

Are Venous Maps Standard of Care: What Should They Include

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Disclosures

None

Are Venous Maps Standard of Care?

YES

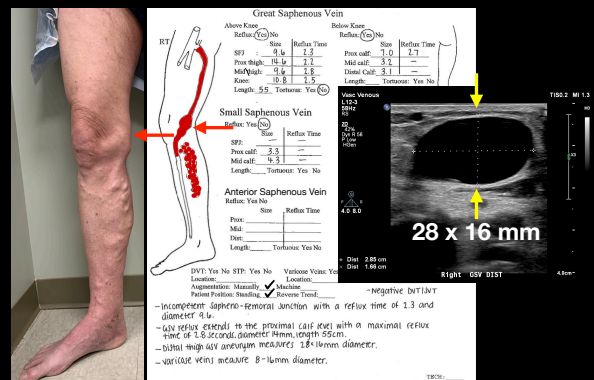
Vein Map Diagram

- Vein maps **should be used in all superficial venous examinations**
- Vein map is an effective **communication tool** between RVT, physician and patient
- Goal: **document** normal & abnormal anatomical variants
- Vein map diagram is the **tool** that helps us **build** the treatment plan

What Should Your Map Include?

- Document: deep venous system for patency & obstruction
- Patient positioning: reverse Trendelenburg & standing
- Great & small saphenous veins
- Anterior saphenous vein
- Posterior accessory saphenous vein
- Non-saphenous reflux patterns
- Superficial tributary vein
- Vein diameter, reflux time & treatment length
- Manual distal calf augmentation or pneumatic cuff inflation/deflation
- Infrapopliteal connections
- Vein depth from skin surface
- Aneurysm
- Tortuosity
- Fibrosis
- Previously treated veins
- Perforators
- Aplasia or hypoplasia
- Duplication

“A Picture is Worth a Thousand Words”



59 YO male, post stripping 2000, symptomatic with recurrent varicose veins

Panoramic view Anterior Saphenous Vein, length 16

Depth

Great Saphenous Vein

Above Knee			Below Knee		
Reflex: Yes No	Size	Reflex Time	Reflex: Yes No	Size	Reflex Time
SFJ	10	5.4	Prox calf	3.7	-
Prox thigh	3.1	-	Mid calf	2.1	-
Mid thigh	3.5	-	Distal calf	1.3	-
Mid calf	4.2	-	Length	-	-
Length	16.0	-	Tortuous?	Yes No	-

Anterior Saphenous Vein

Reflex: Yes No	Size	Reflex Time
Prox:	1.6	5.7
Mid:	3.8	5.3
Dist:	-	-
Length:	16	-
Tortuous?	Yes No	-

Small Saphenous Vein

Reflex: Yes No	Size	Reflex Time
Prox calf:	2.7	-
Mid calf:	3.1	-
Length:	-	-
Tortuous?	Yes No	-

Perforator

Reflex: Yes No	Size	Reflex Time
Prox:	-	-
Mid:	-	-
Dist:	-	-
Length:	-	-
Tortuous?	Yes No	-

Other:

Reflex: Yes No	Size	Reflex Time
Prox:	-	-
Mid:	-	-
Dist:	-	-
Length:	-	-
Tortuous?	Yes No	-

ACLSERO:

DVT: Yes No STP: Yes No Varicose Veins: Yes No Anomalous: Yes No
 Location: Location: Location: Location:
 Augmentation: Manually Machine Reverse Trend: Reverse Trend: Reverse Trend: Reverse Trend:
 Patient Position: Standing Machine Reverse Trend: Reverse Trend: Reverse Trend: Reverse Trend:
 - Incompetent saphenofemoral junction diameter 10mm, reflux time 5.4 seconds
 - ASV maximal reflux time 5.3 seconds, vein diameter 11.6mm, length 16mm
 - Varicose veins measure 4.0-8.5mm diameter

58 YO female post stripping 2003 with recurrent symptoms

Saphenofemoral Junction

Neo Vascularity

Vein Remnant

Internal Varicosities

Great Saphenous Vein

Above Knee			Below Knee		
Reflex: Yes No	Size	Reflex Time	Reflex: Yes No	Size	Reflex Time
SFJ	10	5.4	Prox calf	3.7	-
Prox thigh	3.1	-	Mid calf	2.1	-
Mid thigh	3.5	-	Distal calf	1.3	-
Mid calf	4.2	-	Length	-	-
Length	16.0	-	Tortuous?	Yes No	-

Anterior Saphenous Vein

Reflex: Yes No	Size	Reflex Time
Prox:	1.6	5.7
Mid:	3.8	5.3
Dist:	-	-
Length:	16	-
Tortuous?	Yes No	-

Small Saphenous Vein

Reflex: Yes No	Size	Reflex Time
Prox calf:	2.7	-
Mid calf:	3.1	-
Length:	-	-
Tortuous?	Yes No	-

Perforator

Reflex: Yes No	Size	Reflex Time
Prox:	-	-
Mid:	-	-
Dist:	-	-
Length:	-	-
Tortuous?	Yes No	-

Other:

Reflex: Yes No	Size	Reflex Time
Prox:	-	-
Mid:	-	-
Dist:	-	-
Length:	-	-
Tortuous?	Yes No	-

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 Patient Position: Standing Machine Reverse Trend: Reverse Trend: Reverse Trend: Reverse Trend:
 - Incompetent saphenofemoral junction diameter 7.0mm, reflux time 3.4 seconds
 - Neo Vascularity is noted arising from the SFJ measuring 3-4mm
 - Incompetent vein remnant (tortuous) measures 6.2mm, reflux time 5.4 seconds, length 30cm, internal varicosities noted proximal calf measures 4-7mm

38 YO female, bartender with symptomatic varicose veins

GSV in the Saphenous Canal

GSV epifascial leaves the Saphenous Canal

Length 20

Great Saphenous Vein

Above Knee			Below Knee		
Reflex: Yes No	Size	Reflex Time	Reflex: Yes No	Size	Reflex Time
SFJ	10	5.4	Prox calf	3.7	-
Prox thigh	3.1	-	Mid calf	2.1	-
Mid thigh	3.5	-	Distal calf	1.3	-
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Length	16.0	-	Tortuous?	Yes No	-

Anterior Saphenous Vein

Reflex: Yes No	Size	Reflex Time
Prox:	1.6	5.7
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Dist:	-	-
Length:	16	-
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Small Saphenous Vein

Reflex: Yes No	Size	Reflex Time
Prox calf:	2.7	-
Mid calf:	3.1	-
Length:	-	-
Tortuous?	Yes No	-

Perforator

Reflex: Yes No	Size	Reflex Time
Prox:	-	-
Mid:	-	-
Dist:	-	-
Length:	-	-
Tortuous?	Yes No	-

Other:

Reflex: Yes No	Size	Reflex Time
Prox:	-	-
Mid:	-	-
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 Patient Position: Standing Machine Reverse Trend: Reverse Trend: Reverse Trend: Reverse Trend:
 - Incompetent saphenofemoral junction with ASV reflux extending to the mid thigh, maximal reflux time is 6.3 seconds, maximal vein diameter is 4.7mm and for a length of 17cm
 - GSV reflux is noted from the distal thigh to distal calf via reflux from the ASV + varicose veins, maximal reflux time is 5.6 seconds, maximal vein diameter is 11.6mm and for a length of 20cm
 - Varicose veins noted measuring 4-5mm

Anterior saphenous vein

Great Saphenous Vein

Above Knee			Below Knee		
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Tortuous?	Yes No	-

Perforator

Reflex: Yes No	Size	Reflex Time
Prox:	-	-
Mid:	-	-
Dist:	-	-
Length:	-	-
Tortuous?	Yes No	-

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Anterior saphenous vein

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 - Varicose veins noted measuring 4-5mm

Conclusion

- Vein maps should be completed at the end of all superficial vein examinations
- Vein map is an excellent communication tool
- Vein map documents normal & abnormal anatomical variants
- Vein map allows us to build the treatment plan

Thank You