

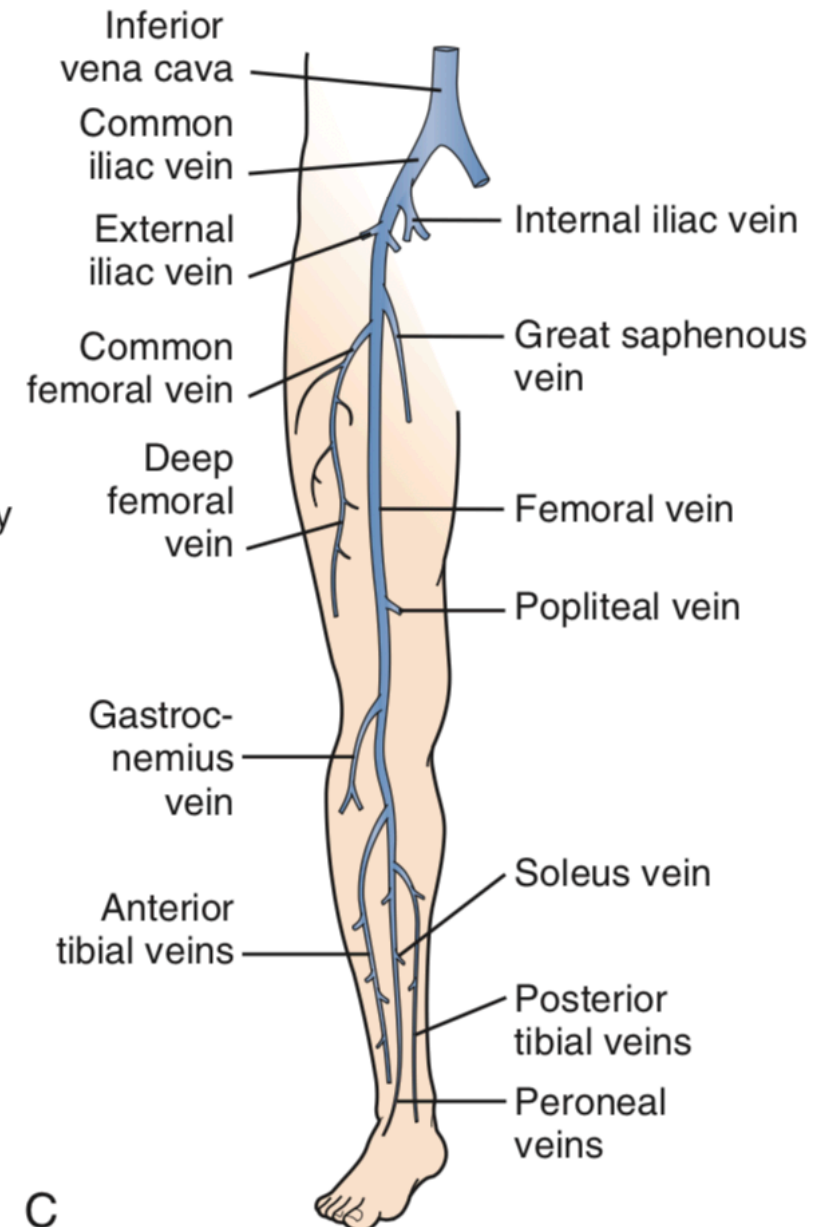
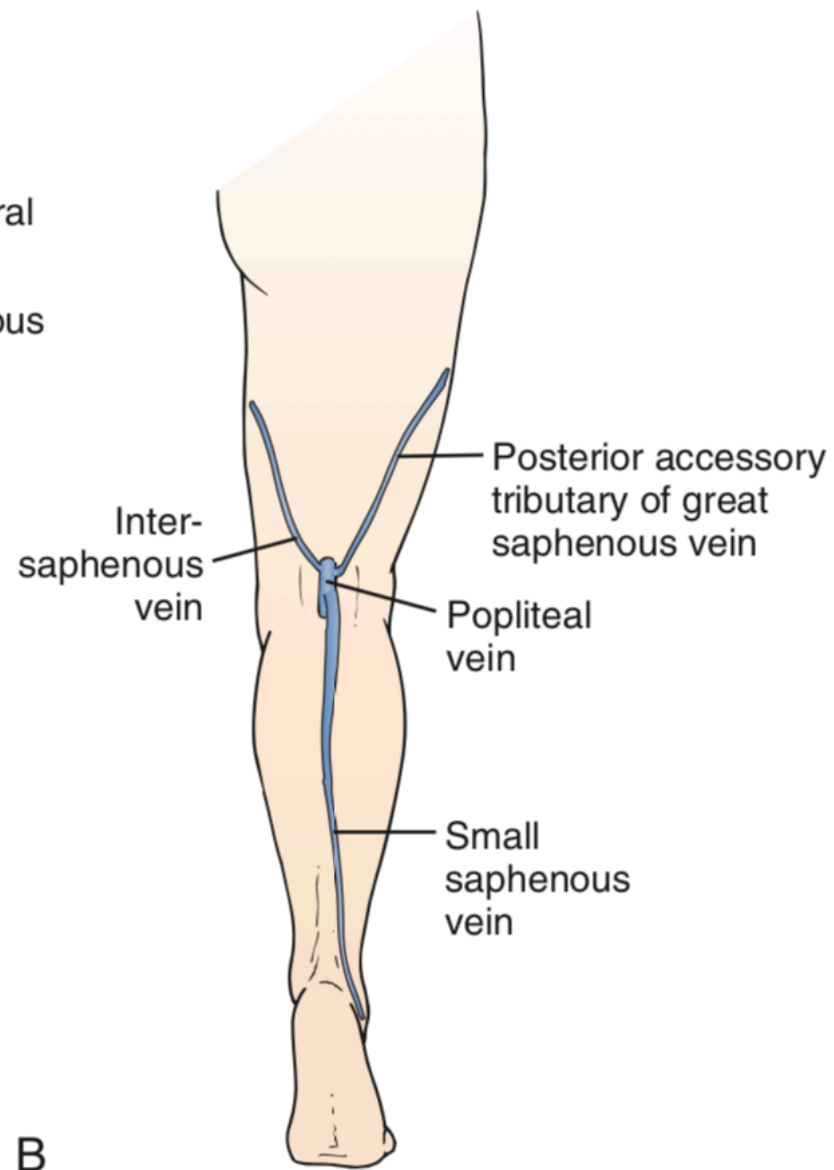
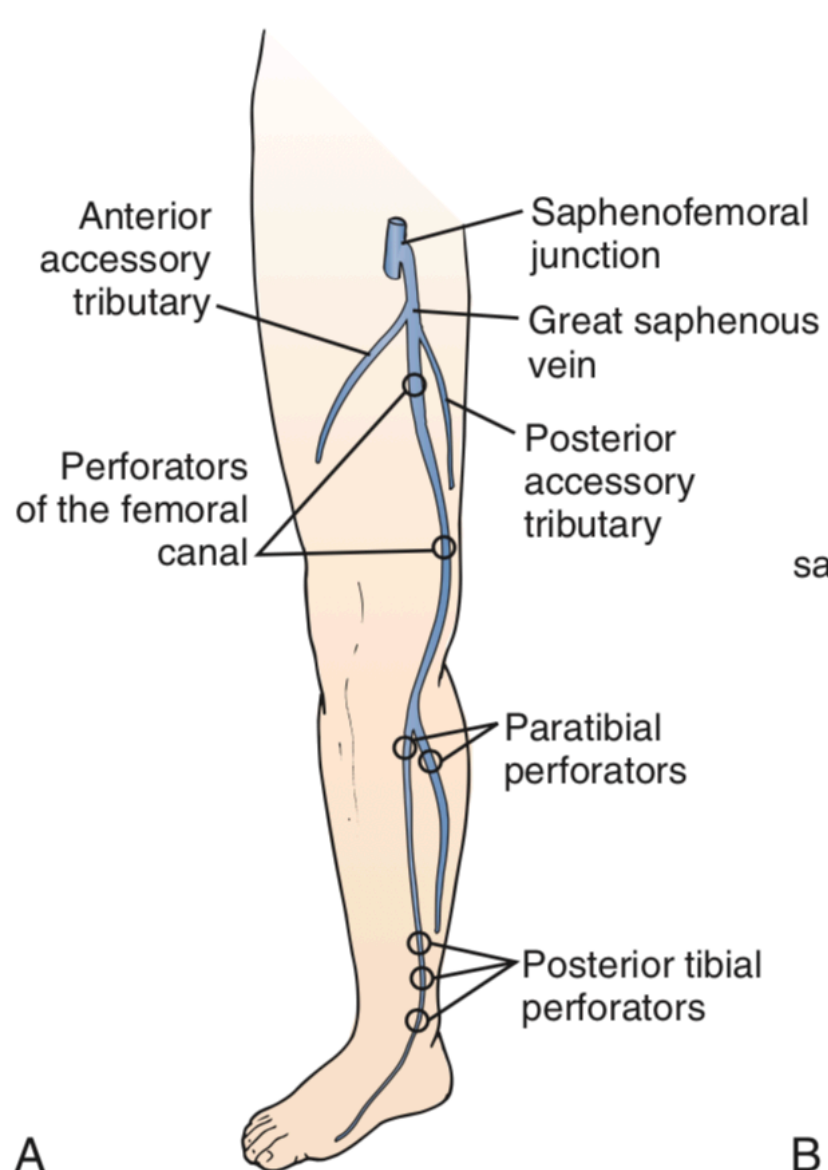


VENOUS ANATOMY AND PHYSIOLOGY



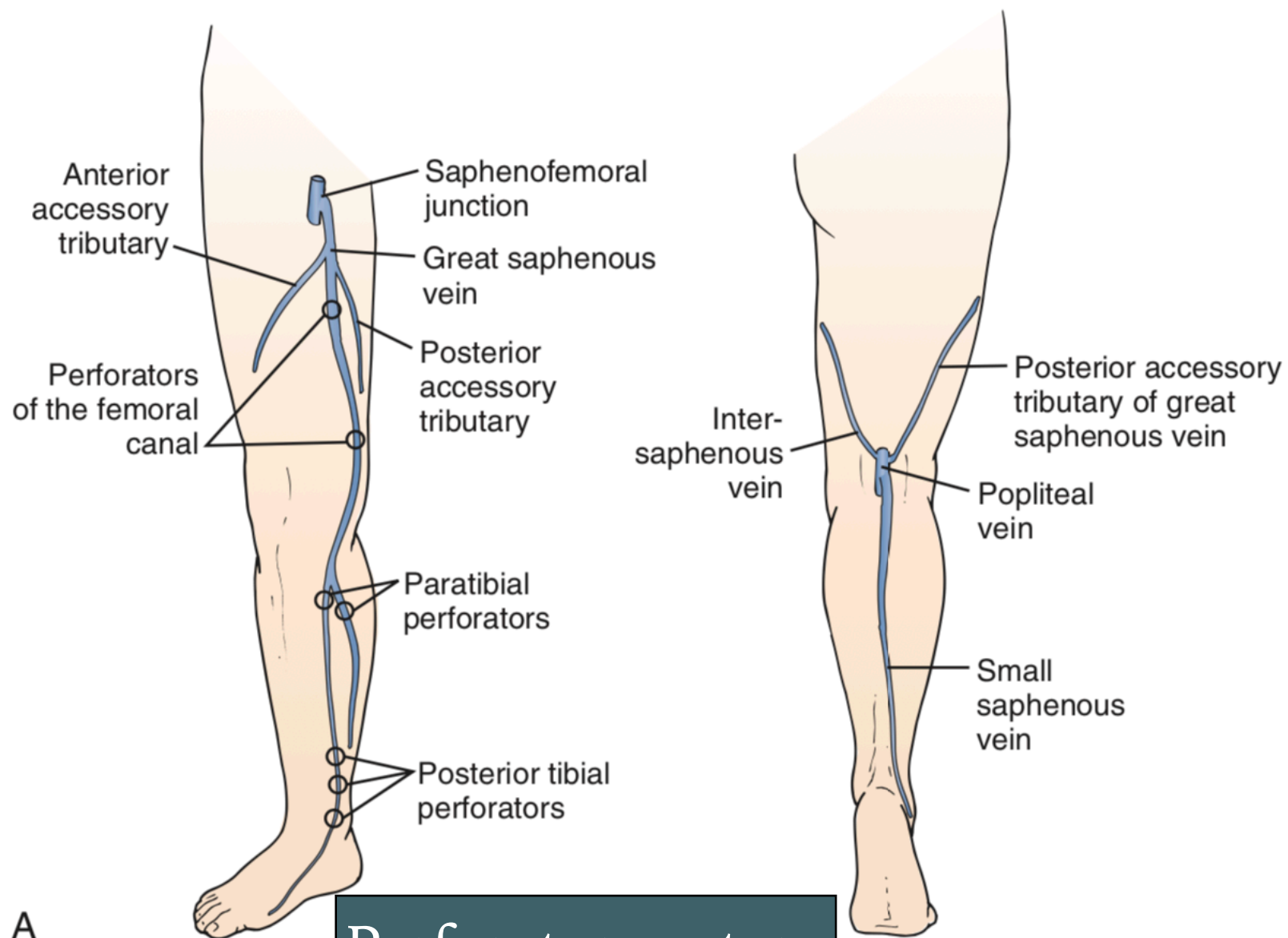
Saranat Orrapin , MD
Vascular surgery , Department of Surgery
Faculty of Medicine , Chiang Mai University

VENOUS ANATOMY



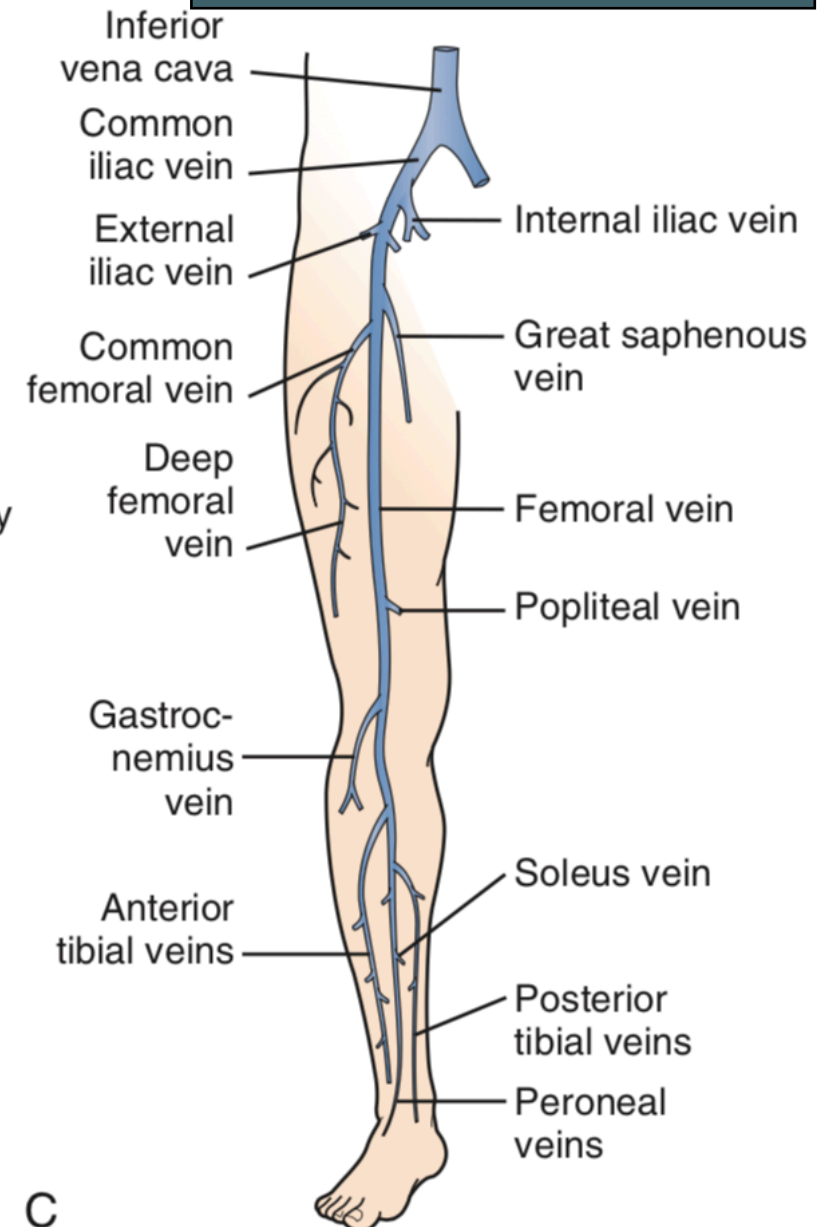
Leg vein system

Superficial vein system

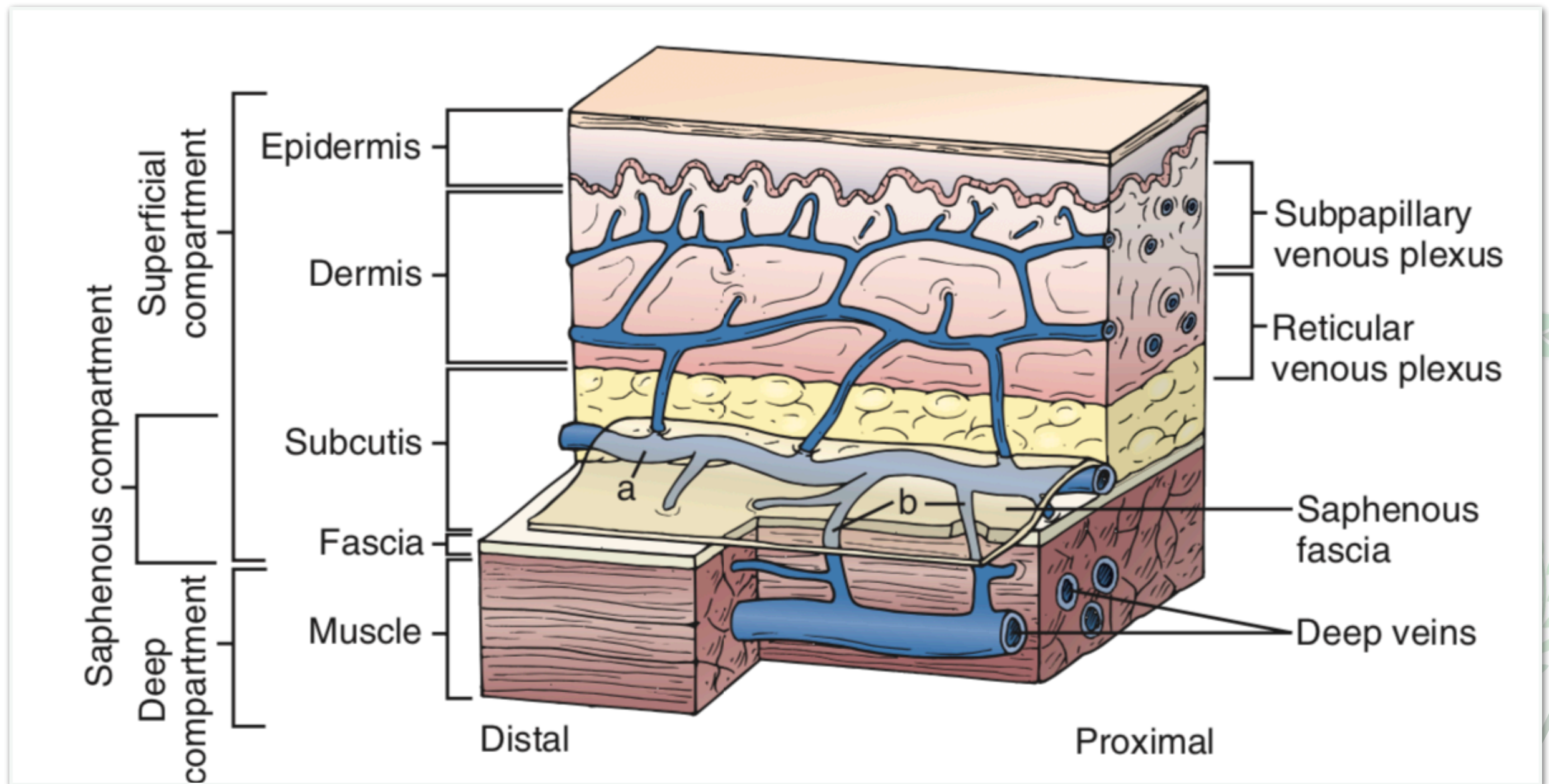


Perforator system

Deep vein system

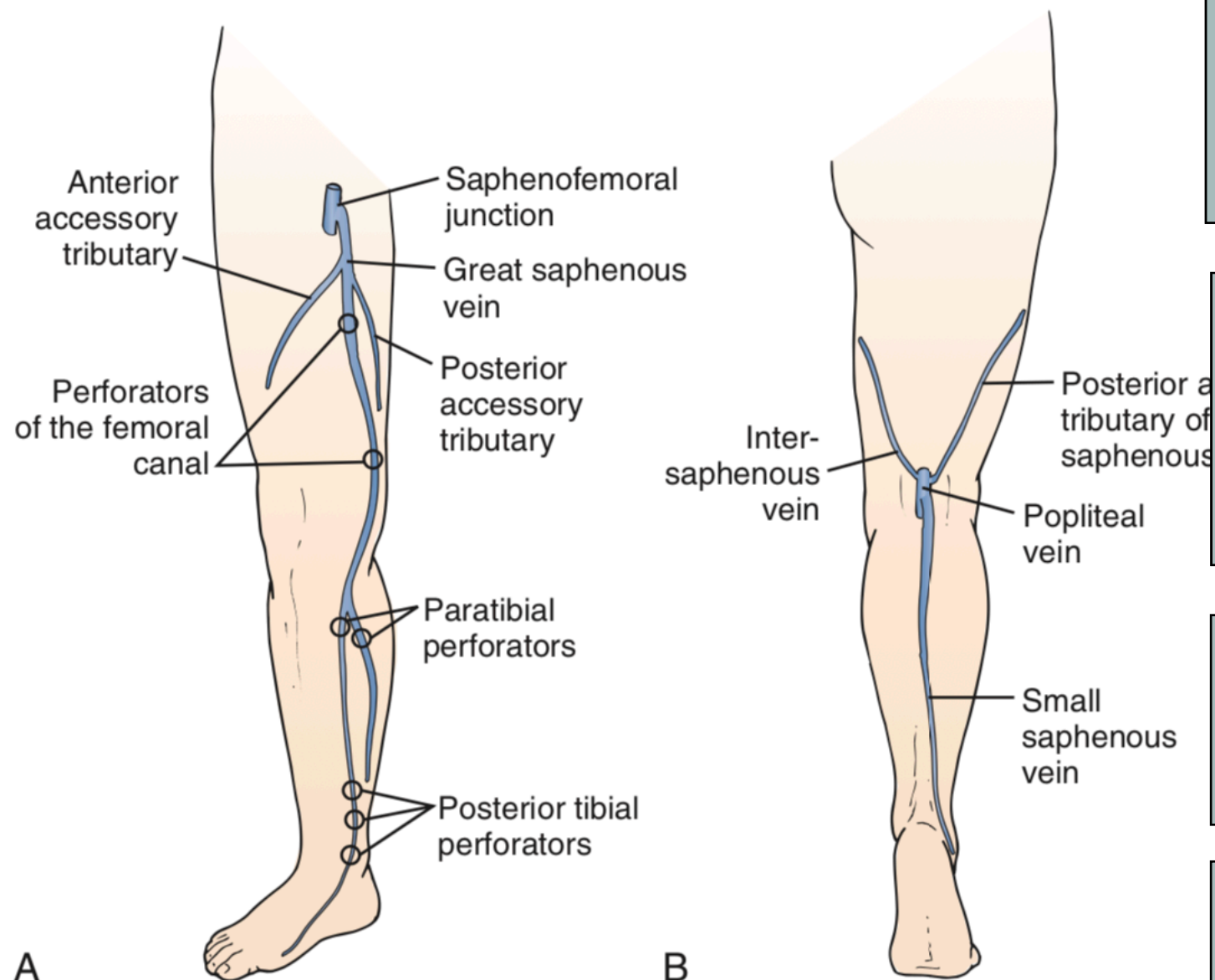


VENOUS ANATOMY



Leg vein system

Superficial vein system



Great saphenous vein (GSV)

- Greater saphenous vein (GSV)
- Long saphenous vein (LSV)

Small saphenous vein (SSV)

- Lesser saphenous vein (LSV)
- Short saphenous vein (SV)

Inter-saphenous vein

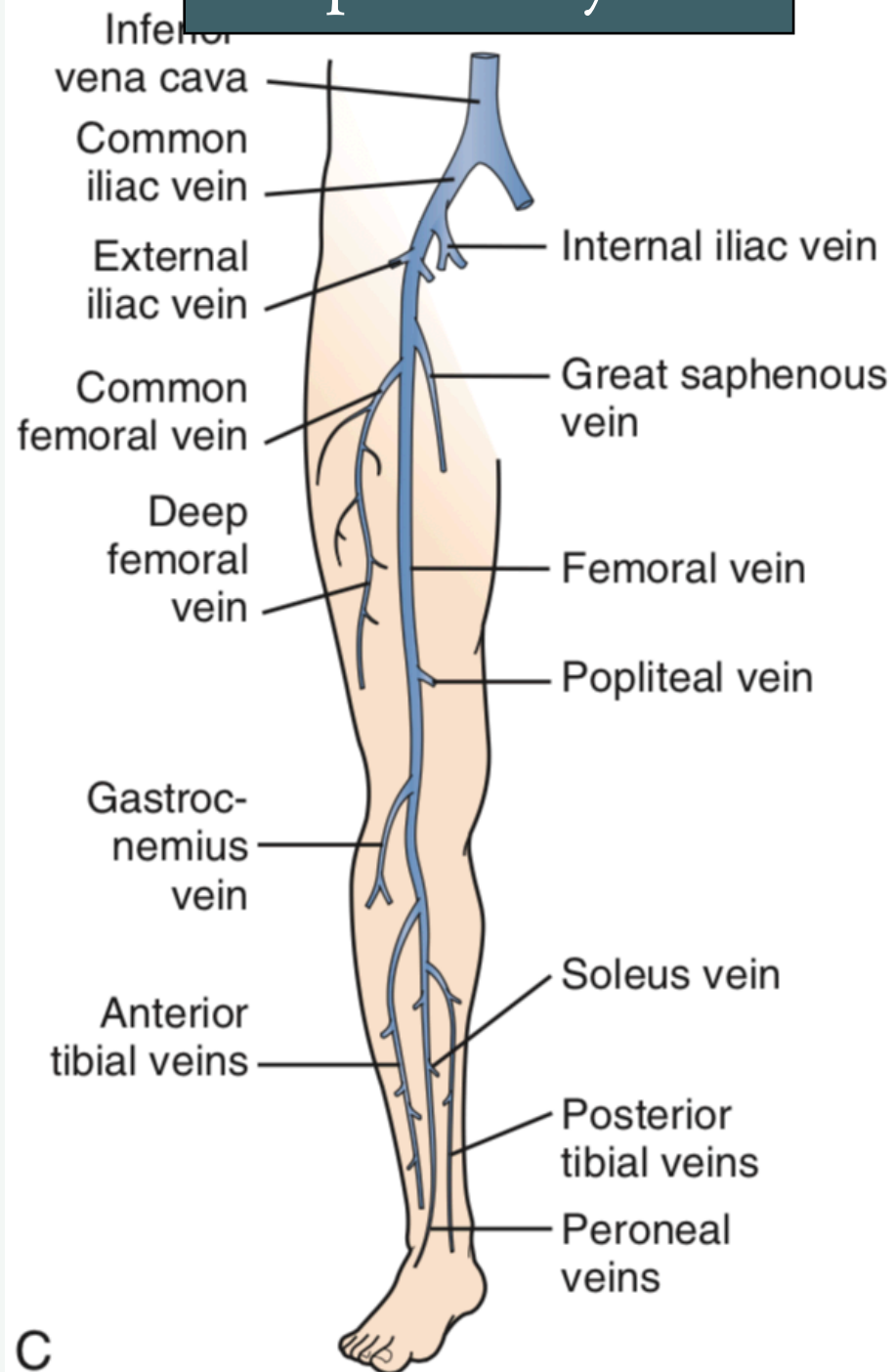
- Giacomini vein

Accessory saphenous vein

- Anterior (Lateral side)
- Posterior (Medial side)

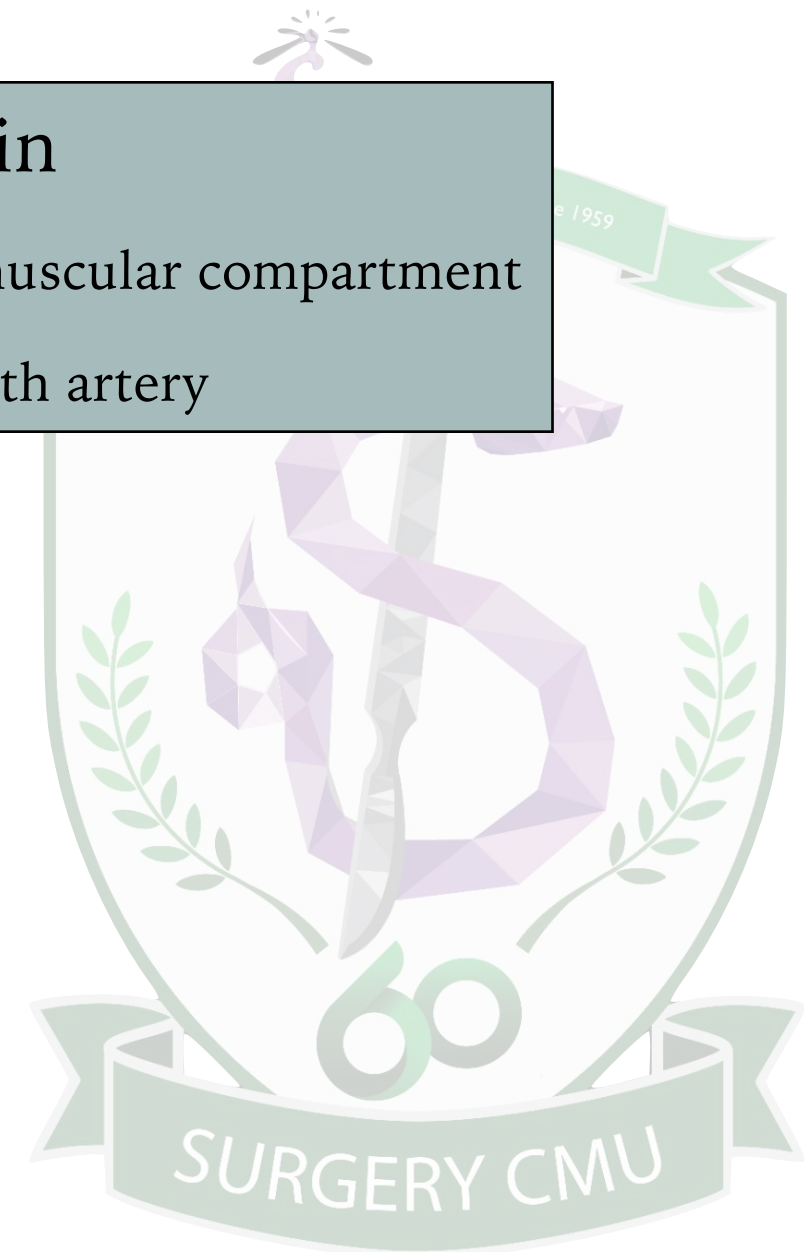
Leg vein system

Deep vein system



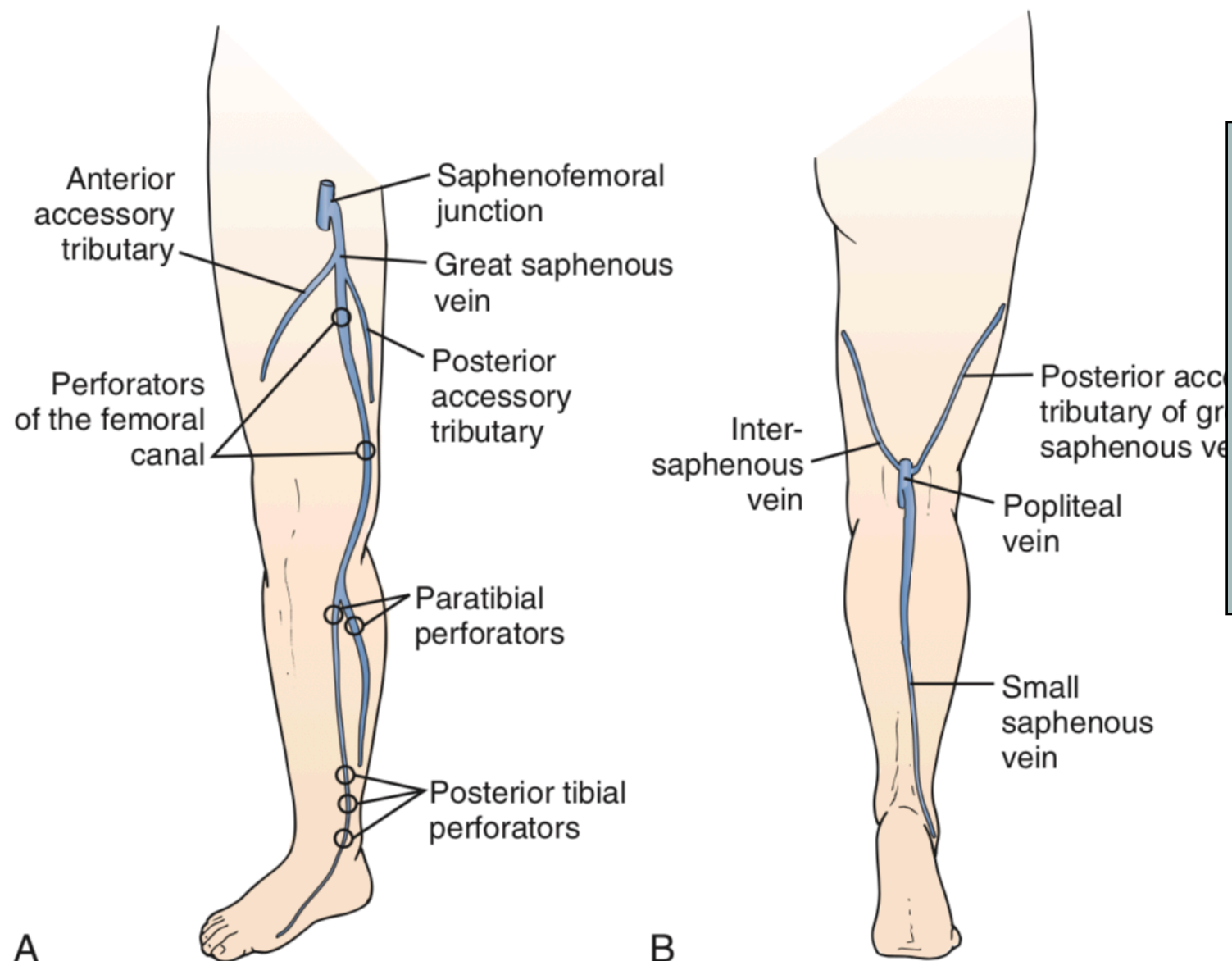
Deep vein

- Run in muscular compartment
- Along with artery



Leg vein system

Perforator vein system



Perforator vein

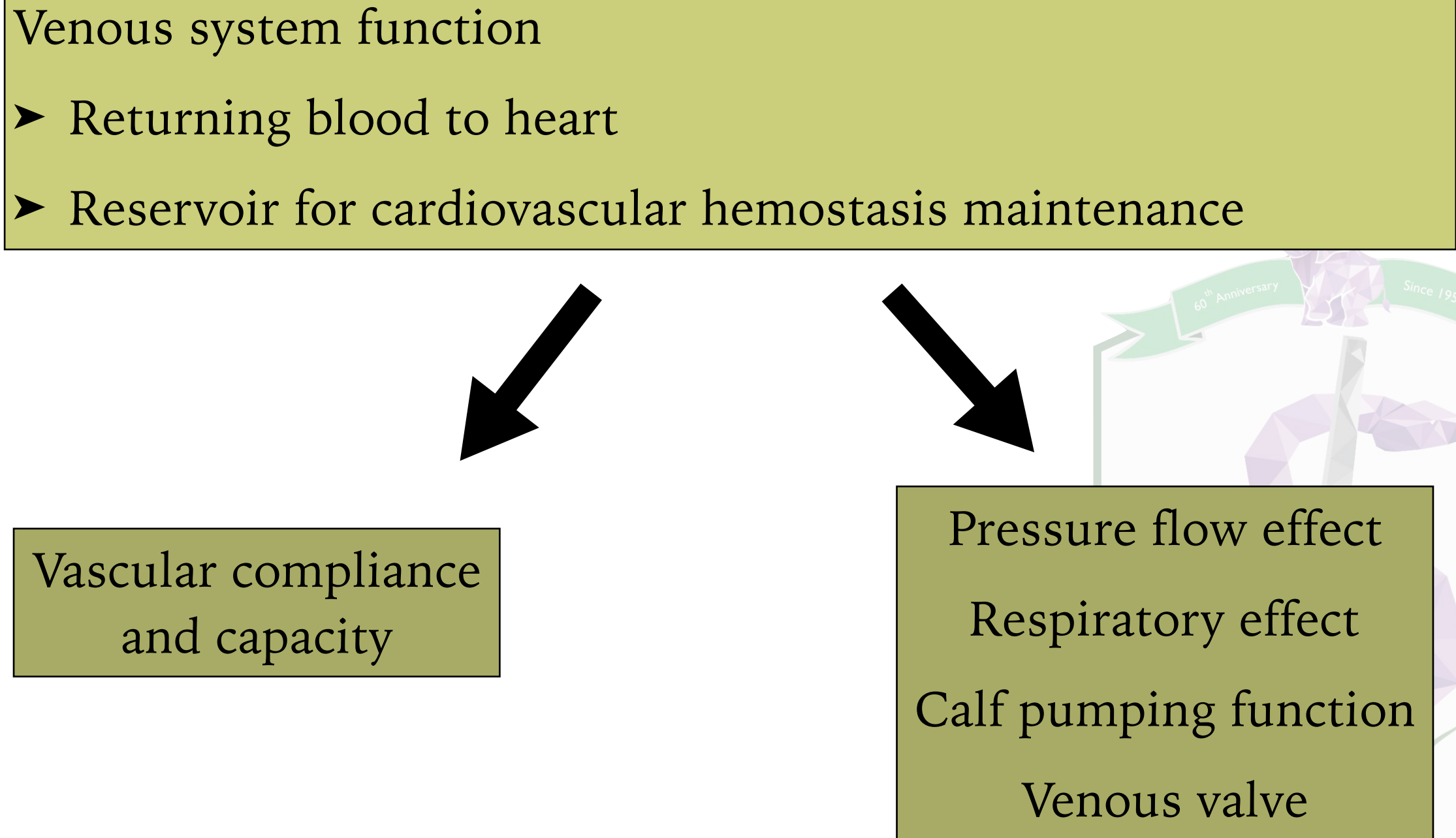
- Connected between superficial vein and deep vein system
- Multiple, vary in size along superficial vein and deep vein path



VENOUS PHYSIOLOGY

Venous system function

- Returning blood to heart
- Reservoir for cardiovascular hemostasis maintenance



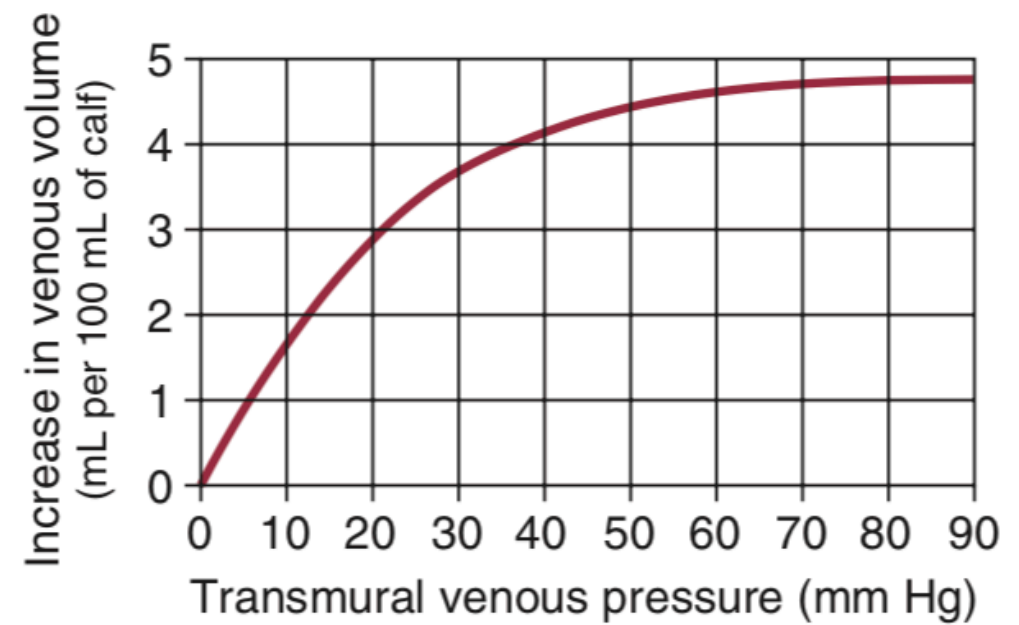
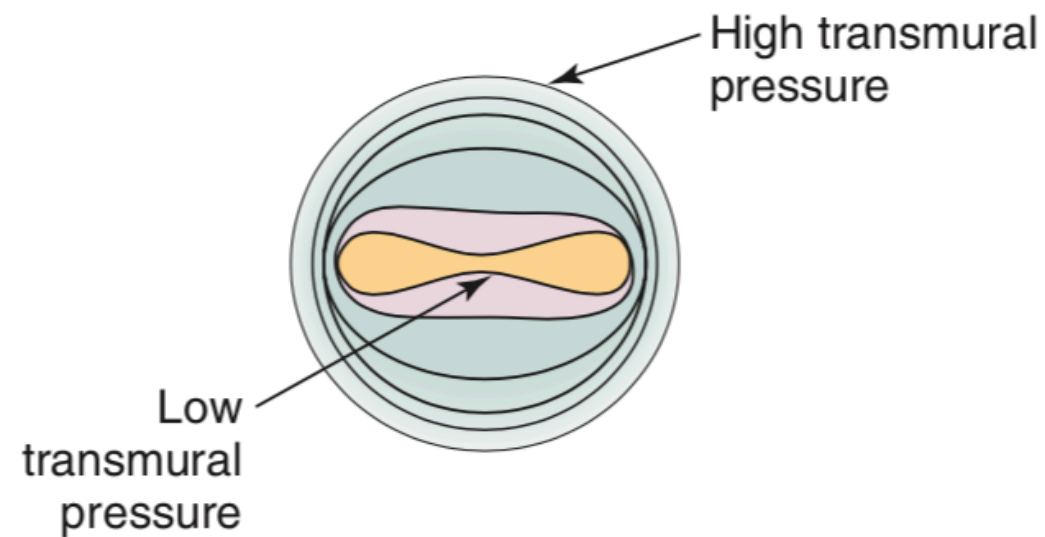
Vascular compliance
and capacity

The diagram illustrates the venous system's function and its physiological effects. A central box titled 'Venous system function' lists two main points: 'Returning blood to heart' and 'Reservoir for cardiovascular hemostasis maintenance'. Two arrows point from this box to two separate boxes below. The left box, 'Vascular compliance and capacity', is connected by an arrow pointing down and to the left. The right box, 'Pressure flow effect', 'Respiratory effect', 'Calf pumping function', and 'Venous valve', is connected by an arrow pointing down and to the right. The right box is partially overlaid by a decorative graphic of a tree with a banner at the top that reads '60th Anniversary Since 1959' and a banner at the bottom that reads 'SURGERY CMU'.

Pressure flow effect
Respiratory effect
Calf pumping function
Venous valve

VENOUS PHYSIOLOGY

Vascular compliance and capacity



VENOUS PHYSIOLOGY

Venous system function

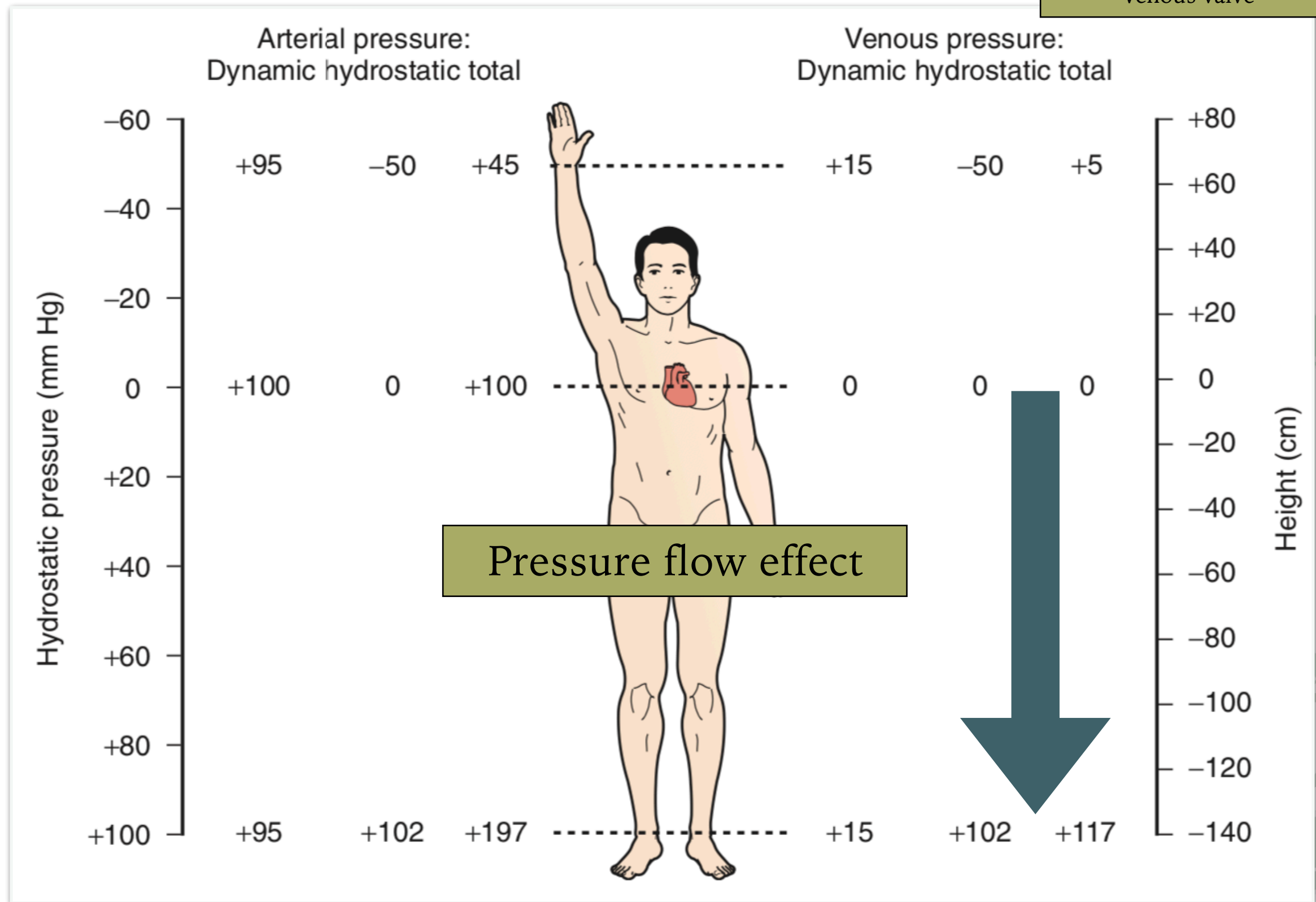
- Returning blood to heart
- Reservoir for cardiovascular hemostasis maintenance

Vascular compliance
and capacity

Pressure flow effect
Respiratory effect
Calf pumping function
Venous valve

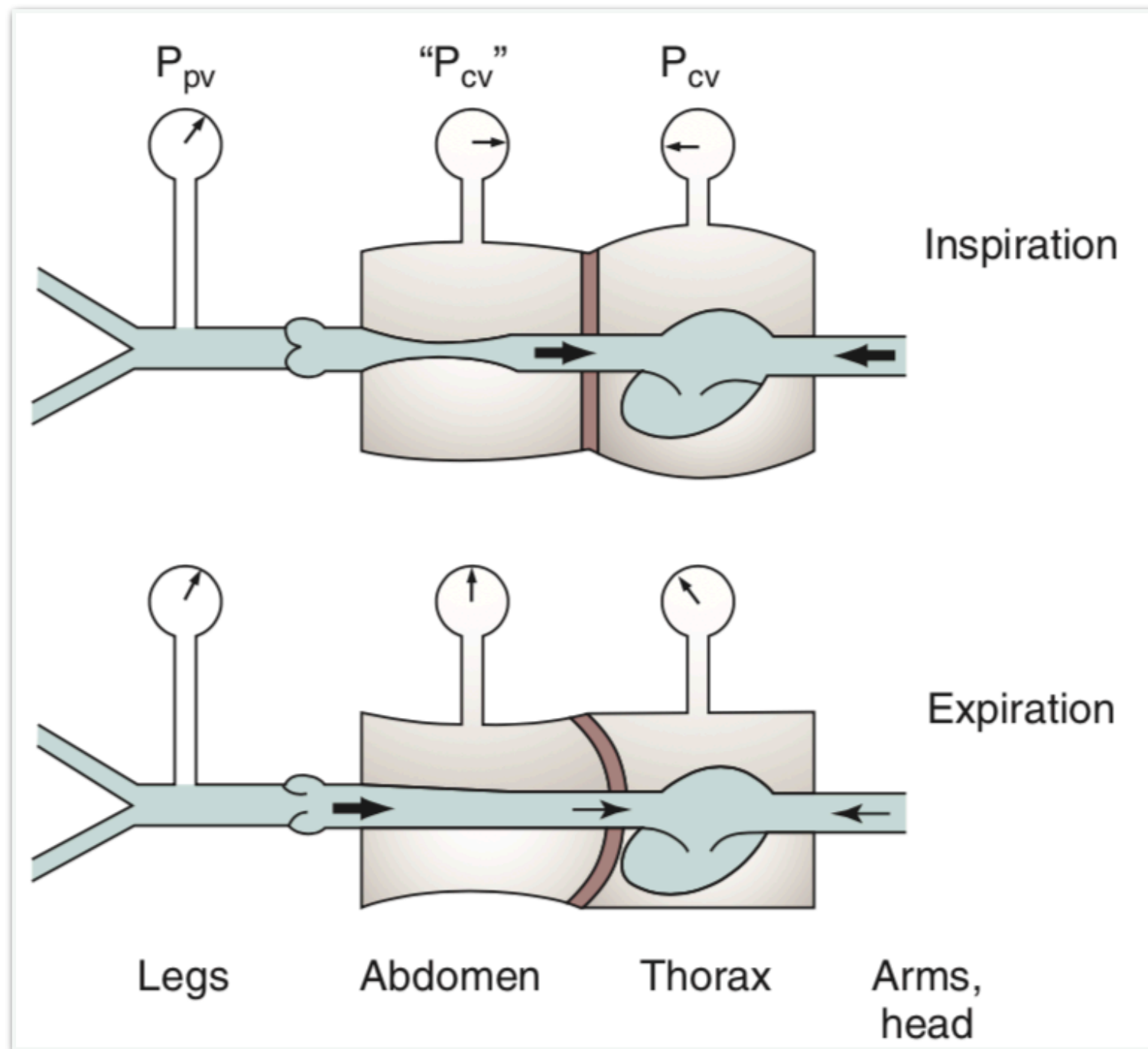
VENOUS PHYSIOLOGY

- Pressure flow effect
- Respiratory effect
- Calf pumping function
- Venous valve



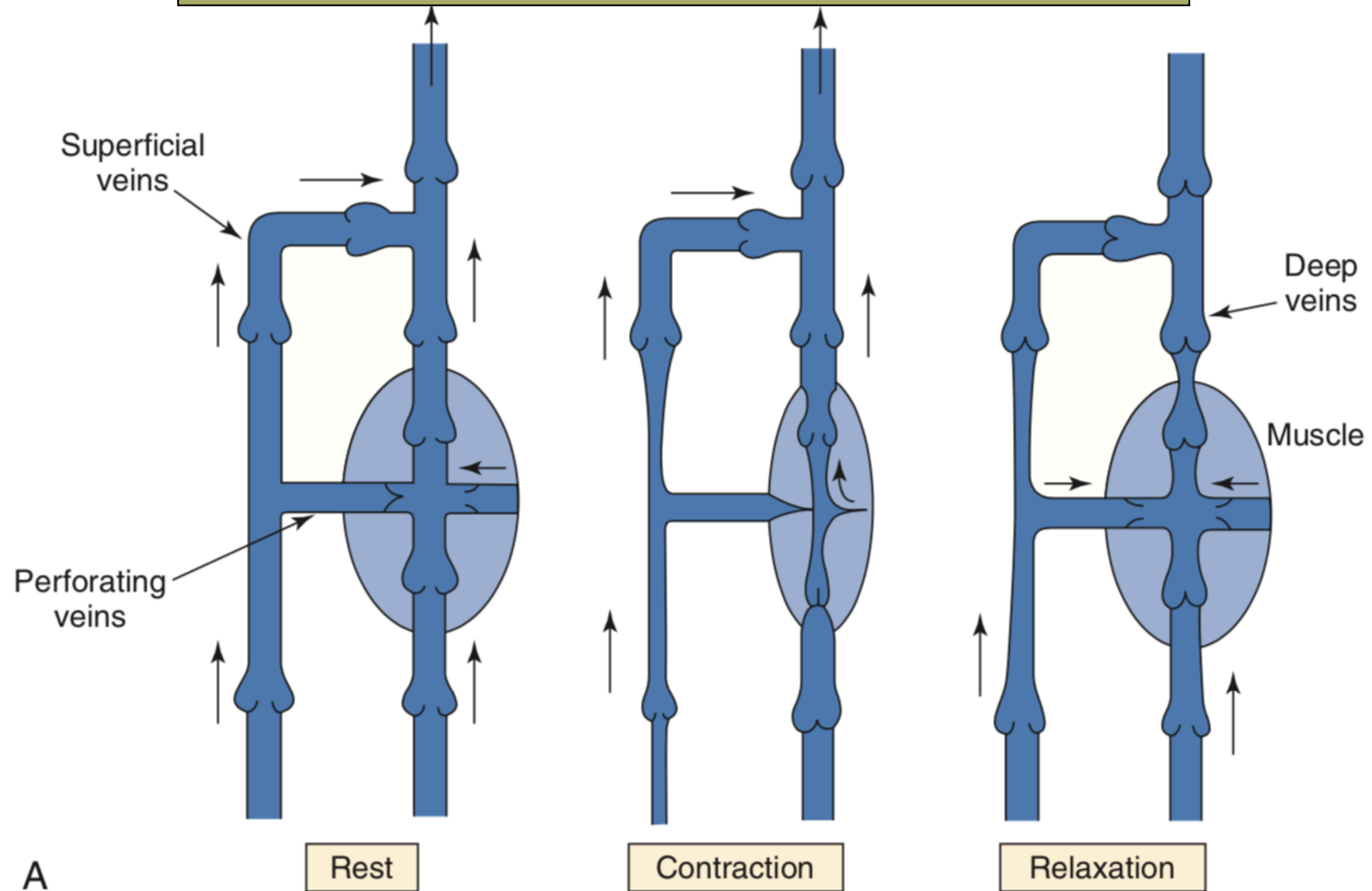
VENOUS PHYSIOLOGY

Respiratory effect



VENOUS PHYSIOLOGY

Calf pumping function and Venous valve

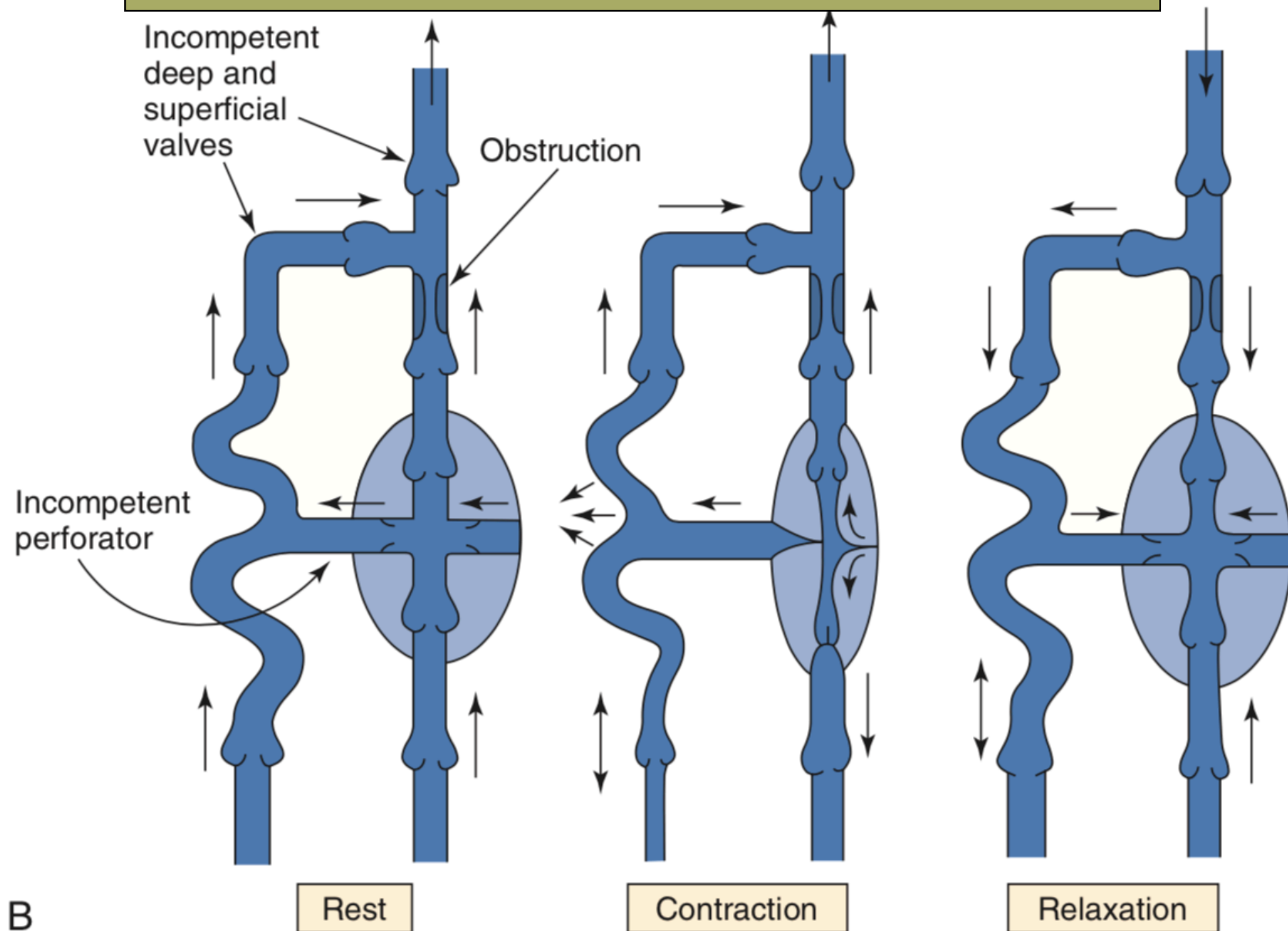


1959

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VENOUS PHYSIOLOGY

Calf pumping function and Venous valve

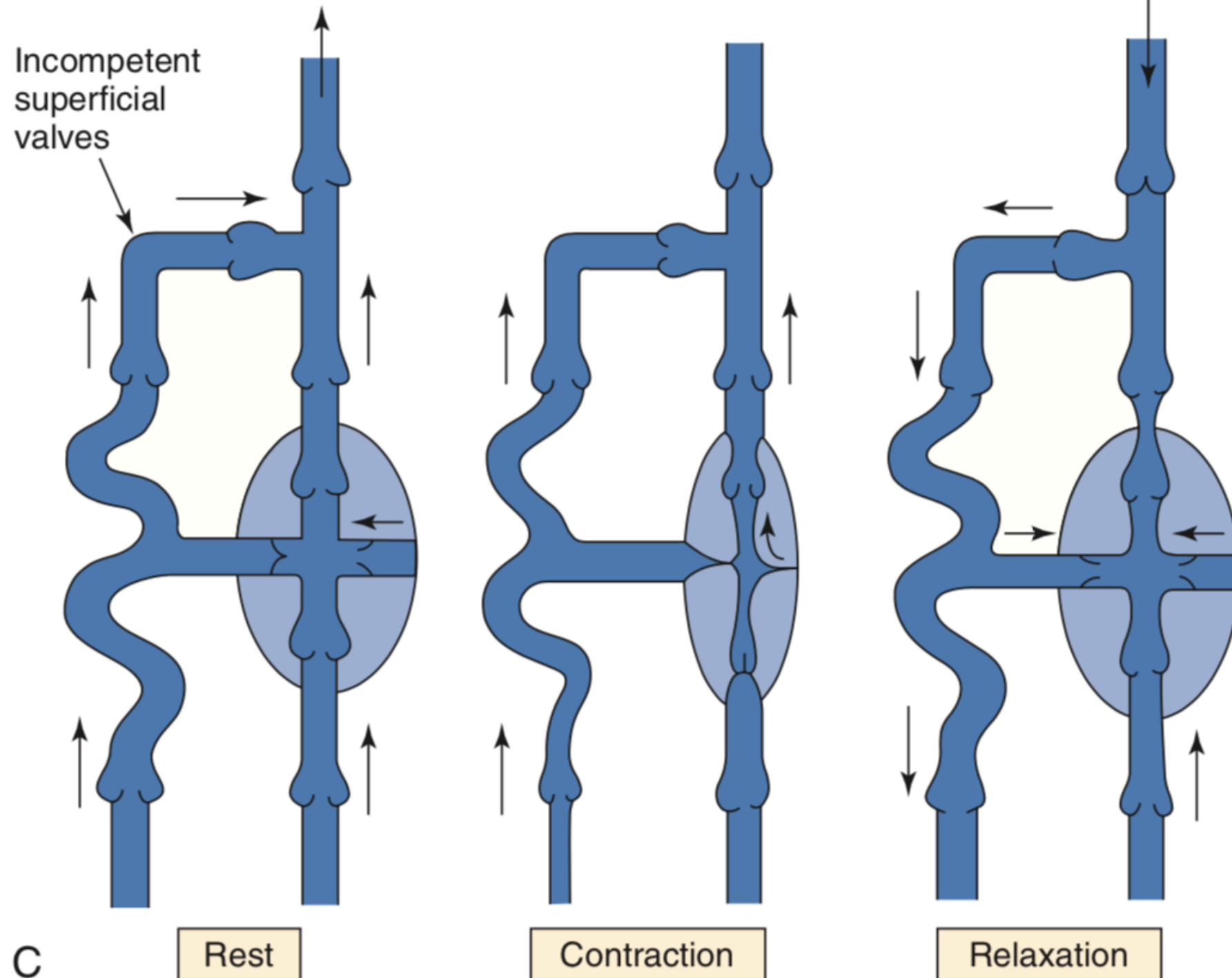


Since 1959

CMU

VENOUS PHYSIOLOGY

Calf pumping function and Venous valve



VENOUS ANATOMY AND PHYSIOLOGY

Pathophysiology of CVD

- Abnormal of Leg venous anatomy
 - Absent vein
 - Small number of venous valve
 - Occlusion or compression of leg vein

- Abnormal of Leg venous physiology
 - Poor calf pumping function
 - Venous valve dysfunction
 - Venous wall compliance



THANK YOU

