

# **Deep Vein Thrombosis (DVT) Characteristics**

Deep vein thrombosis (DVT) is a serious complication in patients with specific risk factors. Patients who fulfill any part of Virchow's triad may develop DVT, which presents as redness, swelling, warmth, tenderness and a positive Homan's sign. Often, patients can be asymptomatic.<br/>
/>



**PLAY PICMONIC** 

#### Mechanism

### Virchow's Triad

V-of-chows Triangle

Virchow's triad describes the interplay of three processes resulting in venous thrombosis; venous stasis, endothelial damage and hypercoagulability.

#### Venous Stasis

Vines Stop-sign

Venous stasis, or a decreased blood flow rate, can lead to deep vein thrombosis. Patients who are bedridden, postoperatively immobile, or those who are immobile for a relatively long period of time (plane ride), can develop a DVT.

#### **Endothelial Damage**

Inner-layer Damaged

Changes to the vessel wall, such as endothelial damage, can lead to thrombosis. Endothelial injury leads to a cascade of platelet repair, which can further incite the coagulation cascade.

### Hypercoagulability

Hiker-clogs

Patients who are hypercoagulable, such as those with familial diseases or who are just beginning warfarin (before it works as a blood thinner), have increased risk for DVT.

# **Symptoms**

#### **Tenderness**

Tenderizer

Those who develop DVT can complain of tenderness at the site of thrombosis.

# Homan's Sign

Homeless-man showing Homan-sign

Homan's sign is described by tenderness occurring from dorsiflexion of the effected foot.

## Warmth

Warm-fire

The site of thrombosis may become warm.

#### Redness

Redness

Redness, or rubor, may also develop at the site of thrombosis.



# Swelling

Swelling

Many patients display swelling at the site of pathology. Often the calf or thigh is greatly enlarged.

# Asymptomatic

Thumbs-up

About half of patients who develop DVT are asymptomatic.