

# The Anterior Saphenous Vein:

Position Statement of the American Vein & Lymphatic Society

Mark Meissner, MD Division of Vascular Surgery, University of Washington • Seattle, Washington

Edward M Boyle, MD Innova Vein Specialty Centers • Bend, Oregon

Rachel Drgastin BS Innova Vein Specialty Centers • Bend, Oregon

Linda Antonucci, RPhS, RVT, RDCS Linda Antonucci Veins, LLC • West Milford, New Jersey

## BACKGROUND

It has become increasingly evident to many venous specialists that there is a lack of clarity regarding the terminology of the Anterior Accessory Saphenous Vein (AASV).



Although use of the word "accessory" implies that the vein is a superficial tributary, its anatomic features, accepted treatment approaches, and clinical outcomes after treatment clearly support its role as a truncal vein, similar to the great and small saphenous veins, and warranting a change in terminology.

### TERMINOLOGY

It should be emphasized that terminology is defined as a set of specialized terms for a specific scientific field, such as venous and lymphatic medicine, while nomenclature is a set of terms defined according to strict anatomic standards and principles.<sup>1</sup> Although relying on anatomic principles, the distinction between truncal and tributary veins is a clinical rather than a purely anatomic issue. The superficial veins are localized to the subcutaneous tissue and within this tissue, the saphenous veins are surrounding by a membranous envelope (the saphenous fascia), which defines the saphenous compartment. Truncal veins can be considered to be those veins, which at least at their termination, are enclosed within the saphenous compartments, drain the extra-fascial tributaries, and are often the origin of tributary reflux. Tributary veins are smaller veins, not enclosed in a fascial envelope, that drain into truncal veins and contribute to the subcutaneous venous network.

Distinguishing between truncal and tributary veins is crucial in planning superficial venous interventions, as each play a distinct role in the development of venous symptoms and complications. Identifying the truncal vein responsible for a patient's symptoms helps determine the primary routes of venous, allowing a more targeted and effective treatment strategy. Superficial venous interventions primarily focus on resolving the underlying issues related to truncal with tributary treatment a secondary consideration individualized to optimize the overall truncal vein treatment strategy. Differentiating truncal from tributary veins is therefore essential in assessing the severity of venous disease and planning treatment.

While there is consensus that the great and small saphenous veins are anatomically truncal veins, there remains confusion surrounding the classification of the anterior accessory saphenous vein as either a truncal or a tributary vein. In large part this comes from the inclusion of the term "accessory." By definition, the accessory saphenous veins, their collateral tributaries, and communicating veins are superficial to the saphenous compartment. However, the anterior "accessory" saphenous vein is not superficial but has been found to lie in a defined interfascial compartment, deeply placed in the subcutaneous layer, and parallel to the GSV.<sup>2</sup>



Unfortunately, this lack of clarity has significant implications for patient treatment and long-term outcomes following intervention. For example, if the anterior accessory saphenous vein is mistakenly considered a tributary vein, the need for treatment could be overlooked, leading to the inadequate resolution of the symptoms that led the patient to seek treatment or denied for coverage, also resulting in the same undesirable outcomes for patients. Properly identifying the vein's role as a truncal vein is essential in developing a targeted and effective long term intervention plan. Precise diagnosis and treatment planning ensure that interventions are appropriately targeted and resources are efficiently utilized. Misclassification may result in unnecessary utilization of resources and may divert attention from the actual source of reflux.



### NAME RECOMMENDATION

To address this confusion an international, multi-societal panel of experts was convened by the American Vein and Lymphatic Society (AVLS), the Union International of Phlebology (UIP), and the American Venous Forum (AVF). The group reviewed the existing anatomic and clinical literature pertaining to the term "anterior accessory saphenous vein" and considered the need for alternative terminology. The panel examined the historical context, variations in terminologies across different anatomical references, and the clinical implications of using the term "anterior accessory saphenous vein. Based on the insights gathered from the literature review and extensive discussions, the panel recommends changing the terminology such that the "anterior accessory saphenous vein" (AASV) now be designated the "anterior saphenous vein (ASV)". 3 This recommendation is fully supported by the AVLS.

# SUMMARY OF RECOMMENDATIONS

The confusion surrounding the terminology of the anterior accessory saphenous vein has relevant consequences for patient care and resource utilization. Accurate designation of its status as a truncal vein is critical in selecting the most appropriate treatment options, improving intervention planning, and optimizing long-term patient outcomes in the management of venous disease. Indeed, patients with ASV reflux present with similar signs and symptoms as those with saphenous reflux.<sup>4</sup> The decision to treat a refluxing ASV should be a clinical decision based on the assessment on the ASV's contribution to patient's signs and symptoms. There are unique clinical considerations such as whether both the GSV and ASV should be concomitantly treated, if a normal ASV should be treated when treating a refluxing GSV, and when and how to treat the associated tributary varicosities.<sup>5</sup> Being aware of the anatomic, clinical and technical considerations allows development of an appropriate treatment plan that optimizes long-term outcomes in patients with ASV reflux. Changing the name of the vein from Anterior Accessory Saphenous Vein (ASV) to Anterior Saphenous Vein (ASV) more



accurately reflects its anatomic features, clinical importance, and appropriate treatment considerations.

### ACKNOWLEDGEMENTS

This Position Statement has been reviewed and approved by the Guidelines Committee of the

American Vein and Lymphatic Society and was also recently published in the journals *Phlebology* and

the Journal of Vascular Surgery Venous and Lymphatic Disorders.

#### REFERENCES

- 1. Kachlik D, Pechacek V, Baca V, Musil V. The superficial venous system of the lower extremity: new nomenclature. *Phlebology*. 2010;25(3):113-23.
- 2. Caggiati A ,Labropoulos N, Boyle E, Drgastin R, Gasparis A, Doganci S, Meissner M. The Anterior Saphenous Vein. Part 2. Anatomic considerations in normal and refluxing patients. *Phlebology.* 2024;39(5):313-324. doi:10.1177/02683555231223055 and *J Vasc Surg Venous Lymphat Disord.* 2024; 12(3):101855. <u>doi.org/10.1016/j.jvsv.2024.101855</u>
- Meissner M, Boyle E, Labropoulos N, Caggiati A, Drgastin R, Doganci S, Gasparis A. The Anterior Saphenous Vein. Part 1. A position statement endorsed by the American Vein and Lymphatic Society (AVLS), the American Venous Forum (AVF) and the International Union of Phlebology (UIP). *Phlebology*. 2024;39(5):310-312 doi: 10.1177/02683555231224529 and *J Vasc Surg Venous Lymphat Disord*. 2024;12(3):101721. doi.org/10.1016/j.jvsv.2023.101721
- Drgastin R, Boyle E, Labropoulos N, Caggiati A, Gasparis A, Doganci S, Meissner M. The Anterior Saphenous Vein. Part 3. Systematic review of the literature and payor coverage policies. *Phlebology*. 2024;39(5) 325–332. doi:10.1177/02683555231223281 and *J Vasc Surg Venous Lymphat Disord* 2024;12(3):101856 <u>doi.org/10.1016/j.jvsv.2024.101856</u>
- Boyle E, Drgastin R, Labropoulos N, Caggiati A, Gasparis A, Doganci S, Meissner M. The Anterior Saphenous Vein. Part 4. Clinical and technical considerations in treatment. *Phlebology*. 2024;39(5):333-341. doi:10.1177/02683555231223063 and *J Vasc Surg Venous Lymphat Disord*. 2024;12(3):101857 doi.org/10.1016/j.jvsv.2024.101857
- 6. Illustrations: Melissa Schumacher



#### **FIGURE LEGENDS**

Figure 1. The two proximal saphenous veins. The anterior saphenous vein commonly arises from the proximal portion of the great saphenous vein, either between the terminal and subterminal valve, or more distally on the thigh. [Illustration courtesy of Inside Ultrasound].

Figure 2. The saphenous compartment contains both the great saphenous vein (GSV) and anterior saphenous vein (ASV). The compartment is demarcated anteriorly by the saphenous fascia (SF), lying under the subcutaneous tissues and dermis (D). The posterior margin is composed of the muscular fascia (MF) [Illustrator: Melissa Schumacher].