

A REVIEW OF

Venous Disease Impacting Primary Care

Millions of people worldwide are affected by venous disease disorders. They can originate from a variety of factors, including genetics, gender, age, and occupations.

Initial detection and management are the first steps to preventing more serious complications.

This review provides an overview of venous disease – its risk factors, symptoms, and prevalence.

1

Prevalence

This vein disease affects more than 25 million adults in the United States alone.

2

Definitions

Defining the root causes of venous reflux and varicose veins.

3

Risk Factor Assessment

Recognizing known risk factors that commonly lead to venous disorders.

4

Identifying Symptoms

There are a few key factors associated with venous disorders.

5

Vein Intervention

Referring to a vascular surgeon for evaluation and management.

6

Testimonials

What patients are saying about their results.

1 Prevalence

Epidemiology and Demographics

Chronic venous insufficiency (CVI) affects more than **25 million** adults in the United States alone, and more than 6 million with advanced stages of venous disease. The high incidence of CVI and the increasing costs of care, place a heavy financial burden on the US health care system. Recent studies estimate the total cost of care at more than **\$3 billion per year**. These staggering numbers highlight the importance of timely diagnosis, treatment, and prevention of CVI Sequelae.¹



- Only **1.9 million** seek treatment annually
- More than **23 million** go untreated

Prevalence by Age and Gender

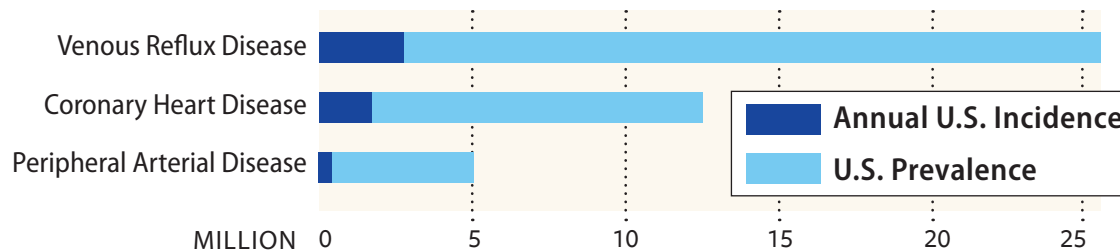
AGE GROUP	FEMALE	MALE
40 – 49	41%	24%
*60 – 69	72%	43%

Venous disorders are more common in women than men, and their prevalence increases with age.

* 4% of adults over age 65 develop venous ulcers

Prevalence and Etiology

Venous reflux disease is **2 times** more prevalent than coronary heart disease (CHD) and **5 times** more than peripheral arterial disease (PAD).²



CITATIONS

¹Kim Y, Png CYM, Sumpio BJ, DeCarlo CS, Dua A. Defining the human and health care costs of chronic venous insufficiency. *Semin Vasc Surg.* 2021 Mar;34(1):59-64. doi: 10.1053/j.semvascsurg.2021.02.007. Epub 2021 Feb 3. PMID: 33757637.

²Gloviczki P, MD, Comerota A, MD, Dalsing M, MD, Eklof B, MD, Gillespie D, MD, Gloviczki M, MD, Wakefield T, MD. The care of patients with varicose veins and associated chronic venous diseases: Clinical practice guidelines of the Society for Vascular Surgery and the American Venous Forum. *J Vasc Surg.* 2011 May; 53(5 Suppl): 2S-48S.

2 Definitions

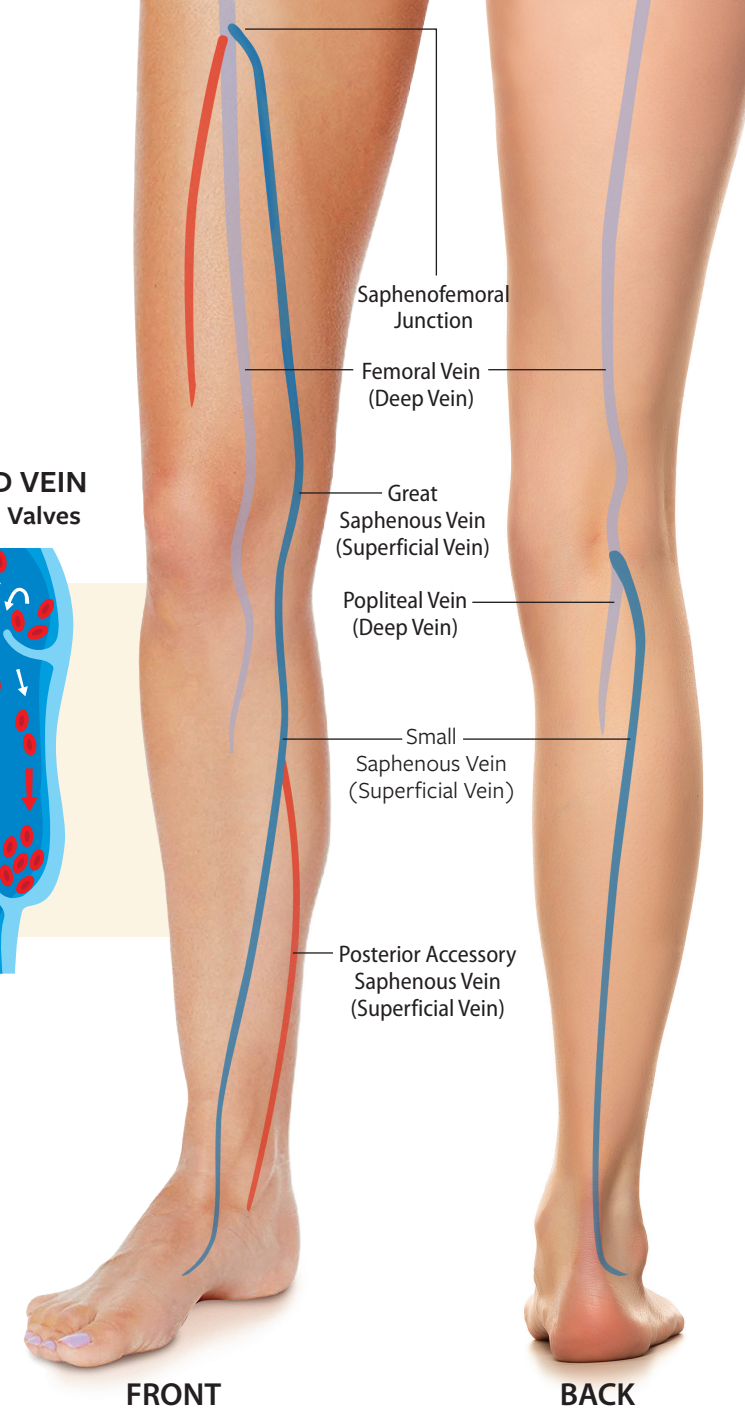
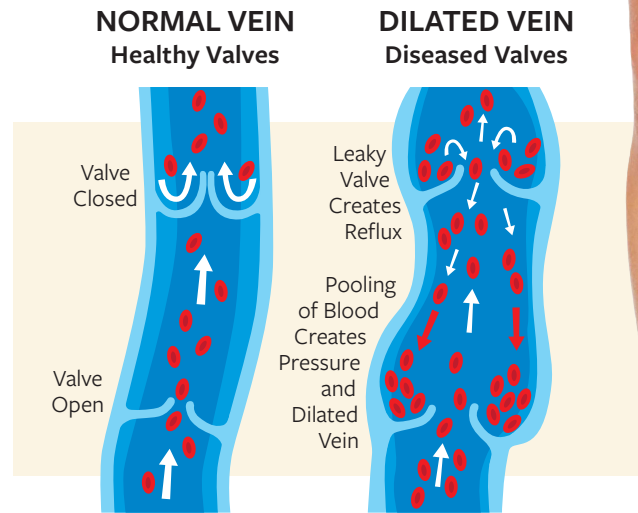
Venous Insufficiency

Sometimes referred to as venous reflux or chronic venous insufficiency, it is a condition that occurs when the leg veins have difficulty properly circulating blood back to the heart.

Normally, healthy leg veins have one-way valves that prevent blood from flowing backward, ensuring that it moves in the right direction – towards the heart.

However, when these valves become weakened, damaged or diseased, they fail to close properly. As a result, blood leaks backwards through the valve (**Venous Reflux**) and pools in the lower legs which causes pressure in leg veins. The increased pressure may cause surface veins to become dilated (**varicose**). Left untreated more serious complications of leg ulcers, PE, DVT, or secondary lymphedema may occur. Other complications may include stasis dermatitis, thrombophlebitis, cellulitis, and hemorrhage.

- **Valve Dysfunction**
 - weak or damaged vein valves that don't close properly and leak
- **Vein Pressure**
 - blood pooling leads to increased pressure and further vein damage
- **Vein Distension**
 - increased pressure and backflow of blood distend veins – varicose veins



3 Risk Factor Assessment

Common Risk Factors



■ Family history of vein problems



■ Prolonged standing or sitting at work



■ Gender



■ Pregnancy



■ Aging



■ Obesity



■ Sedentary lifestyle



■ History of blood clots

4 Identifying Symptoms

Symptomology of Venous Disorders

1 Leg Pain and Swelling

Lower extremity pain and swelling are common symptoms due to venous congestion. This can be exacerbated by prolonged standing or sitting.

2 Leg Fatigue and Heaviness

Patients may experience feelings of heaviness, fullness, or aching in their legs, particularly at the end of the day. Their fatigued legs may also present with throbbing, tightness, and itching.

3 Visible Veins

Varicose veins which are enlarged and twisted can contribute to discomfort and are subject to thrombophlebitis.

4 Skin Discoloration

Skin discoloration, such as redness, brown pigmentation, or even ulceration, can indicate venous insufficiency.

5 Weeping Tissue – Open Wounds

Weeping skin is usually a symptom of venous insufficiency which leads to venous ulcers (open sores). They occur on the leg above the ankle, are very slow to heal, and usually require vein closure to correct the underlying condition.

5 Vein Intervention

Refer Your Patient To A Vascular Surgeon

Consider Risk Factors

- Family history of vein problems
- Prolonged standing or sitting
- Sedentary lifestyle
- Obesity
- Gender
- History of blood clots
- Pregnancy
- Aging

Look For Symptoms

- Visible Sock Indications
- Lower Extremity Skin Rashes
- Skin Breakdown on Lower Legs
- Varicose Veins
- Leg Swelling
- Non-Healing Wounds
- Leg Ulcers
- Skin Discoloration

Listen To Patient Complaints

- Legs that Ache or Feel Restless
- Need to Prop Legs Up Daily
- Burning or Itching Skin
- Varicose Veins
- Legs that Feel Full – Heavy
- Legs that Feel Sluggish
- Itching on Lower Legs
- Discoloration at Ankles

When you suspect valve dysfunction, vein pressure, or vein distension – send to **Triangle Vein Clinic**



6 Will Your Referral Make A Difference?

What Triangle Vein Clinic Patients are saying...

"I have experienced such a new surge of energy and my legs feel so much lighter. I am doing more now than I've done in years! I never knew what a life changing event my vein surgery would be for me. In addition my over all physical health has improved as well. Thank you, Dr. Medina!" – **Jenny M.**

"Having my procedures done provided a great way of taking better care of myself. My legs just feel so much better. I can go and do more now with more energy and confidence to travel. I have several fabulous vacations planned. Many thanks to the great team at Triangle Vein Clinic!" – **Carol C.**

"Dr. Medina, you and your staff are so kind and caring. You delivered incredible results. My legs feel twenty years younger. Now I enjoy walking pain free everyday for miles. My one regret is not going sooner, I had no idea what a difference this would make." – **Jackson T.**



Patient Vein Care Under One Roof

Surgical Vein Evaluation, Treatment, and Management

- Venous Ultrasound
- Debridement
- Vein Closure
- Stockings & Fittings
- Unna Boots
- Sclerotherapy



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