

2017 MID-ATLANTIC
CONFERENCE

7th *ANNUAL* CURRENT CONCEPTS IN
VASCULAR THERAPIES

2017

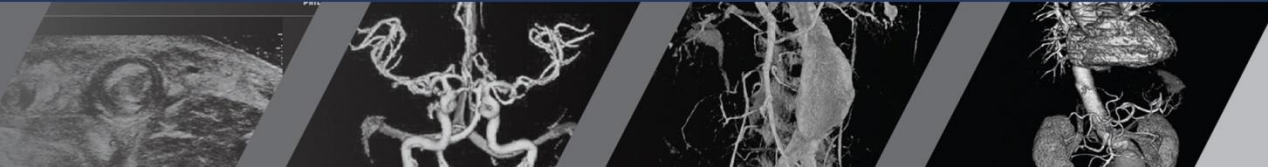


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Sentara Vascular
Specialists
Assistant Professor of
Surgery EVMS

Referral for Leg Ulcer

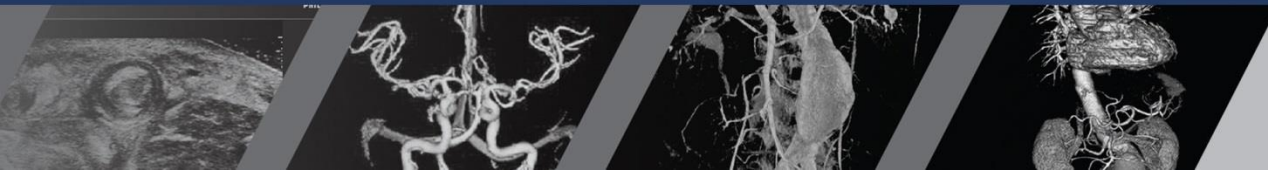
Disclosures

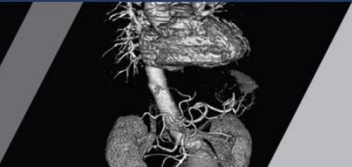
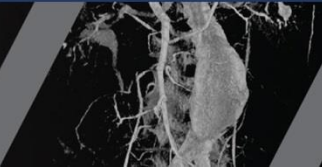
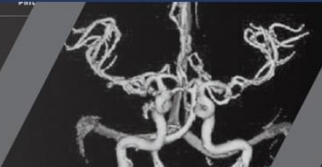
- None



Case Presentation

- 51 year old male
- Presents with a recurrent Right Medial Ankle ulcer
- Medical History
 - HTN, Aortic Dissection, DVT, PE, PAD, Varicose Veins, Hx of Leg Ulcer.
- Surgical History
 - Subtotal Aortic Arch Debranching
 - Thoracic Endo-graft with visceral stenting



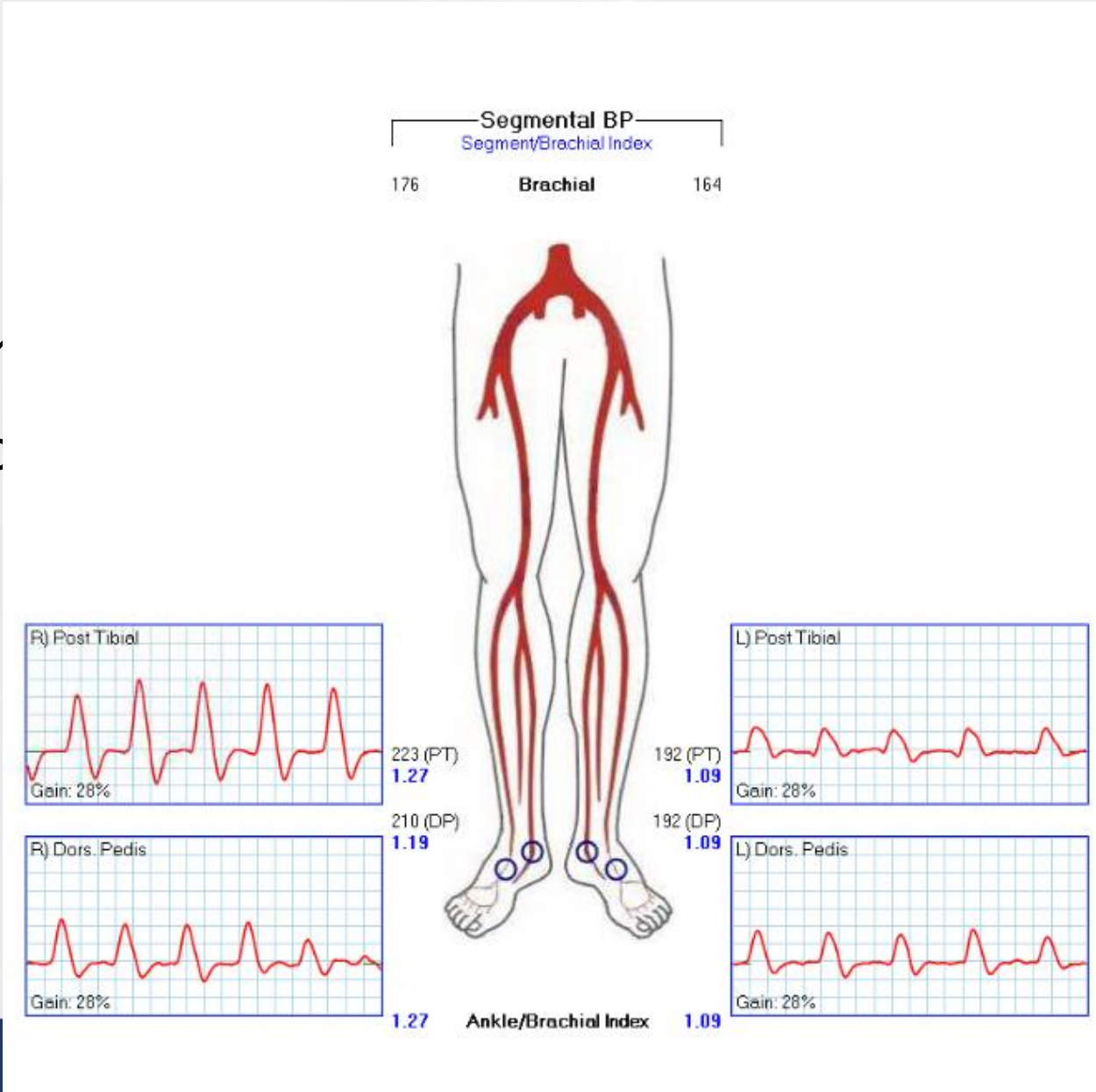


What do we look for on Exam

- Presence of skin changes
 - Hemosiderin Deposition
 - Thickened Skin
 - Surrounding Erythema
 - Presence of Varicose Veins
 - Presence of limb edema
- Distal pulses



- With
- Lo



REFERRING PHYSICIAN FNP

PRIMARY COMPLAINT (INDICATION) V.V. Ulcer

RV FV POP PTV PER GSV LSV

L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L

Spontaneous
Phasic
Distal augmentation
Aug. w/release
Reflux
Compressibility

KEY

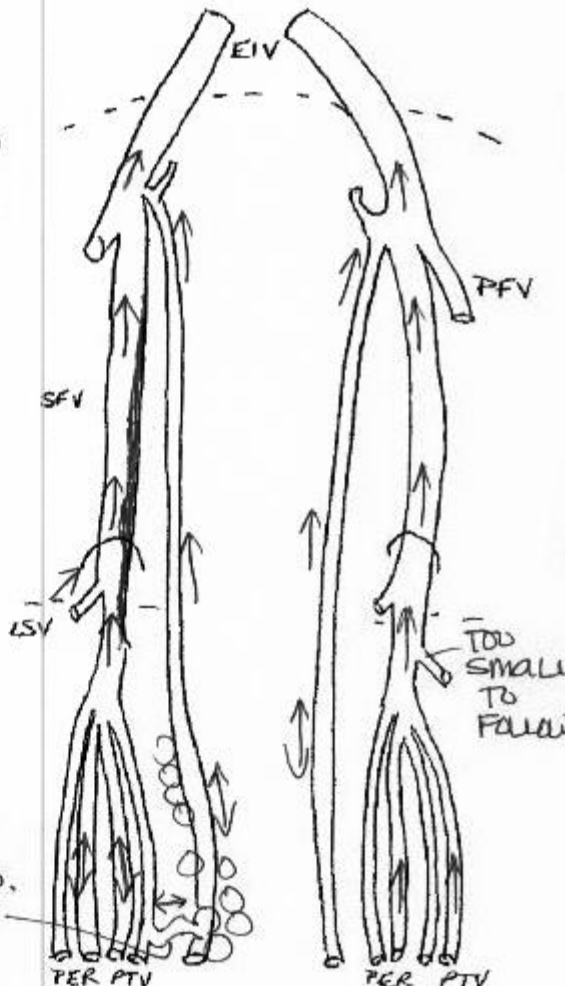
- + Normal
- ↓ Decreased
- 0 Absent
- P Pulsatile
- C Continuous
- R Rigid (Chronic)
- Deferred

VARICOSE VEINS

	Right	Left
greatest VV Diameter	5.2mm	2.7mm
V Diameter @ Knee	6 mm	3.4mm

POSITION

- Reverse Trendelenburg (supine)
- Standing



Primary: ① RT FV evidence of chronic non-occlusive DVT
② LT LSV no evidence DVT.
RT incomp perf noted dist RT leg
of v.v.'s noted, area of ulcer

Tech AG PR

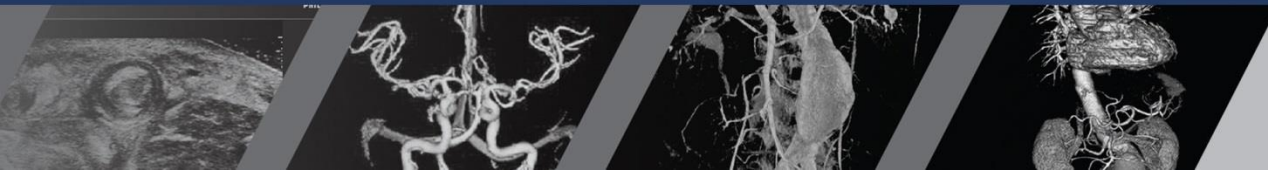
Physician: _____ (date) _____ (Initials)

- Media
- Hemos
- History
- Compl
- Venou

ankle.
e.
legs.

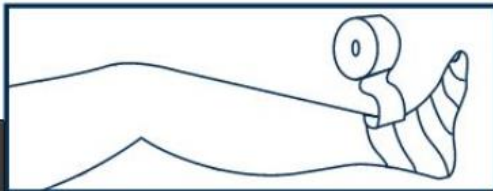
So... Now what?

- GSV ok at the Junction
- Perforator vein in the medial ankle.
- Chronic DVT in the femoral
- Compression
- Elevation
- Correction of venous problems

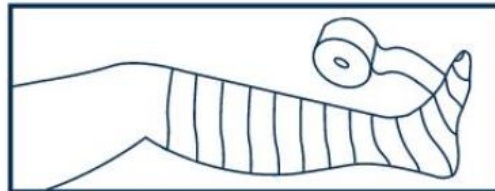


Compression - Unnas Boots

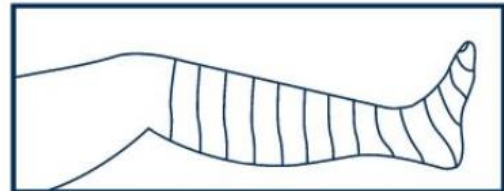
What is an
Unna Boot?



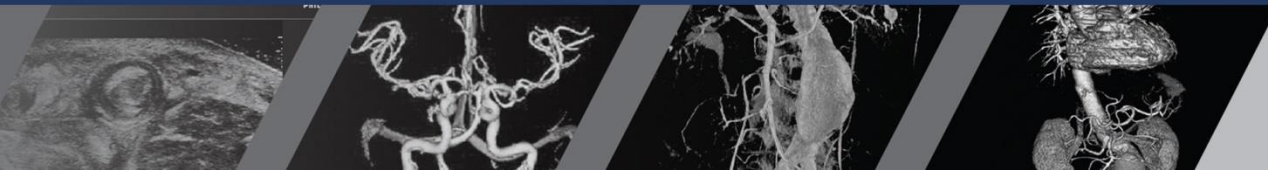
1. With the foot and ankle positioned at a right angle to the leg begin wrapping the bandage without tension at the base of the toes. Wrap the leg with a light tension, overlapping each layer in a spiral fashion.



2. Wrap all the way up the leg stopping 1 - 2 inches below the posterior knee. Complete the bandage and smooth and mold with your hands.



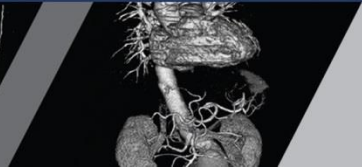
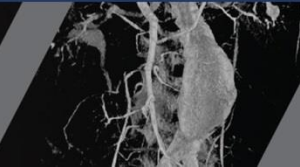
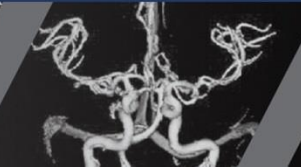
3. Apply an elastic or cohesive bandage (not included), for compression, maintaining an even tension, and cover completely.



Unnas Boots

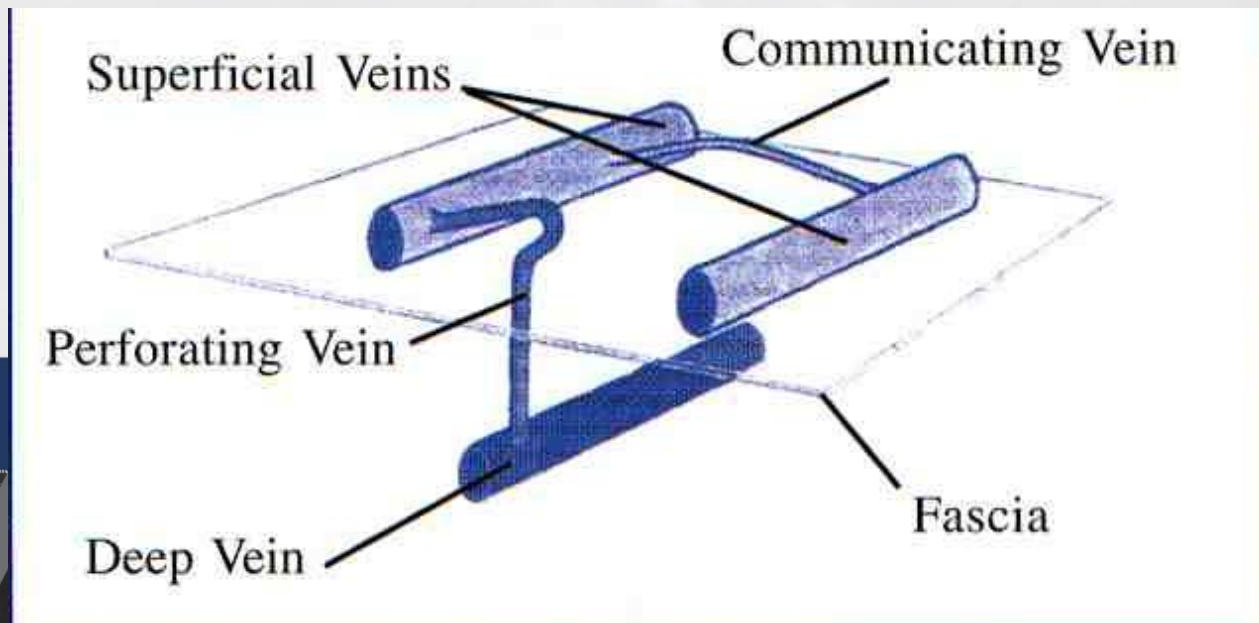
- Multi-layer short stretch compression
- Changed weekly
- Allows the placement of a skin care product directly to the wound and compression on the source venous reflux.





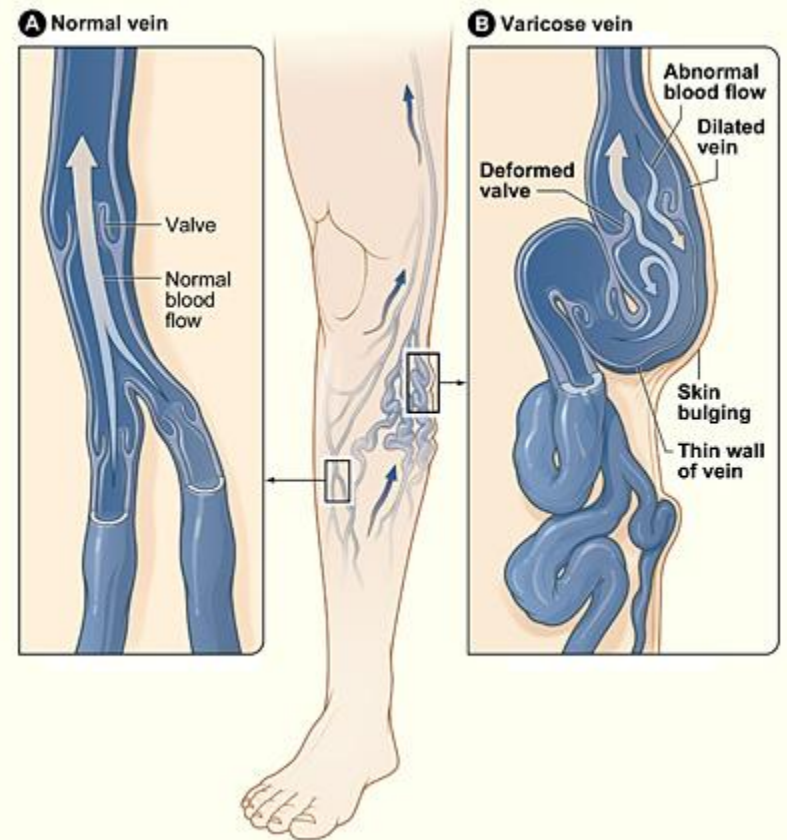
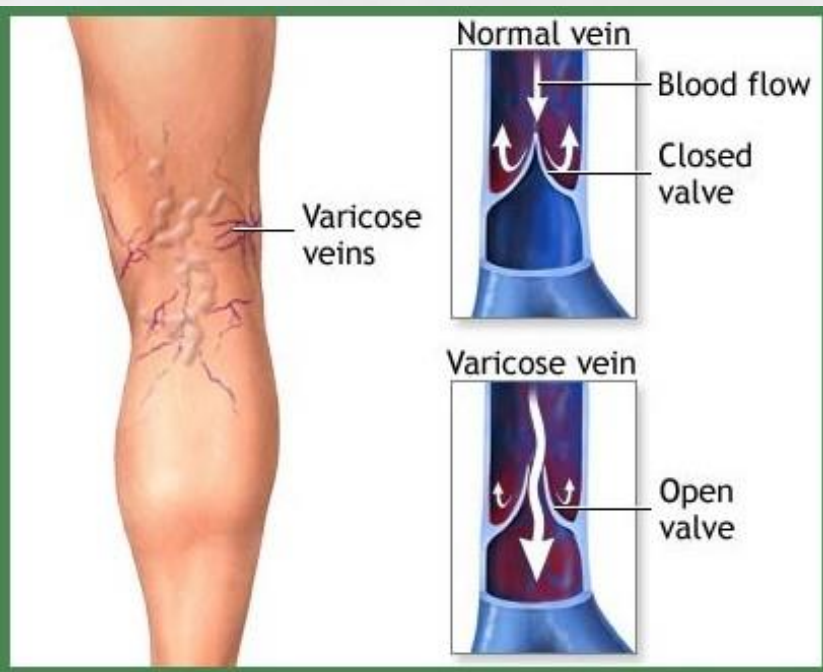
What Veins Do We Need To Treat?

- Deep Venous System
 - accompany arteries
 - usually same names
 - lies deep to the fascia
 - has valves
- Superficial Venous System
 - located just below the skin
 - have valves
- Perforator Veins
 - connect deep and superficial systems

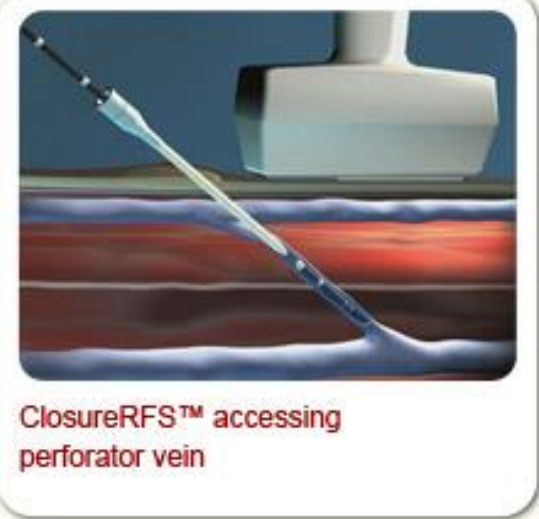
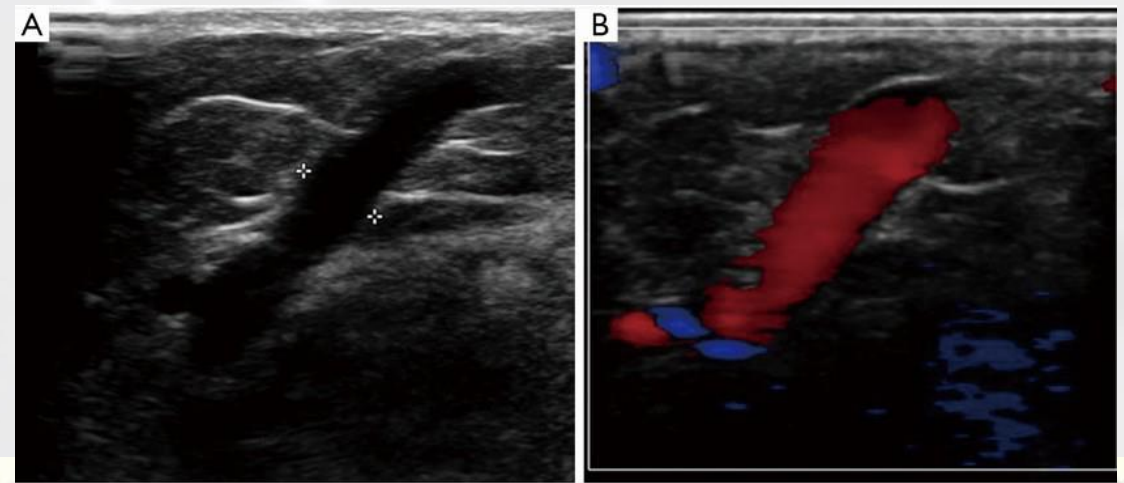
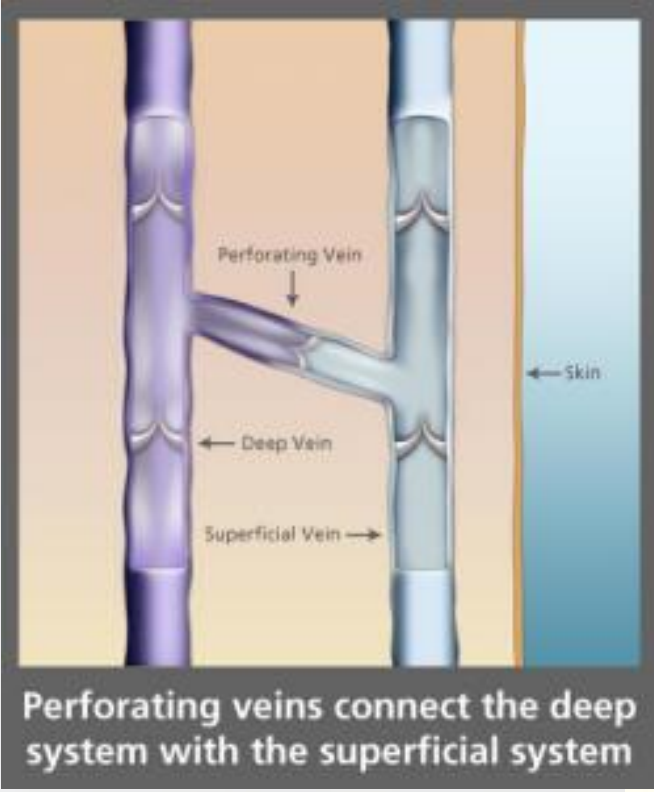


Venous Insufficiency

- Heredity, time, DVT, and injury can damage the venous valves causing venous valve incompetency



Perforator Endovenous Ablation



REFERRING PHYSICIAN Csm

PRIMARY COMPLAINT (INDICATION) Right leg swelling

CFV FV POP PTV PER GSV LSV

R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L
+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
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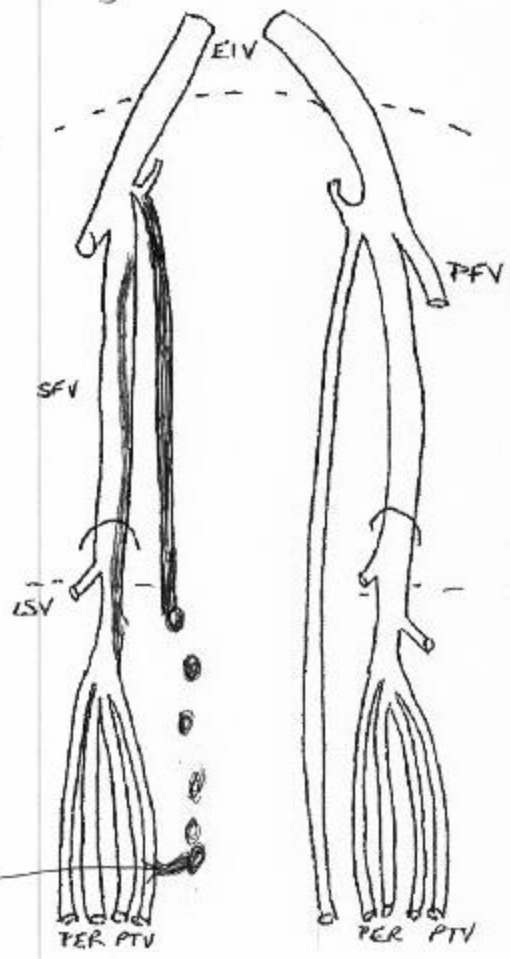
KEY
 + Normal
 ↓ Decreased
 0 Absent
 P Pulsatile
 C Continuous
 R Rigid (Chronic)
 - Deferred
 Partial Compression
 2° Chronic DVT

VARICOSE VEINS

Thrombosed

	Right	Left
Largest VV Diameter	mm	mm
GSV Diameter @ Knee	NA mm	mm

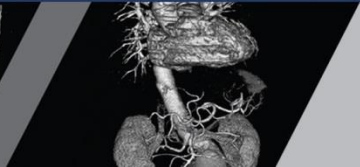
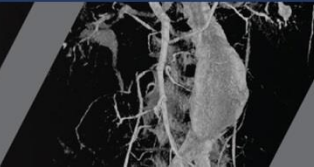
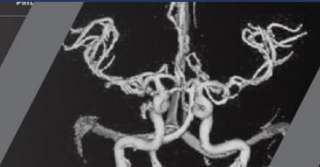
POSITION
 Reverse Trendelenburg (supine)
 Standing



Thrombosed Perf. SIP ablation

Summary:
 ① No evidence of acute DVT in the right LE or left PFV
 ② Chronic DVT seen in the right FV and popliteal vein with reflux.
 ③ Thrombosed right GSV and perforator vein. SIP ablation.
 ④ Patent right LSV with reflux.

D. Chaler BS, RVT, RDMS



So. Perforator Is Closed, Now What?

- Chronic DVT Treatment with Post Thrombotic Syndrome or Venous Ulcers

—A-B-C

- Activity
- Blood Thinners
- Compression

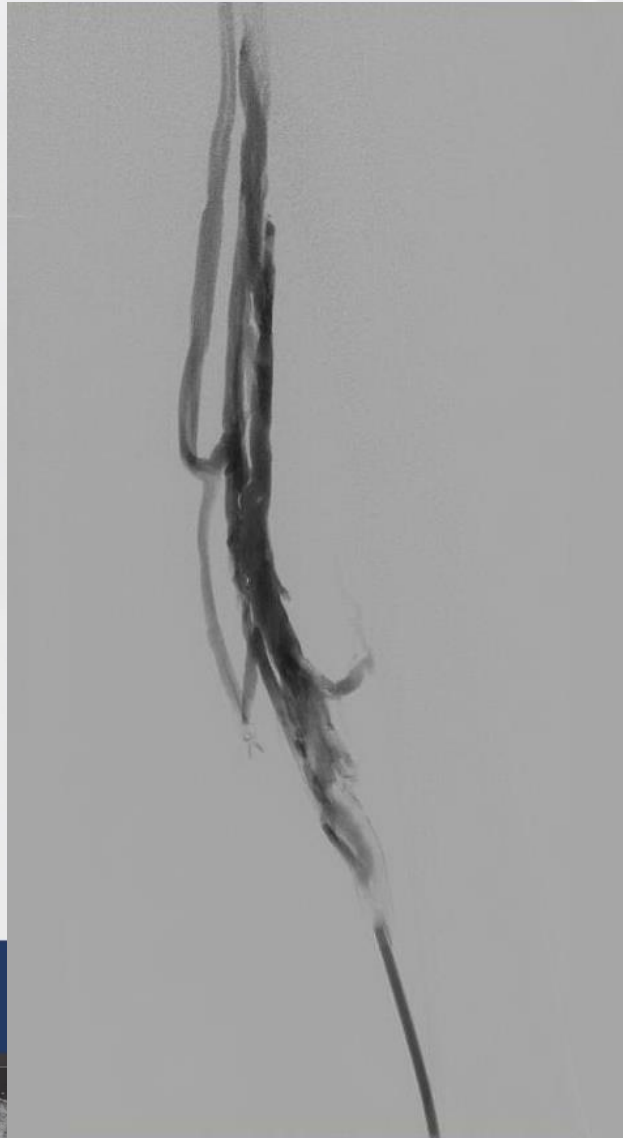


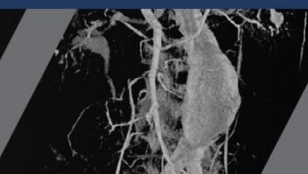
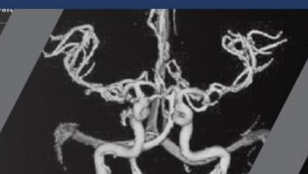
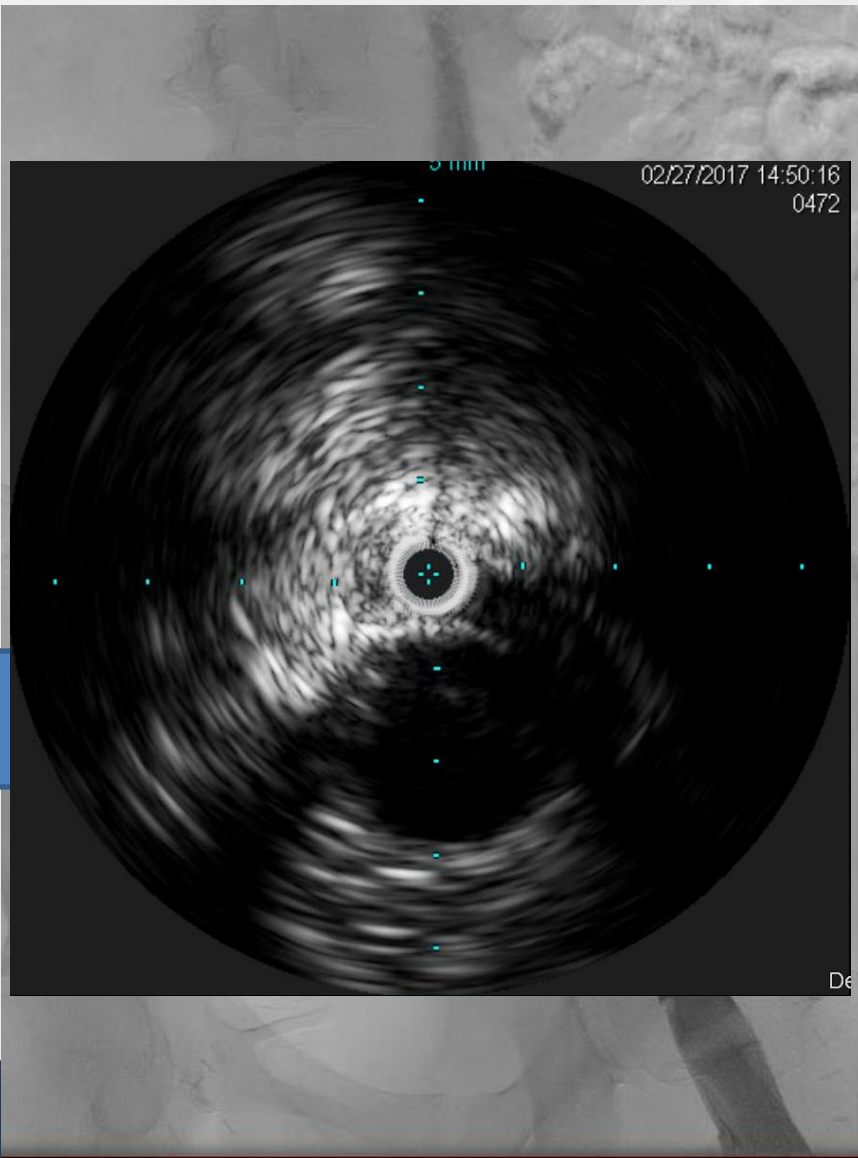
Is There An Obstructive Component?

- Chronic Femoral DVT
 - Compression is mandatory.
 - Limited role for venography with surgical treatment
- Proximal (Iliac/IVC) DVT
 - Conventional role for venography with surgical treatment



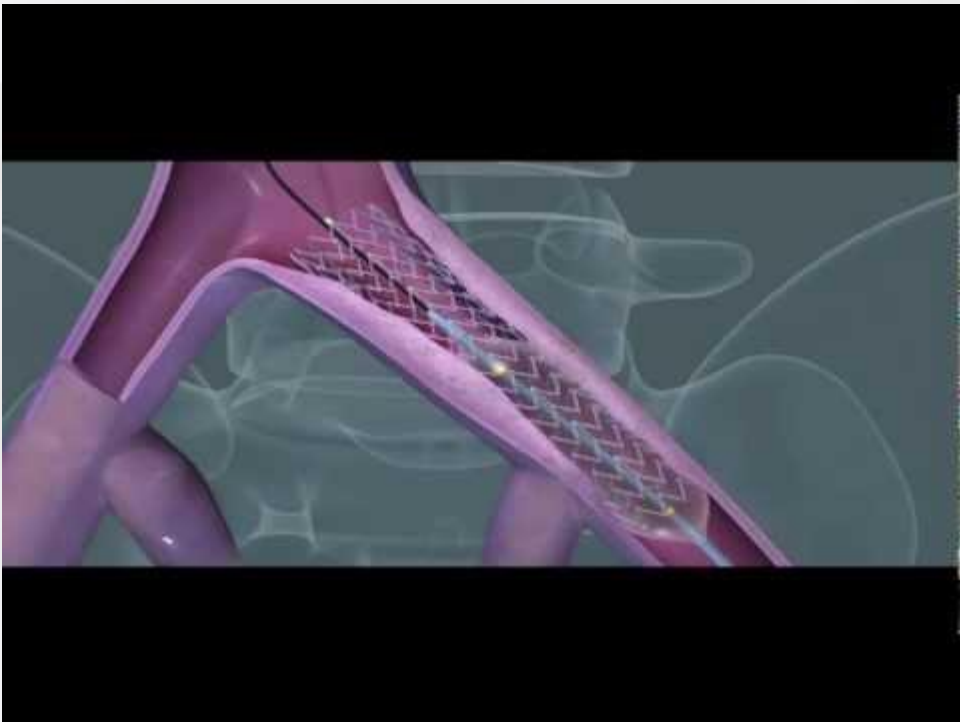
Chronic DVT Treatment



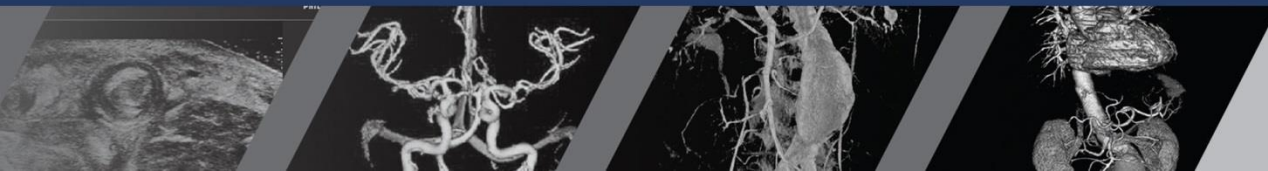
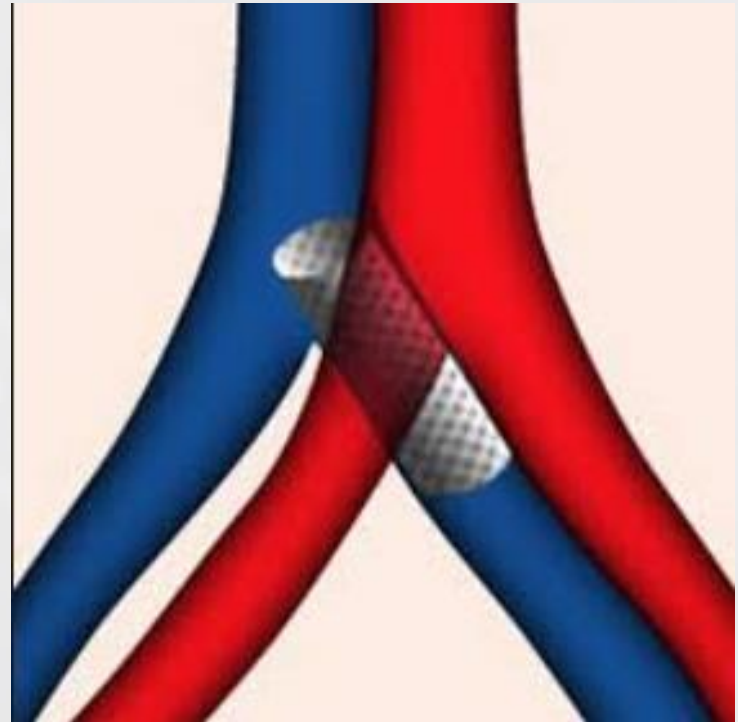


Venous Stenting

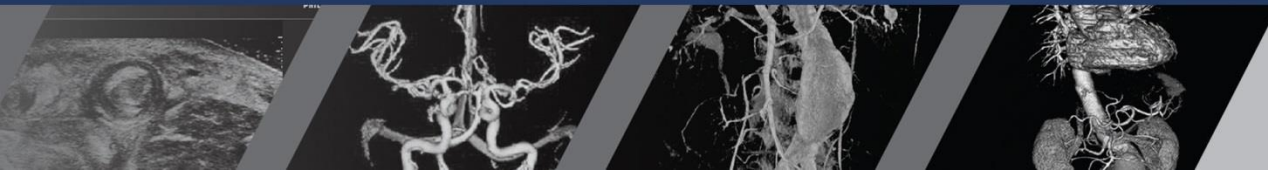
Chronic Obstructive

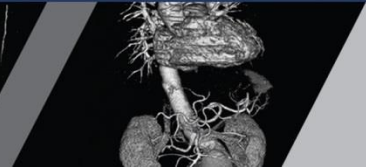
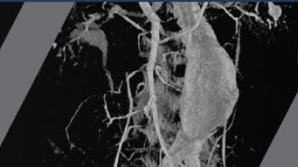
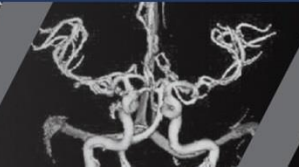


Compression



Venous Stenting





Conclusions

- Most patients have a multifactorial ulcer
- Comprehensive work-up and treatment is necessary in most patients.
- Different treatment methods are needed for each type or size of vein or artery involved
- More than one treatment method will be required for most patients

