



Diameters Of The Great Saphenous Vein In Phlebological Practice In France: Report Of The DIAGRAVES Study By The French Society of Phlebology

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Disclosures :

- Servier : Consulting
- Medtronic : Consulting
- Kreussler : Consulting




MAIN OBJECTIVE

To evaluate the distribution of the diameters of the GSV at mid-thigh level, in the daily practice of phlebology in France

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Great Saphenous Vein Diameters in Phlebological Practice in France: A Report of the DIAGRAVES Study by the French Society of Phlebology

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WHAT THIS PAPER ADDS

In routine phlebological practice, only a small minority of patients with venous symptoms and/or clinical signs of chronic venous disorders present with large diameter (> 6 mm) incompetent great saphenous veins (GSVs). More than half of the incompetent GSVs are small (< 6 mm). This knowledge should influence management strategies in daily practice, with a view to reducing the global cost of treating patients with chronic venous disorders.

<https://doi.org/10.1016/j.jvms.2018.09.011>






Inclusion Criteria :

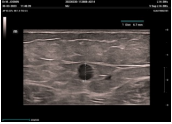
- ✓ C0s to C6 with at least one GSV not previously treated

Exclusion Criteria :

- previous treatment of both GSV
- post thrombotic syndrome;
- Pregnancy
- Not able to understand or given informed consent






Data collection



Demographics

- Ø of the GSV (mm), Patient standing; main measure at mid-thigh;
- Presence or not of a reflux (> 0.5 sec)
- Questionnaire of venous symptoms

LISTE D'ÉVALUATIONS

A-REFLUX

B-DIAMÈTRES

Éléments de l'évaluation

1-10

11-20

21-30

31-40

41-50

51-60

61-70

71-80

81-90

91-100

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Right Lower Limb	Symptoms	Left Lower Limb
0-1-2-3-4	Overall discomfort	0-1-2-3-4
0-1-2-3-4	Pain	0-1-2-3-4
0-1-2-3-4	Heaviness	0-1-2-3-4
0-1-2-3-4	Swelling	0-1-2-3-4
0-1-2-3-4	Itching	0-1-2-3-4
0-1-2-3-4	Cramps during the night	0-1-2-3-4
0-1-2-3-4	Feeling of warmth or burning	0-1-2-3-4
0-1-2-3-4	Tingling	0-1-2-3-4
0-1-2-3-4	Throbbing	0-1-2-3-4
0-1-2-3-4	Restless legs	0-1-2-3-4
0-1-2-3-4	Complaints increasing with heat and/or improving with cold	0-1-2-3-4

Venous symptoms: 0: none / 1: mild / 2: moderate / 3: severe / 4: extreme
Please circle the number corresponding to your answer

Figure 1. Symptoms questionnaire (to be completed by the patient).

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Duplex ultrasound was performed with the patient standing with a linear transducer (7.5-14 MHz).
The deep veins were examined

Diameter of the GSV was measured at two places :
- 3 cm below the saphenofemoral junction and at mid thigh. If there was a focal dilatation, measurement was performed just above or below it.
- Only the mid-thigh measurements were considered for analysis in the present study.

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- 35 investigators
- 1245 patients included (77% female) / 2450 limbs
- Mean age : 52 years (18-89);
- Mean BMI: 25

Figure 3. Distribution of C classes of the basic CEAP classification in left and right lower limbs (LL).

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Table 1. Symptom score of symptomatic lower limbs (LL) presenting with C0s-C6.

Symptoms	Left LL	Right LL
Overall discomfort	1.6 ± 1.1	1.6 ± 1.1
Pain	1.4 ± 1.2	1.3 ± 1.1
Heaviness	1.9 ± 1.1	1.9 ± 1.1
Swelling	1.6 ± 1.3	1.5 ± 1.3
Itching	0.7 ± 1.1	0.7 ± 1.1
Cramps during the night	1.1 ± 1.3	1.1 ± 1.3
Feeling of warmth or burning	0.9 ± 1.2	0.9 ± 1.2
Tingling	0.7 ± 1.0	0.7 ± 1.0
Throbbing	0.8 ± 1.1	0.8 ± 1.1
Restless legs	1.0 ± 1.3	1.0 ± 1.2
Complaints increasing with heat and/or improving with cold	1.8 ± 1.3	1.7 ± 1.4

0 = none; 1 = mild; 2 = moderate; 3 = severe; 4 = extreme.

Most frequent :
Heaviness
Swelling
Pain

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Results

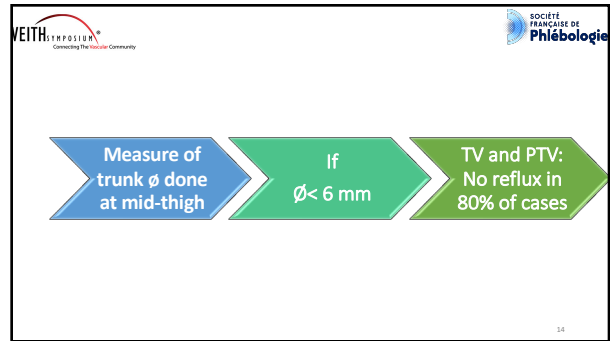
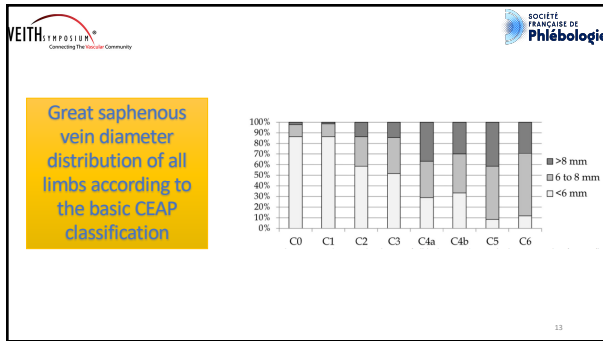
1245 patients included (C0s to C6)

- REFLUX of GSV: 40%, Mean ϕ 5.6 mm
- NO REFLUX of GSV: 60%, Mean ϕ 3.7 mm

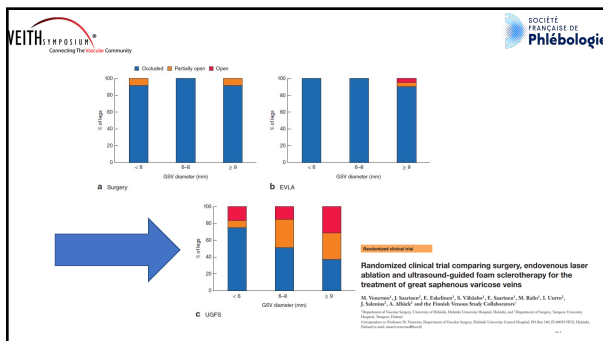
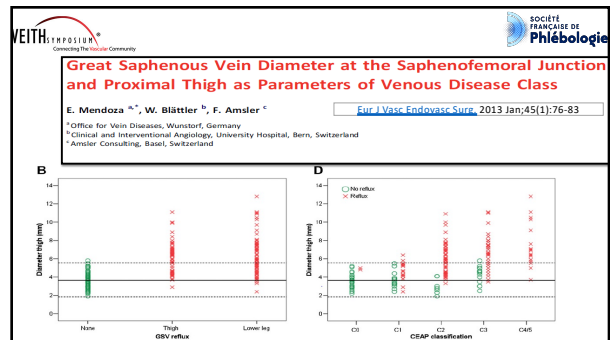
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Figure 5. Distribution of incompetent great saphenous vein diameters in 392 left and 364 right lower limbs (LL).



- Literature data**
- Navarro¹ : correlation between diameter and CEAP clinical class
 - Mendoza² : correlation between diameter and reflux, and diameter and CEAP class
 - Bradburry³ : correlation between reflux and symptoms
1. Navarro T. et al. Clinical on hemodynamic significance of the greater saphenous vein diameter in chronic insufficiency. Arch Surg 2002; 137:1233-1237
 2. Mendoza E. et al. Great saphenous vein diameter at the saphenofemoral junction and proximal thigh as parameters of venous disease class. Eur J Vasc Endovasc Surg 2013; 45 : 76-83
 3. Bradbury A, Evans CJ, Allan P, Lee AJ, Ruckley V, Fowkes FG. The relationship between lower limb symptoms and superficial and deep venous reflux on duplex ultrasonography: The Edinburgh Vein Study. J Vasc Surg 2000 ;32 :921-31



In conclusion

Good correlation between:

CEAP and diameter
 Symptoms and diameter
 Reflux and diameter

Majority of refluxing GSVs are less than 6 mm

VEITH EXPOSITION
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Thank you for your attention

SAVE THE DATE

83^{es} Journées
 de la SFP Paris
 27 & 28 nov. 2025
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