

# Is your swelling leg pain from Venous Disease?





# Understanding Venous Disease

Venous disease impacts millions of people all around the world. If you notice leg pain and/or swelling you may be experiencing symptoms of venous disease. Your veins are part of the circulatory system that returns the “used” blood back to the heart. Depending upon activity and posture, 60%-80% of your resting blood resides within the venous system. The femoral and iliac veins are deep, large veins that extend from your groin up to your pelvic area, and drain into the largest vein in the abdomen, the vena cava, which goes directly into your heart.

Venous disease occurs when there is restricted blood flow in the veins, which may possibly cause a blood clot to form leading to leg pain, swelling and other symptoms.

**900,000  
INDIVIDUALS**

ARE AFFECTED BY VENOUS CLOTTING  
PROBLEMS IN THE U.S. EACH YEAR.<sup>1</sup>

# What causes Venous Disease?

Venous disease can lead to a Deep Vein Thrombosis (DVT) where a blood clot starts to form in a deep vein usually in the lower leg, thigh or pelvis. There are 3 main stages of DVTs: acute, subacute and chronic.

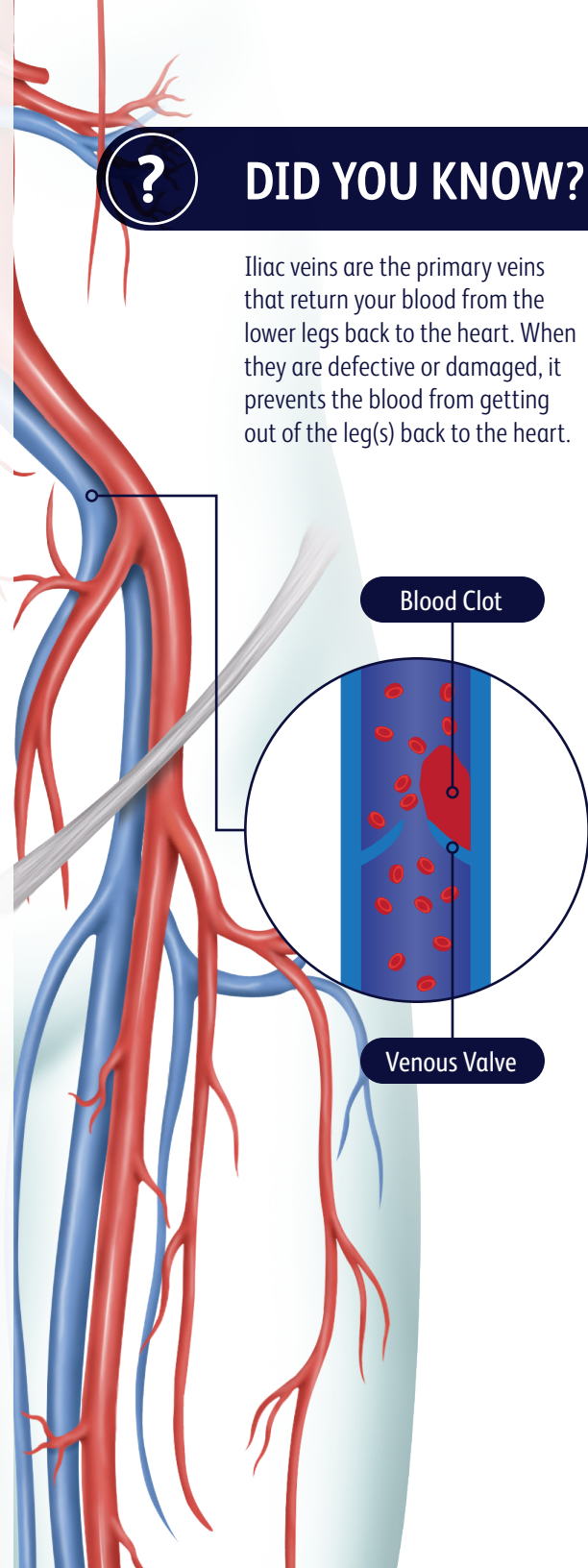
Normally, if a venous blood flow blockage is caught early, within the first two weeks, it is considered an acute DVT. A clot beyond 28 days is a chronic DVT and as the blood clot ages it will begin to get stuck to the wall of the veins. The consistency of the blood clot will start to change from a spongy-like texture to more of a tough and elastic material.

An aged blood clot can result in scar tissue formation making it very difficult for the blood to return back to the heart. This condition is known as Chronic Venous Disease (CVD), or Post Thrombotic Syndrome (PTS). As the blood clot continues to build up in your veins the body has nowhere to send the blood and therefore will cause problems in your legs such as swelling, pain, and skin discoloration. More severe symptoms are associated with clots in your veins in the groin and hip.<sup>2</sup>



## DID YOU KNOW?

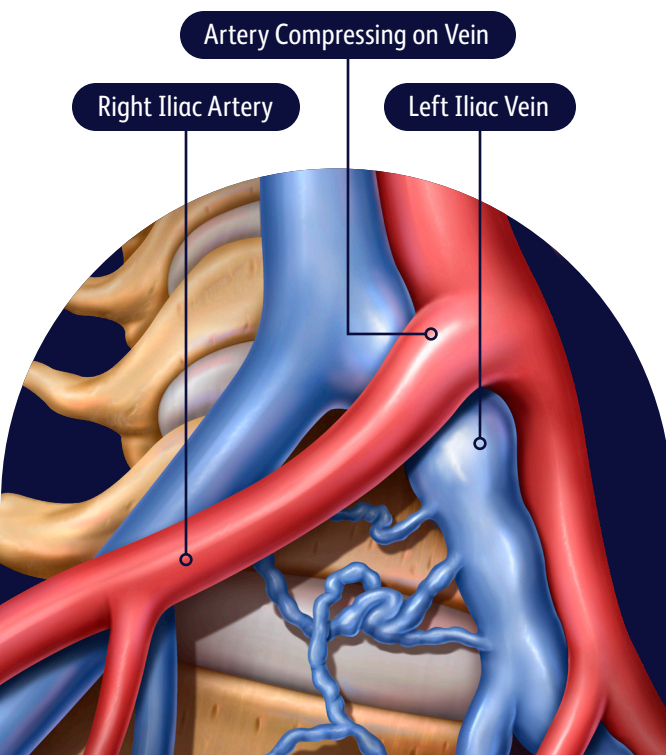
Iliac veins are the primary veins that return your blood from the lower legs back to the heart. When they are defective or damaged, it prevents the blood from getting out of the leg(s) back to the heart.



# Other causes of Venous Disease

Additionally, people can experience venous disease if they are diagnosed with anatomical abnormalities, such as a venous compression. A venous compression is a condition where the vein is being compressed by something in the body, ultimately restricting blood flow. Venous compressions called **May-Thurner syndrome** occur when the right iliac artery, located near the belly button, compresses the left iliac vein, resulting in narrowing of the vein.

These anatomical abnormalities restrict blood flow in the vein and can also lead to a DVT.



## DID YOU KNOW?

May-Thurner syndrome usually presents in the left leg and is more common in younger women.



# Identify risk factors earlier

Recognizing the risk factors sooner is the first step towards getting diagnosed and treated by your physician. This is important, as these risk factors could cause a DVT and potentially lead to chronic venous disease.

**TRAUMA**



**OBESITY**



**PREGNANCY**



**SURGERY**



**SMOKING**



**CANCER**



**VENOUS COMPRESSION**



**GENETIC CLOTTING DISORDERS**



**ORAL CONTRACEPTIVES**



**HORMONE THERAPY**



**PROLONGED TRAVEL/IMMOBILITY**





## Check for symptoms

Every venous case is different, therefore, you may have a few or none of the venous disease symptoms below. Some people may experience more swelling in the left leg or notice leg pain when standing.



**LEG SWELLING**



**LEG PAIN WHEN  
STANDING**



**LEG  
DISCOLORATION**



**LEG WOUNDS**

# Diagnosis

Diagnostic tools may be used by your physician in order to locate blockages in your veins, around areas of your legs, groin and pelvis, especially if venous disease is suspected.

## MEDICAL & FAMILY HISTORY



If you have a family history of DVT, or if you've previously had DVT, your chances of developing chronic venous disease may increase.

## PHYSICAL EXAMS



If you are presenting with symptoms of venous disease such as leg pain, swelling, skin discoloration, varicose veins and/or leg wounds, see your doctor for a physical exam.

## DIAGNOSTIC IMAGING



If your symptoms are severe, you may need diagnostic imaging to see inside your veins. This may include an X-Ray and/or a catheter-based imaging tool to locate blockages in your vein(s).



# Options for managing Venous Disease

Venous disease can be dangerous if not treated. If there is any detection of signs or symptoms a doctor should be seen immediately. It's important to understand your venous anatomy and the disease in order to identify symptoms sooner and reduce your overall risk. Please consult with your doctor on the best treatment options available to you, as your physician may be considering various ways to treat your narrowed, obstructed or compressed vein(s).



## PREVENTATIVE & MANAGEMENT THERAPIES

---

**Blood Thinners** - If a DVT is present or if you are at risk for one, you may be prescribed blood thinners

**Compression Therapy** - Those at risk of getting a blood clot may be encouraged to use compression stockings and/or mechanical foot pumps

## INTERVENTIONAL TREATMENT

---

These treatment options may include minimally invasive surgeries by either removing or dissolving a blood clot via a catheter and/or implanting a venous stent to open your narrowed vein



# Lifestyle changes

Living a healthy, active lifestyle can greatly improve your quality of life and help prevent symptoms from returning.

You should talk to your doctor about lifestyle changes and how to increase your chances for a healthier outcome.

You may want to consider the following options below to reduce your overall risk of venous disease which may improve the circulation of your blood flow:

- Use compression therapy
- Maintain a healthy weight
- Increase activity levels
- Elevate your legs





# PATIENT RESOURCE GUIDE

## GLOSSARY

### Artery

A blood vessel that carries blood from the heart and lungs through the body. Blood in arteries is full of oxygen.

### Blood Clot

A clump of blood cells that can block or prevent normal blood flow.

### Blood Thinners

Medications that prevent blood clots from forming.

### Catheter

A small, hollow tube used for gaining access to a blood vessel and delivering treatment therapies.

### Iliofemoral Veins

The veins that extend from your groin up to your pelvic area.

### Stent

An expandable, metallic, tubular shaped device that provides structural support for a vessel.

### Vein

A blood vessel that carries blood from the organs of the body back to the heart. Blood in the veins is deoxygenated.

### Venous Disease

Vascular disease when the veins in the extremities become narrowed or obstructed limiting blood flow back to the heart.

## REFERENCES

- <sup>1</sup> Venous Thromboembolism: Data & Statistics. Centers for Disease Control and Prevention. (February 5, 2018). Retrieved October 11, 2018, from <http://www.cdc.gov/ncbddd/dvt/data.html>
- <sup>2</sup> Gloviczki P, et al. The Layman's Handbook of Venous Disorders. Adapted from the Handbook of Venous Disorders; Guidelines of the American Venous Forum, Third Edition (Hodder Arnold, London 2009)

**bd.com**

BD, Tempe, AZ, USA,  
1 800 321 4254

