

Venous Nomenclature

*Terminologia Anatomica*¹ (TA) provides the international standard on human anatomical terminology. As venous ultrasound developed and was increasingly utilized, the standard venous anatomic terms that had been in use appeared to be insufficient. Clinicians began learning more about venous physiology and pathophysiology and along the way began expanding venous terminology. Unfortunately, names were introduced which were not part of the *Terminologia Anatomica* and in some cases led to confusion as nonuniform nomenclature appeared in the clinical literature. It became clear that knowledge of venous anatomical terminology was essential in communicating and sharing findings throughout the medical community.

During the World Congress of the International Union of Phlebology (IUP) held in Rome in 2001, a consensus document was drafted with input from the IUP, the International Federation of Associations of Anatomists (IFAA) and the Federative International Committee on Anatomical Terminology (FICAT). Additional input was obtained from venous experts from multiple countries. This document was published in the *Journal of Vascular Surgery* in 2002². Following the initial publication, the committee developed a refinement of the nomenclature publishing an additional paper in the *Journal of Vascular Surgery* in 2005³. These papers resulted in the change in the name of some veins, the naming of previously unnamed veins and the discontinuance of the use of most eponyms. These papers also went on to clarify the compartments of the limb and which veins are present within those compartments.

Both papers go into extensive detail about the veins of the leg. Clinically one of the most significant changes in the terminology for the deep system was to change the name of superficial femoral vein to simply the femoral vein. The name “superficial femoral vein” was never the name designated by the TA and this vein was not a superficial structure. While the vein that courses from the popliteal vein terminating into the common femoral vein should be referred to as the femoral vein, no change was made in the companion arteries. The name superficial femoral artery is still the accepted standard for the vessel which courses from the common femoral artery to the popliteal artery. The Table 1 is an abbreviated summary of the nomenclature for the deep venous system.

Table 1. Deep Venous Nomenclature

THIGH	Common Femoral Vein Femoral Vein Deep Femoral Vein Medial Circumflex Femoral Vein Lateral Circumflex Femoral Vein Deep Femoral Communicating Veins
KNEE & LEG	Popliteal Vein Genicular Venous Plexus Sural Veins <ul style="list-style-type: none"> • Soleal Veins • Gastrocnemius Veins <ul style="list-style-type: none"> ○ Medial Gastrocnemius Veins ○ Lateral Gastrocnemius Veins Anterior Tibial Veins Posterior Tibial Veins Fibular or Peroneal Veins

In the past multiple terms were used to describe the superficial veins in the leg. The great saphenous vein is the appropriate name to be used and not greater or long saphenous vein. The small saphenous vein is the appropriate name to be used and not the lesser or short saphenous vein. An extension above the popliteal fossa of the small saphenous vein is often observed. This vein has been called the femoropopliteal vein in the past. If this cranial extension of the small saphenous vein communicates with the great saphenous vein via the posterior thigh circumflex vein it was often called the vein of Giacomini. The current accepted terminology for this vein is the cranial extension of the small saphenous vein. Table 2 is an abbreviated summary of the nomenclature which should be used for the superficial venous system.

Table 2. Superficial venous Nomenclature

Great Saphenous Vein Anterior Accessory of the Great Saphenous Vein Posterior Accessory of the Great Saphenous Vein Anterior Thigh Circumflex Vein Posterior Thigh Circumflex Vein Small Saphenous Vein Cranial Extension of the Small Saphenous Vein Intersaphenous Veins Lateral Venous System

Numerous perforating veins are present, and their location, size, and arrangements are quite variable. Clinically, many referred to the perforating veins by eponyms although they may have often been incorrect from a historical point of view. Descriptive terms using the location of these veins is now preferred. Nomenclature such as anterior ankle, lateral ankle, paratibial, anterior leg, lateral leg or

posterior leg perforating veins are just a portion of the currently accepted names for the perforating veins.

The nomenclature papers published by the international interdisciplinary consensus committee are thorough descriptive documents for lower extremity and pelvic veins. For a complete list of the nomenclature set forth by this group, one should refer to the Journal of Vascular Surgery references at the end of this paper. For clinicians with an interest in venous disease, ultrasound evaluation of veins and venous treatment, it is important to consistently use the internationally accepted anatomical nomenclature. Confusion can be avoided, and relevant information can be easily understood as it is shared.

References

1. Terminologia Anatomica: International Anatomical Terminology. New York: Thieme Medical Publishers. 1998.
2. Caggiati A, Bergan JJ, Gloviczki P, Janter G, Wendell-Smith CP, Partsch H. Nomenclature of the veins of the lower limbs: An International interdisciplinary consensus statement. *J Vasc Surg* 2002; 36:416-22.
3. Caggiati A, Bergan JJ, Gloviczki P, Eklof B, Allegra C, Partsch H. Nomenclature of the veins of the lower limb: Extensions, refinements and clinical application. *J Vasc Surg* 2005; 416:719-24.