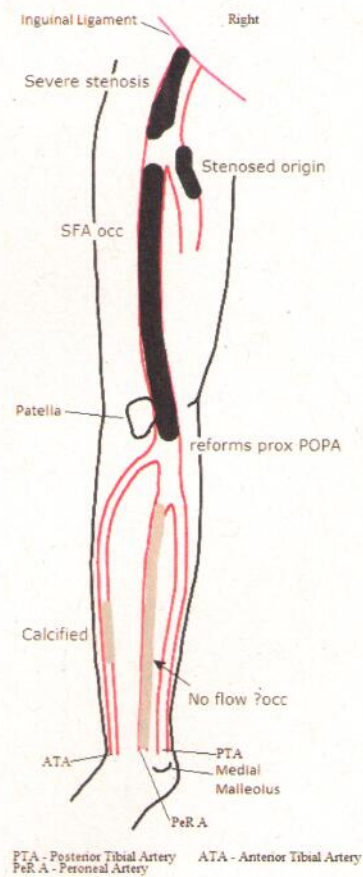
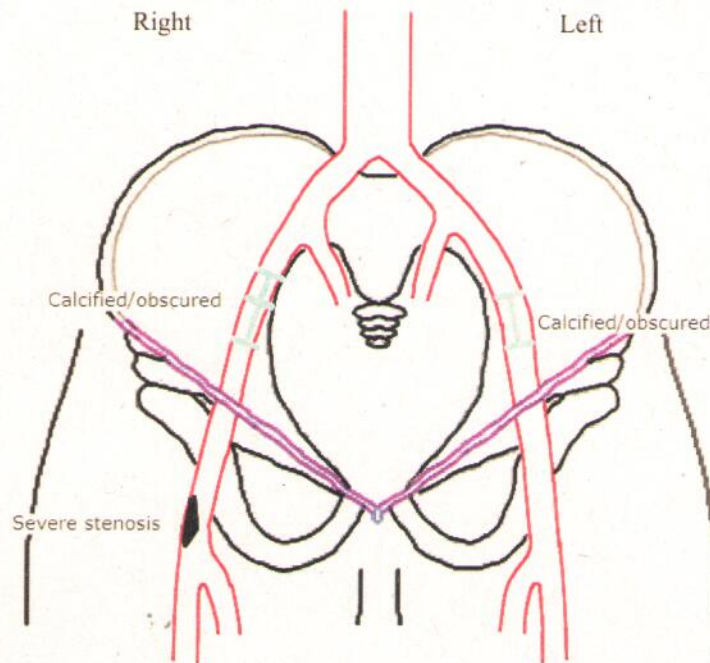
Left resting ABPI is reduced (0.69).

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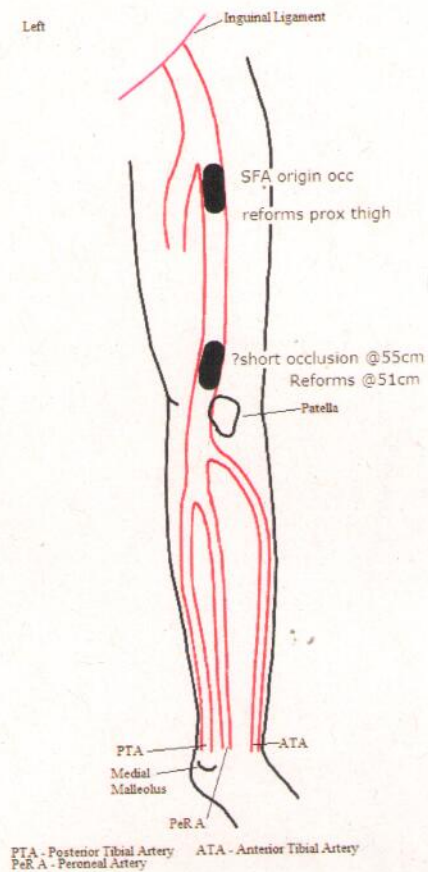
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Assessed by Danny Rimmer  
Printed on 04/07/2019 at 9:14 am

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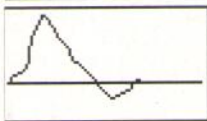
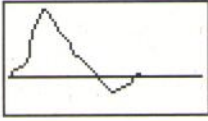
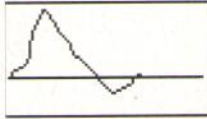
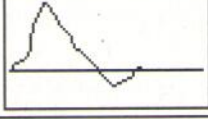
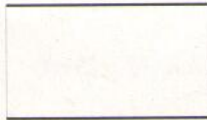
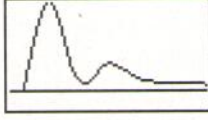
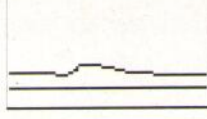
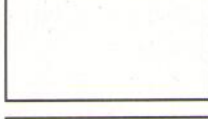






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Printed on 04/07/2019 at 9:14 am

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Reason Routine  
Outcome Stenosis mild, Stenosis severe, Occlusion, Calcified

Right		Left
<b>Brachial</b>		
	Good	
<b>Common Femoral</b>		
	Good	
<b>High Thigh</b>		
<b>Low Thigh</b>		
	Absent	
<b>Popliteal</b>		
	Reduced	
<b>High Calf</b>		
	Absent	
<b>Peroneal</b>		
<b>Anterior Tibial</b>		
<b>Posterior Tibial</b>		
<b>Dorsalis Pedis</b>		
<b>Toe Pressure</b>		
<b>Post Exercise</b>		

## Notes

### BILATERAL LOWER LIMB ARTERIAL DUPLEX

#### RIGHT:

CFA, PFA origin, SFA - Patent with diffuse mild calcified disease, heavily calcified vessel walls, good/slightly reduced biphasic waveforms, 174 - 47cm/s.

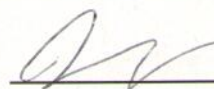
PopA - patent with moderate calcified disease prox-mid vessel before a mild stenosis mid-distal vessel, with velocities increasing from 62cm/s to 169cm/s.

TPT has heavily calcified vessel walls however is severely stenosed, with velocities increasing from 97cm/s

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to 428cm/s.

PTA - Severely stenosed at origin, velocities over 543cm/s. Vessel then appears patent for a short section proximal calf before appears to occlude prox/mid calf.

ATA - Appears severely stenosed near origin before vessel then occludes in the proximal calf. Vessel does reform just above ankle where is patent with reduced monophasic waveforms, 28cm/s.

PEROA - Not identified ?occluded.

LEFT:

CFA, PFA origin, SFA - Patent with diffuse mild calcified disease, heavily calcified vessel walls, good biphasic waveforms, 100cm/s - 60cm/s.

PopA - patent with moderate calcified disease, good biphasic waveforms, 139cm/s.

TPT has heavily calcified vessel walls, appears patent with 3 vessel run off origins noted.

PTA - appears patent for a short section proximal calf before appears to occlude prox/mid calf. Reforms distal calf and is patent for a short section with reduced monophasic waveforms, 58cm/s - however PTA appears to occlude again at level of ankle.

ATA - Appears severely stenosed near origin (PSV 422cm/s) before vessel then occludes in the proximal calf - no flow at ankle.

PEROA - Not identified proximal calf ?occluded. Vessel does however reform in the mid calf and is patent distal calf with good monophasic waveforms, 90cm/s.

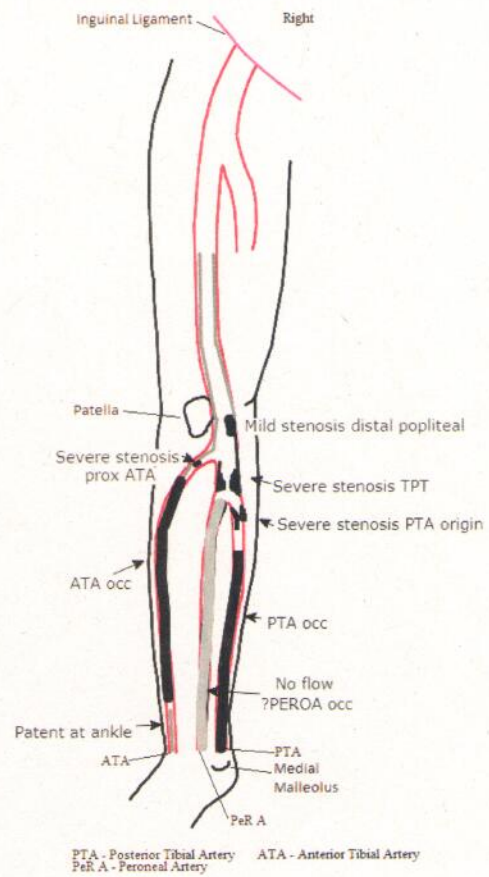
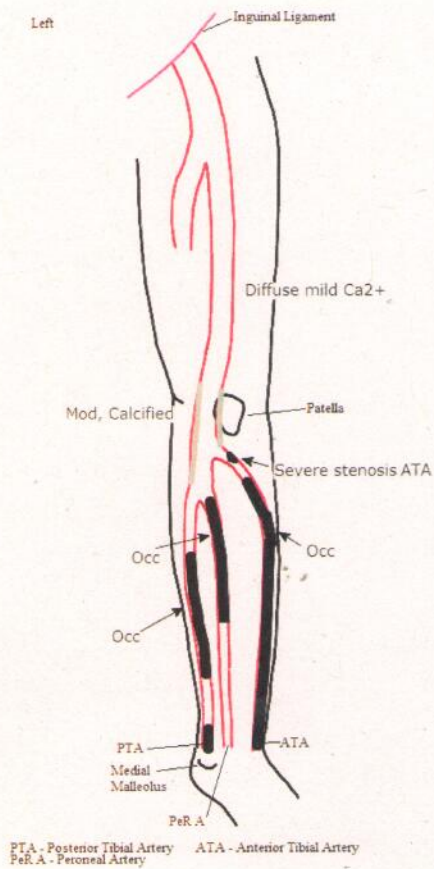
ABPI's not performed due to extensive calcification and weak/absent flow at ankle and patient began to feel unwell.

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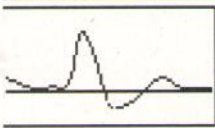
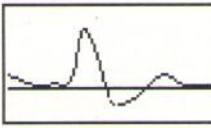
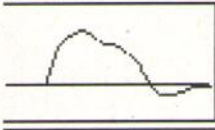
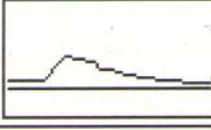
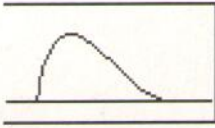

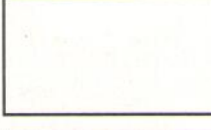

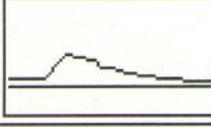
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Reason Claudication  
Outcome Occlusion, Stenosis Moderate, Stenosis Severe

Right			Left	
	145 1.00	Brachial		
	Good	Common Femoral	Good	
		High Thigh		
		Low Thigh		
	Slightly Reduced	Popliteal	Reduced	
		High Calf		
	Slightly Reduced	Peroneal	Weak	
		Anterior Tibial	Absent	
	Good	Posterior Tibial	Reduced	
	130 0.90		105 0.72	
		Dorsalis Pedis		
		Toe Pressure		
		Post Exercise		
	Foot Flex		Foot Flex	
	115 0.79		50 0.34	

## Notes

### BILATERAL AORTO-ILIAC AND LOWER LIMB ARTERIAL DUPLEX ASSESSMENT

Abdominal aorta is widely patent with good monophasic waveforms and PSV 85cm/s. The abdominal aorta appears of normal calibre (maximum AP =1.5cm - Inner to Inner), with no evidence of focal dilatation or aneurysm identified.

## RIGHT

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EIA - Appears patent with mild calcified disease, good (turbulent) triphasic waveforms, 215cm/s.

EIA - Appears patent along length with mild/moderate calcified disease, no focal stenosis identified, good but turbulent triphasic waveforms, 247-256cm/s.

CFA - Visually appears moderately/severely diseased with dense and calcified plaques. Appears moderately stenosed mid vessel with velocities increasing from 250cm/s to 461cm/s.

PFA - Heavily calcified at origin, PSV 395cm/s however mildly diseased visually ?raised velocities due to CFA disease.

SFA - Patent prox-mid vessel with diffuse mild/moderate calcified disease, slightly reduced biphasic waveforms, 241-126cm/s. Vessel appears moderately stenosed in the mid thigh @57cm, with velocities increasing from 126cm/s to 330cm/s. Vessel is then heavily calcified ?patency for 5cm with raised velocities ~330cm/s ?moderately stenosed lesion with large collateral vessel noted. Distal SFA is then patent with reduced monophasic waveforms, 35cm/s.

POPA - Patent with mild disease, slightly reduced biphasic waveforms, 76cm/s.

TPT appears heavily calcified however patent with 3 vessel run off noted.

PTA - Patent and calcified along length with mild disease, good monophasic waveforms, 78cm/s.

ATA - Patent prox-mid calf before vessel then occludes and remains occluded to ankle.

PEROA - Heavily calcified along length however vessel appears patent where seen, slightly reduced biphasic waveforms distally, 37cm/s.

#### LEFT:

CIA - Appears patent with mild calcified disease, good (turbulent) triphasic waveforms, 246cm/s.

EIA - Visually vessel appears moderately stenosed at origin, PSV 349cm/s. Vessel is then patent with mild/moderate calcified disease. Appears patent along length with mild/moderate calcified disease, no focal stenosis identified, good but turbulent triphasic waveforms.

CFA - Visually appears severely diseased with dense and calcified plaques, good triphasic waveforms 228cm/s.

SFA/PFA bifurcation - Heavily calcified, velocities increase from 173cm/s to 325cm/s however no significant haemodynamic stenosis.

PFA - Patent and heavily calcified at origin, turbulent triphasic waveforms, PSV 274cm/s.

SFA - Patent prox-mid vessel with diffuse mild/moderate calcified disease, good proximally becoming reduced monophasic waveforms mid vessel, 258-70cm/s. Severe stenosis identified in the mid thigh @58cm, with velocities increasing from 48cm/s to over 528cm/s. Vessel is then heavily calcified/partially obscured for 6cm. Distal SFA is then patent with reduced monophasic waveforms, 78cm/s.

POPA - Patent with mild disease, reduced monophasic waveforms, 56cm/s.

TPT appears heavily calcified however patent with 3 vessel run off noted.

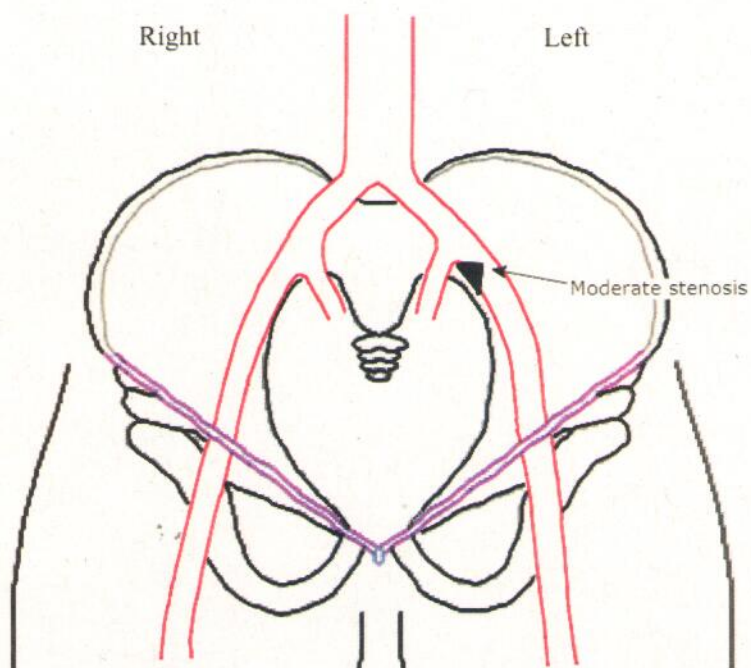
PTA - Patent and calcified prox-distal with mild disease before a moderate stenosis identified, velocities increasing from 50cm/s to 147cm/s. PTA is patent at ankle with reduced monophasic waveforms, 58cm/s.

ATA - Patent at origin before vessel then occludes proximal calf and remains occluded to ankle.

PEROA - Heavily calcified along length however vessel appears patent proximally and distally ?mid vessel patency, slightly reduced biphasic waveforms distally, 25cm/s.



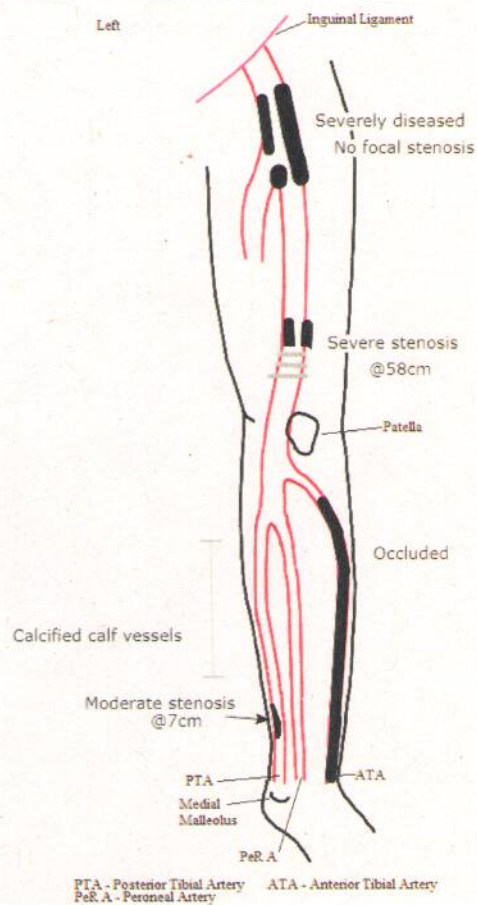
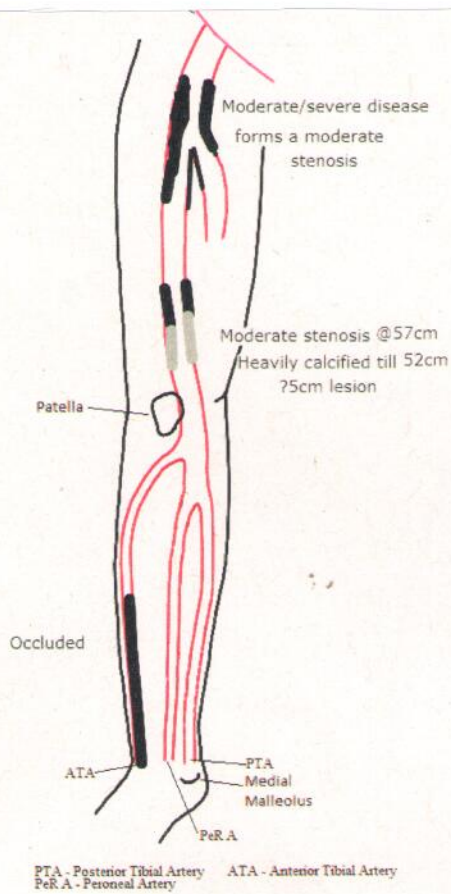
Right resting ABPI is good (0.9) becoming reduced (0.75) following a 1 minute exercise challenge.  
Left resting ABPI is reduced (0.72) becoming severely reduced (0.34) following a 1 minute exercise challenge.



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Reason Claudication

Outcome Occlusion

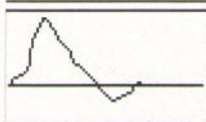
Right

Left

160

1.00

Brachial

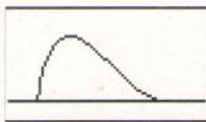


Good

Common Femoral

High Thigh

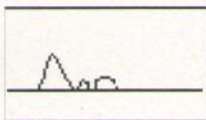
Low Thigh



Reduced

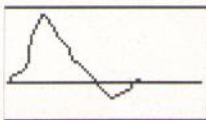
Popliteal

High Calf



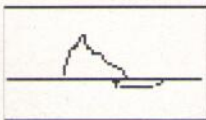
Slightly Reduced

Peroneal



Good

Anterior Tibial



Slightly Reduced

Posterior Tibial

125

0.78

Dorsalis Pedis

Toe Pressure

Foot Flex

Post Exercise

120

0.75

Notes

RIGHT LOWER LIMB ARTERIAL DUPLEX

RIGHT:

CFA - Patent with moderate calcified disease, good bi/triphasic waveforms, 102cm/s.

PFA origin - Patent with mild disease, good biphasic waveforms, 125cm/s.

SFA - Occluded from origin with mixed, dense and calcified plaques noted. SFA remains occluded to mid thigh (>20cm occlusion), where it re-forms @57cm proximal medial malleolus. Mid - distal SFA is then patent with mild/moderate calcified disease, slightly reduced biphasic waveforms, 51cm/s.

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PopA - Patent with mild/moderate calcified disease, reduced monophasic waveforms, 41cm/s.

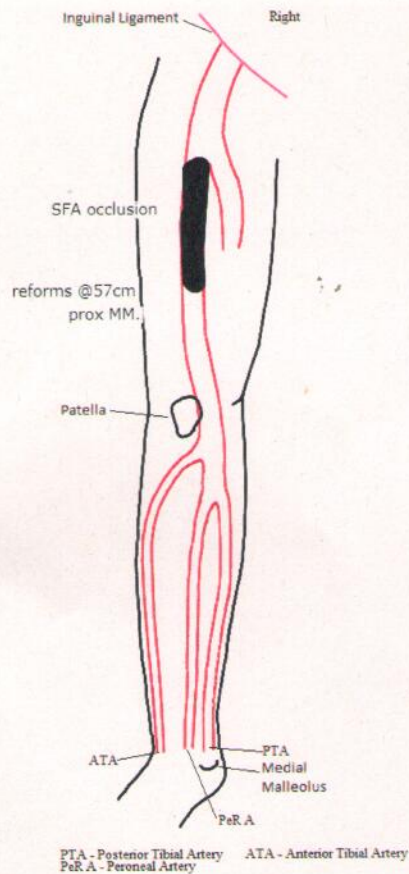
TPT is patent. 3 run-off origins noted.

PTA - calcified vessel walls however patent along length, slightly reduced biphasic waveforms at the ankle, 41cm/s.

ATA - calcified vessel walls however patent along length, good biphasic waveforms at the ankle, 52cm/s.

PEROA - calcified vessel walls however patent distal calf, slightly reduced monophasic waveforms distal calf, 21cm/s.

Right resting ABPI is reduced (0.78) a remains reduced following a 1 minute exercise challenge (0.75).



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Printed on 27/06/2019 at 2:40 pm

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Reason	Routine
Outcome	Occlusion

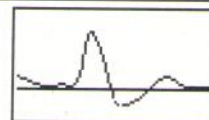
Right

Left

Brachial

Common Femoral

Good

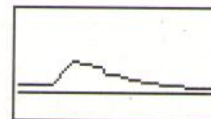


High Thigh

Low Thigh

Popliteal

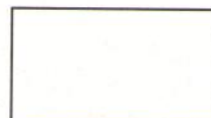
Reduced



High Calf

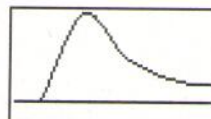
Peroneal

Absent



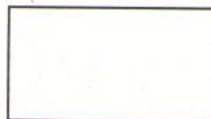
Anterior Tibial

Slightly Reduced



Posterior Tibial

Absent



Dorsalis Pedis

Toe Pressure

Post Exercise

## Notes

### LEFT LOWER LIMB ARTERIAL DUPLEX

CFA - Patent with mild/moderate disease, good triphasic waveforms, 88cm/s.

PFA origin - Patent with mild disease, good biphasic waveforms, 116cm/s.

SFA - Patent with diffuse mild/moderate disease prox-mid thigh, slightly reduced monophasic waveforms, 80 - 68cm/s. Distal SFA remains occluded, measured @49cm proximal to medial malleolus.

PopA - Flow reforms proximally, then is patent with diffuse moderate disease, reduced monophasic waveforms, 25cm/s.

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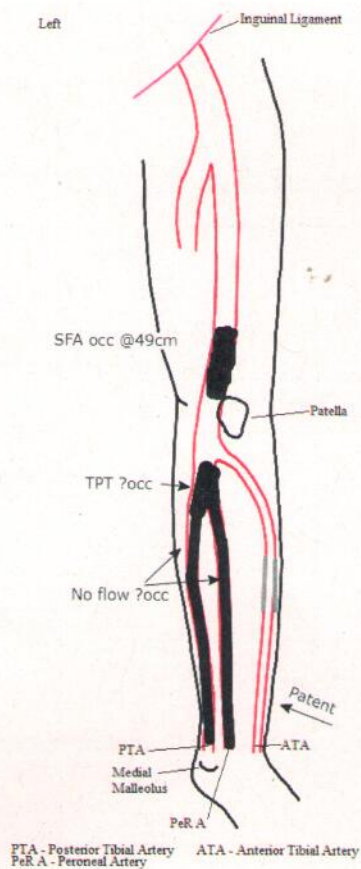
TPT not identified ?occluded. ATA origin noted only.

ATA - patent along length (difficult to visualise flow mid calf ?due to calcification) with slightly reduced monophasic waveforms at the ankle, 96cm/s.

PTA - No flow identified along length - appears occluded.

PEROA - No flow identified along length - appears occluded.

ABPI's not performed due to ulceration distal calf.



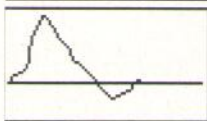
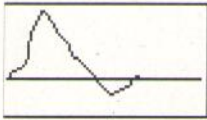
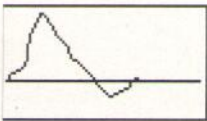
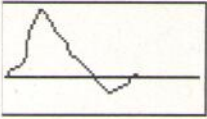
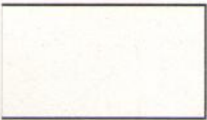
Assessed by Danny Rimmer

Printed on 27/06/2019 at 2:38 pm

Checked by \_\_\_\_\_



Reason Routine  
Outcome Stenosis mild, Occlusion

Right	Left
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">150</div> <div style="border: 1px solid black; padding: 2px;">1.00</div> </div>	Brachial
 <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">Good</div>	Common Femoral
	High Thigh
	Low Thigh
 <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">Good</div>	Popliteal
	High Calf
 <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">Good</div>	Peroneal
 <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">Good</div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px;">160</div> <div style="border: 1px solid black; padding: 2px;">1.07</div> </div>	Anterior Tibial
 <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">Absent</div>	Posterior Tibial
	Dorsalis Pedis
	Toe Pressure
<div style="border: 1px solid black; padding: 2px; margin-top: 10px;">Foot Flex</div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px;">120</div> <div style="border: 1px solid black; padding: 2px;">0.80</div> </div>	Post Exercise

### Notes

#### RIGHT LOWER LIMB ARTERIAL DUPLEX

CFA - Patent with mild/moderate calcified disease, good biphasic waveforms, 152cm/s.

PFA origin - Patent with mild disease, good biphasic waveforms, 152cm/s.

SFA - Patent proximal thigh with diffuse mild calcified disease before a mild stenosis identified prox/mid thigh @67cm, velocities increasing from 94cm/s to 206cm/s. Mid-distal thigh is patent with mild calcified disease - heavily calcified vessel walls distal thigh, good biphasic waveforms, PSV 223cm/s.

PopA - Patent with mild calcified disease, good biphasic waveforms, 93cm/s.

Assessed by Danny Rimmer

Printed on 27/06/2019 at 2:37 pm

Checked by

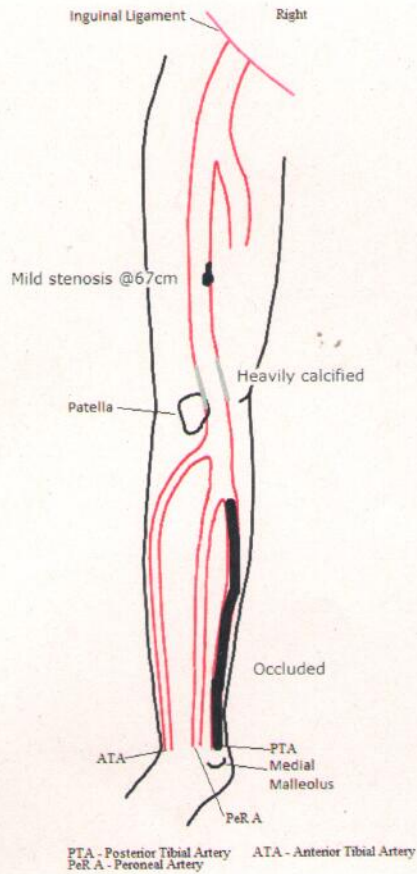
TPT is patent. 2 run-off origins noted.

ATA - Patent along length with mild disease, good biphasic waveforms, 218cm/s - 99cm/s.

PTA - Occluded from origin to ankle.

PEROA - Patent along length with good biphasic waveforms distal calf, 52cm/s.

Right resting ABPI is good (1.07) with a 40 mmHg reduction in systolic ankle pressure following a 1-minute foot flex exercise challenge, however ABPI still remain borderline within acceptable limits (0.8).



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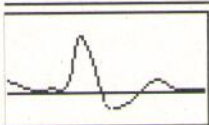
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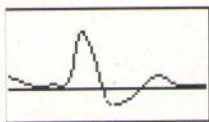
Reason Claudication  
Outcome Stenosis severe

## Right

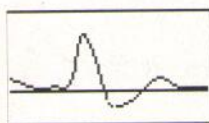
135 1.00



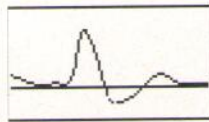
Good



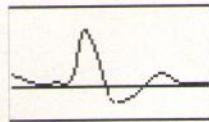
Good



Good



Good



Good  
150 1.11

## Brachial

## Common Femoral

Slightly Reduced

## High Thigh

## Low Thigh

## Popliteal

Reduced

## High Calf

## Peroneal

Reduced

## Anterior Tibial

Good

## Posterior Tibial

Slightly Reduced  
115 0.85

## Dorsalis Pedis

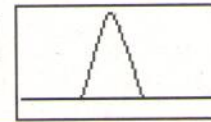
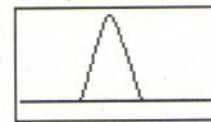
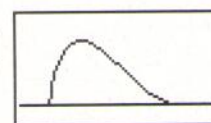
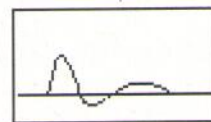
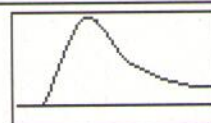
## Toe Pressure

Foot Flex  
150 1.11

## Post Exercise

Foot Flex  
100 0.74

## Left



## Notes

### LEFT AORTO-ILIAC AND BILATERAL LOWER LIMB ARTERIAL DUPLEX

AORTA: Widely patent with good mono/triphasic waveforms, 112cm/s.

### RIGHT:

CFA - Patent with mild/moderate disease, good triphasic waveforms, 209cm/s.

PFA origin, SFA and PopA - patent with mild disease, good triphasic waveforms, 179 - 89cm/s.

TPT is patent. 3 run-off origins noted.

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ATA and PTA - patent with good triphasic waveforms at the ankle, 69cm/s and 94cm/s respectively.  
PEROA - Patent distal calf with good triphasic waveforms, 63cm/s.

LEFT:

CIA - Patent with mild disease, good monophasic waveforms, 110cm/s.

EIA - Severe stenosis at origin, with velocities increasing from 108cm/s to 649cm/s. Mid-distal vessel is then widely patent with slightly reduced triphasic waveforms, 141cm/s.

CFA - Patent with mild/moderate disease, slightly reduced monophasic waveforms, 83cm/s.

PFA - Patent with mild disease, good mono/triphasic waveforms, 112cm/s.

SFA - Patent along length with mild calcified disease, slightly reduced proximally becoming reduced monophasic waveforms distally, 104 - 68cm/s.

PopA - Widely patent with reduced monophasic waveforms, 54cm/s.

TPT is patent. 3 run-off origins noted.

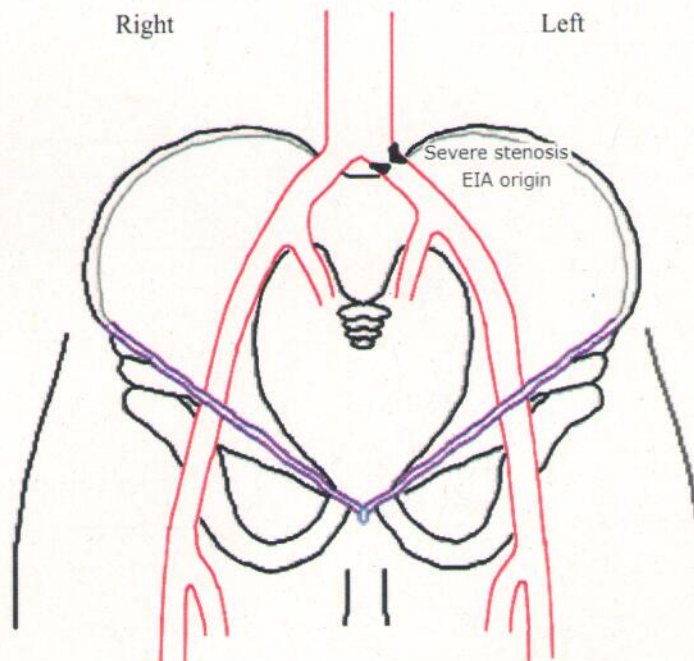
ATA - patent along length, good monophasic waveforms at the ankle, 49cm/s.

PTA - patent along length, slightly reduced monophasic waveforms at the ankle, 47cm/s.

PEROA - patent along length, reduced monophasic waveforms at the ankle, 36cm/s.

Right resting ABPI is good (1.11) with no reduction in systolic ankle pressure following a 1-minute foot flex exercise challenge (1.11).

Left resting ABPI is within acceptable limits (0.85) becoming reduced following a 1-minute foot flex exercise challenge (0.74).



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Reason Claudication  
Outcome Occlusion

Right

210

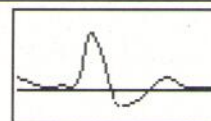
1.00

Left

Brachial

Common Femoral

Good



High Thigh

Low Thigh

Popliteal

Reduced



High Calf

Peroneal

Reduced



Anterior Tibial

Reduced



Posterior Tibial

Reduced

100

0.48



Dorsalis Pedis

Toe Pressure

Post Exercise

## Notes

### LEFT LOWER LIMB ARTERIAL DUPLEX

#### LEFT:

CFA - Patent with mild calcified disease, good triphasic waveforms, 255cm/s.

PFA origin - Patent with mild disease, good triphasic waveforms, 268cm/s.

SFA - Vessel is occluded from origin to the distal thigh. SFA reforms distally @48cm and is patent with mild disease and reduced monophasic waveforms, 30 - 79cm/s.

PopA - Patent with mild disease, reduced monophasic waveforms, 38cm/s.

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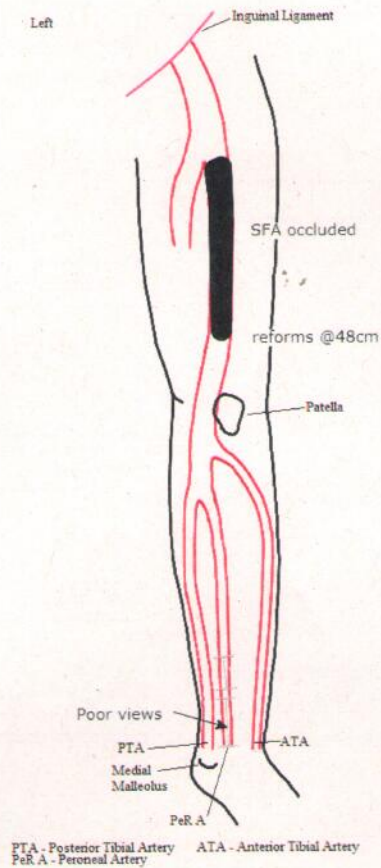
TPT is patent. 3 run-off origins noted.

ATA - Patent along length with mild disease, reduced monophasic waveforms at ankle, 32cm/s.

PTA - Patent along length with mild disease, reduced monophasic waveforms at ankle, 51cm/s.

PEROA - Patent to mid calf with reduced monophasic waveforms, 46cm/s. Unable to visualise distally due to depth.

Left resting ABPI's are severely reduced (0.48).



Assessed by Danny Rimmer

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