

A 3D anatomical illustration of a leg vein. The main vein is shown in a light purple color, with several smaller, twisted, and bulging veins branching off, representing varicose veins. The background is a dark green gradient. The text is overlaid on the left side of the image.

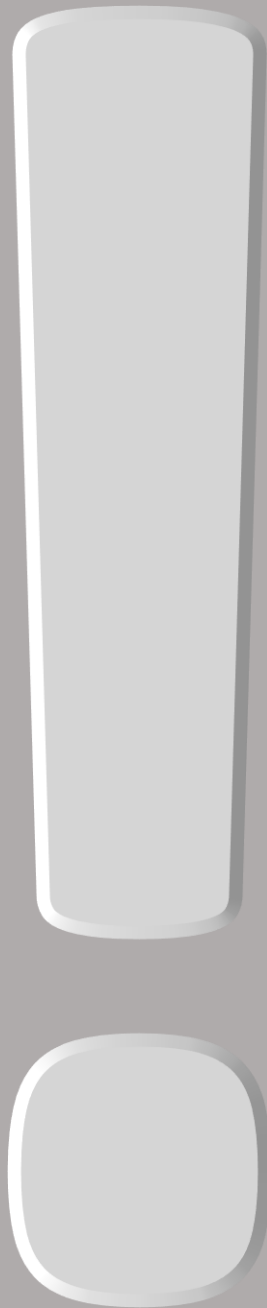
DUPLEXSONOGRAPHIE VOR VARIZENINTERVENTION

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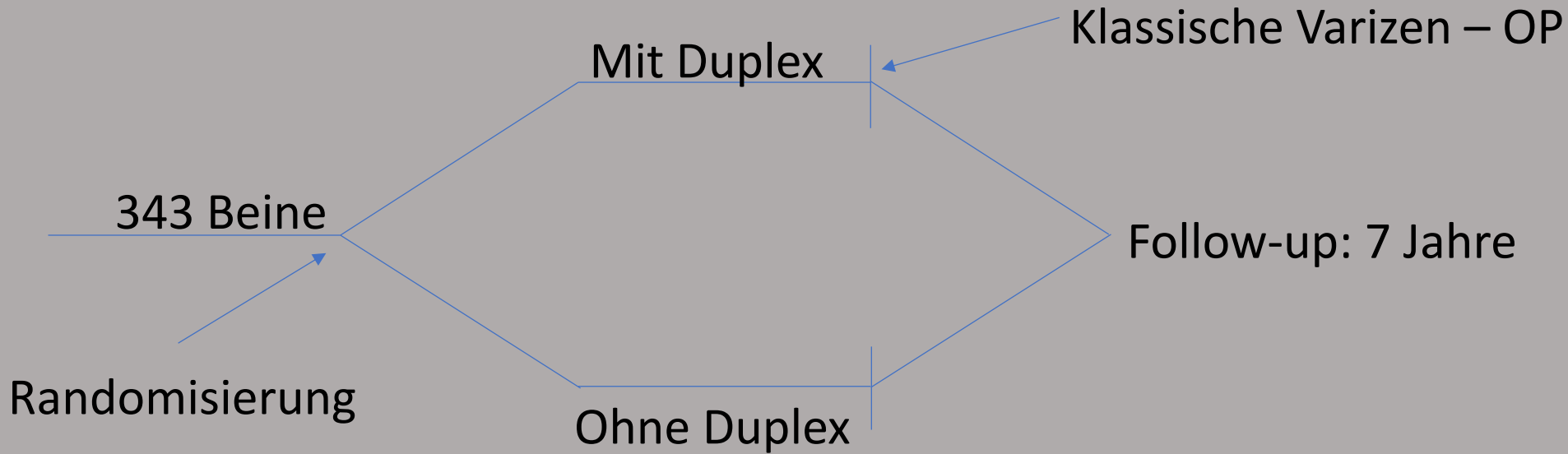


Wir wollen die Intervention gut planen – Duplex macht es möglich!



- Rezidive ↓
- Rekanalisation vermeiden
- Technisches Versagen/Re-Intervention ↓
- Post-interventionelle Komplikationen ↓

- Quality of life (QoL)
- Interventionsdauer ↓
- (Hospitalisationsdauer)
- (Kosten)



Mit Duplex

- ✓ Weniger Rezidive
- ✓ Weniger Re-Operationen
- Langzeitergebnis wird verbessert

Randomized Controlled Trial > Br J Surg. 2011 Aug;98(8):1112-6. doi: 10.1002/bjs.7579.

Epub 2011 May 27.

Late follow-up of a randomized trial of routine duplex imaging before varicose vein surgery

L Blomgren ¹, G Johansson, L Emanuelsson, A Dahlberg-Åkerman, P Thermaenius, D Bergqvist



Recommendation 11	Class	Level	References
Duplex ultrasound is recommended as the primary diagnostic test of choice in suspected chronic venous disease, to reliably evaluate the specific venous anatomy and to identify the source and pattern of reflux.	I	A	147, 151, 152
Recommendation 12			
In the presence of suspected abdominal and or pelvic venous pathology, duplex ultrasound is recommended before phlebography, computed tomography venography, and magnetic resonance venography examinations.		C	169
Recommendation 13	Class		
Duplex ultrasound is recommended for the assessment of recurrent varicose veins to identify the source of recurrence.	I		

Duplex ultrasound is recommended as the primary diagnostic test of choice in suspected chronic venous disease

Recommendation 19			
If there is an indication to treat supra-inguinal venous pathology, additional imaging (magnetic resonance venography and computed tomography venography) is recommended.	I	C	169, 194-198
Recommendation 20			
If both magnetic resonance venography and computed tomography venography are inadequate, intravascular ultrasound may be considered as an additional technique for identifying and treating ilio-caval obstruction.			

If there is an indication to treat supra-inguinal venous pathology, additional imaging is recommended (MR/CT-Venography)





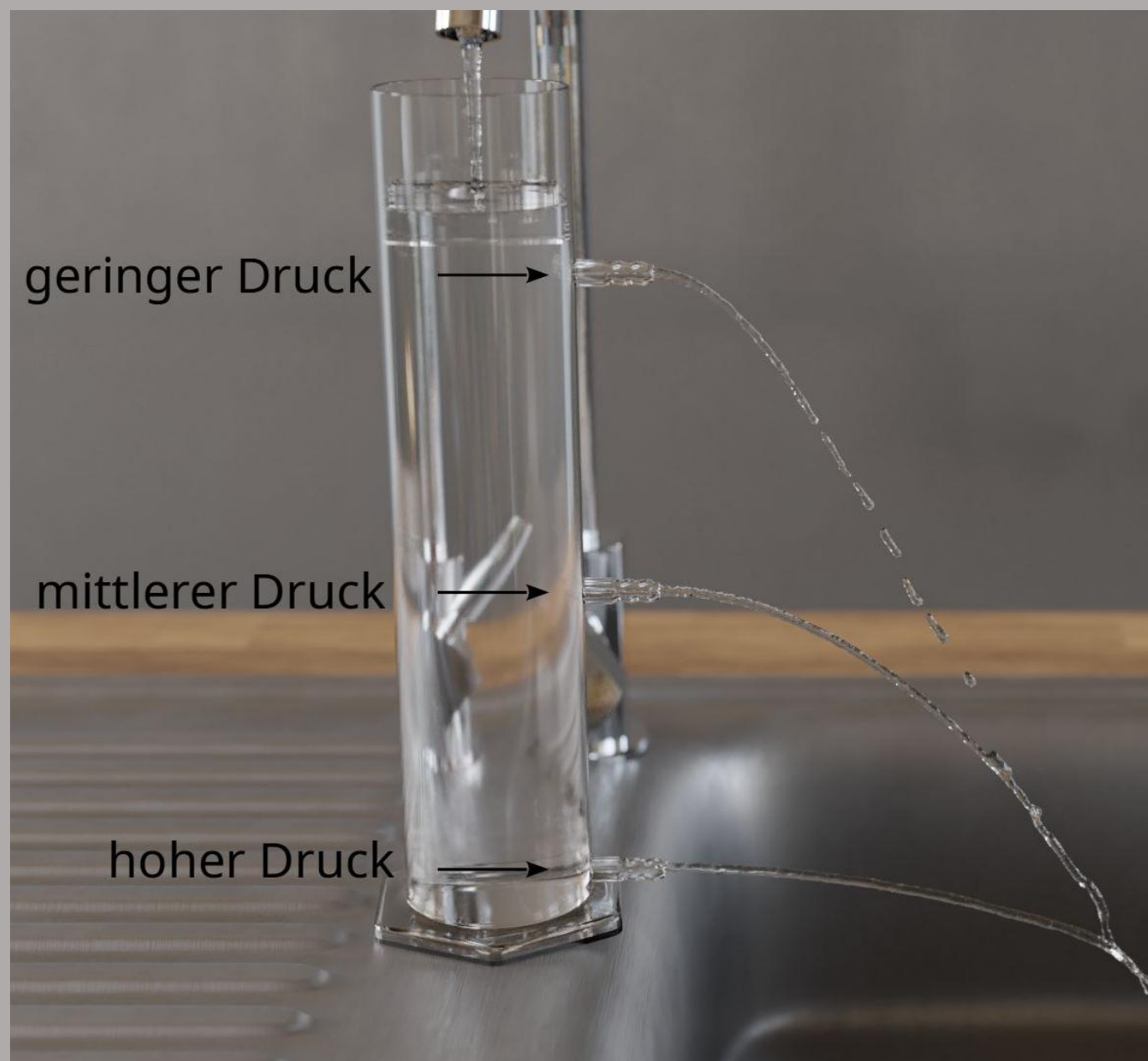
geringer Druck



mittlerer Druck



hoher Druck

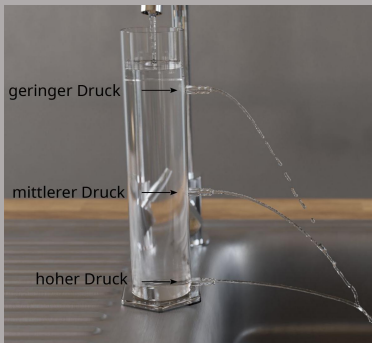




Aufrechte Position

→ venöser Druck \uparrow in den Beinvenen

- macht eine Untersuchung der Venen unter maximaler Belastung möglich



→ Venen maximal gefüllt

- Reflux deutlicher
- Durchmesser



Aufrechte Position

Duplex



Planung einer Intervention

Duplexsonografie:

- Anatomie
- Morphologie
- Flussverhältnisse

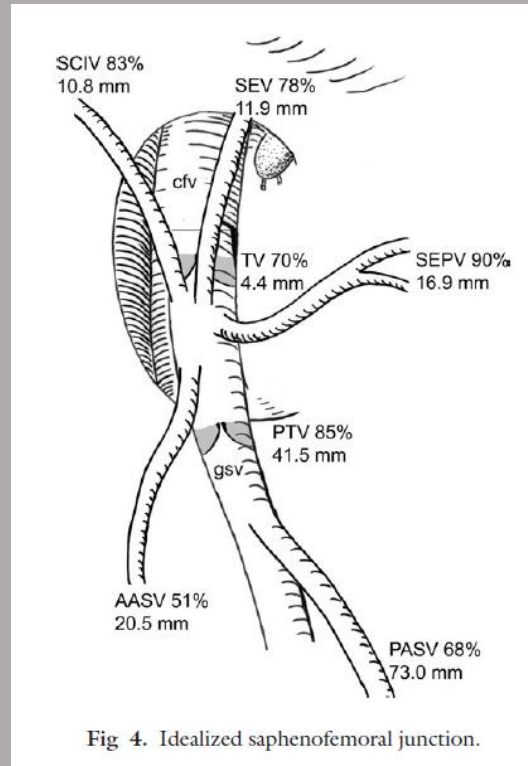


Geeignetes Therapieverfahren:

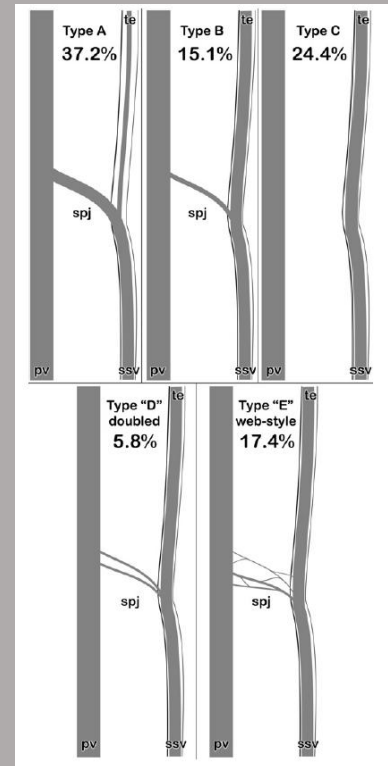
- Laser/Radiofrequenz
- Mechano-chemische Ablation
- Schaumsklerotherapie
- (VenaSeal)
- Klassische Chirurgie

Anatomie

Saphenofemoraler Übergang



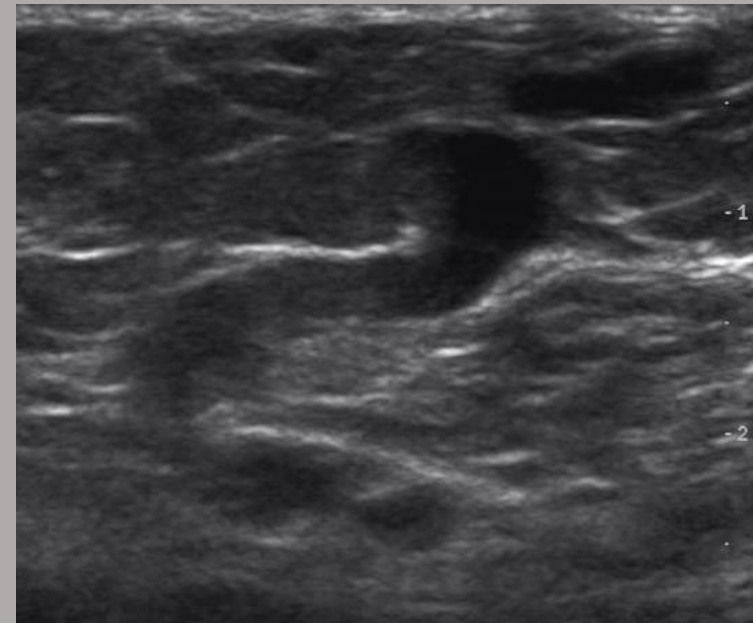
Saphenopoplitealer Übergang



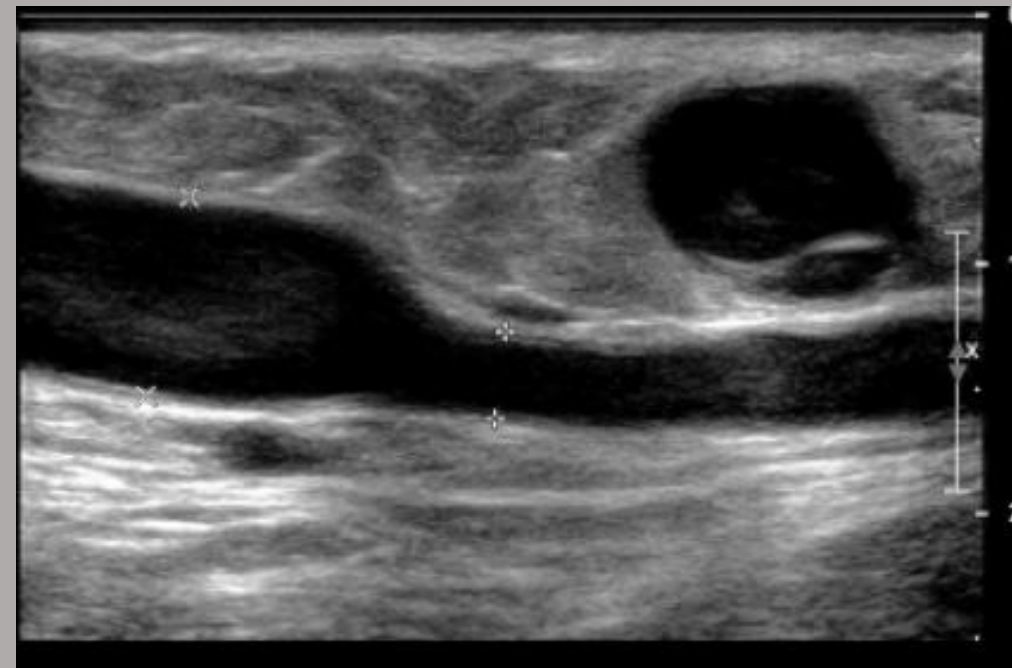
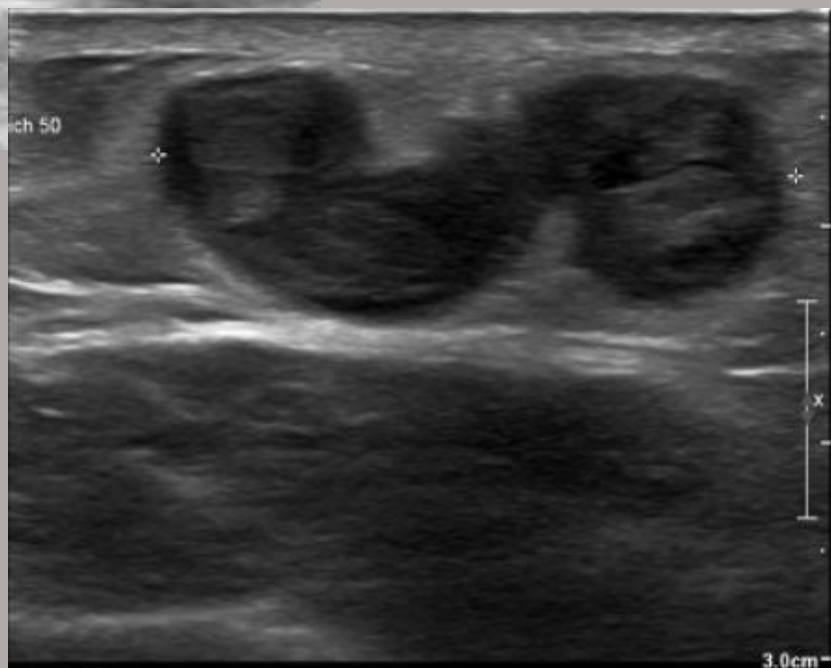
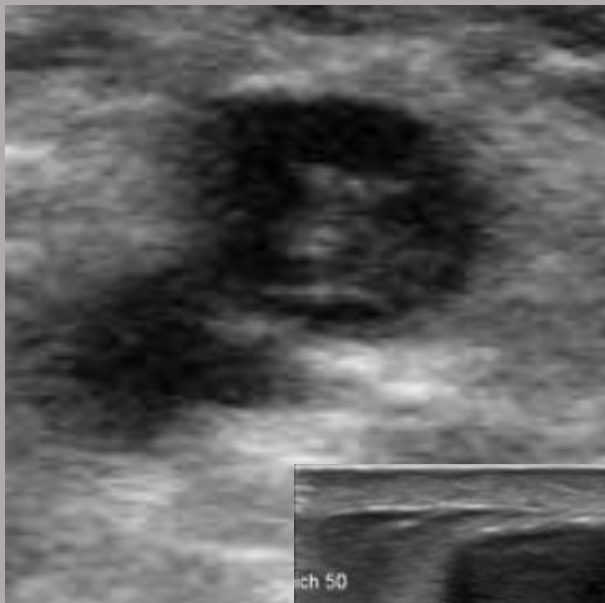
Wichtige Seitenäste

z.B. V. saphena
accessoria anterior

Perforansvenen



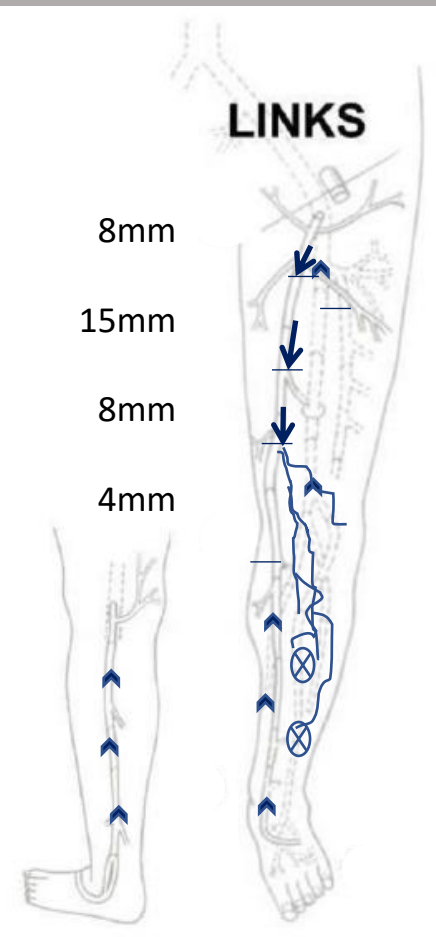
Morphologie



- ✓ Geradliniger Verlauf des Stammes
- ✓ 1 cm unter Oberfläche
- ✓ Keine postphlebitischen Veränderungen

✓ DIP 65pp

✓ Perforansvenen 25 cm und 35 cm pp



Stammveneninsuffizienz VSM Hach 2 mit Astvarikose im VSM Gebiet



THE THM





- ✓ Verlauf der varikösen Vene?
- ✓ Insuffizienzpunkte?
- ✓ Durchmesser: Zugangsstelle und im Verlauf
- ✓ Abstand von der Hautoberfläche?
- ✓ (partiell) okkludierte Venensegmente (Septen? thrombosiert? hypoplastisch)?

Vielen Dank für Ihre Aufmerksamkeit!

Fragen?

