A ROAD MAP
FOR VENOUS DISEASES AND TREATMENTS

Venous disease is a family of common but manageable conditions. Understand the types, how the disease develops and progresses, and treatment options that can help.

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HOW THE VASCULAR SYSTEM WORKS

Your vascular system consists of arteries and veins that transport blood via tube-like structures throughout your body. It's part of the cardiovascular system, also known as the circulatory system.

Together, your vascular system works with your heart to carry nutrients and remove waste.

VENOUS DISEASES

When vein walls become damaged, it can cause blood to flow in the wrong direction. This increases pressure, which can twist and turn your veins in abnormal ways, cause swelling, further weaken the veins, hinder blood flow and lead to clot formation. The diseases that result are known as venous diseases.

Common forms of venous disease include:

- **Thrombosis.** A blood clot (thrombus) forms in a blood vessel abnormally, obstructing blood flow. When a clot forms in a major vein, it is called deep vein thrombosis.

- **Varicose veins.** The veins swell and/or twist, appearing purple or blue beneath the skin.

- **Ulcers.** The veins in your legs don't move blood back to your heart efficiently, increasing pressure that can result in ulcers, or open sores, forming on the skin.
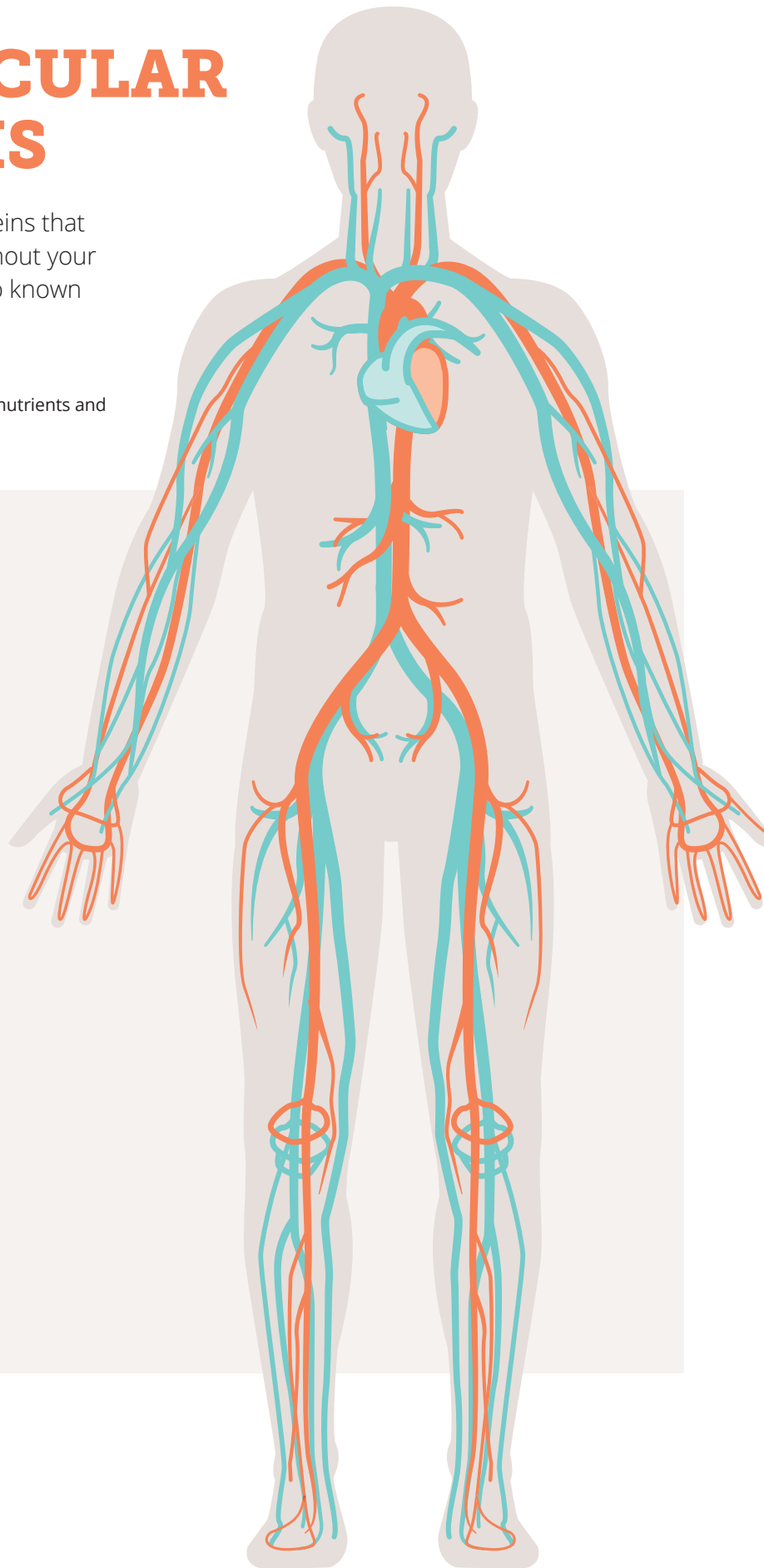
IMPORTANCE OF VEIN HEALTH

Without diagnosis and proper treatment, vascular disease can progress and cause further complications.
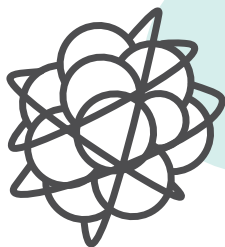
Most of us take our veins for granted. At any given time, our veins carry 70% of the blood in our bodies back to our hearts to be replenished with more oxygen.

But as we age, many of us start seeing varicose veins, most commonly on our legs. Usually deep purple, the swollen vein clusters just under the skin can be caused by obesity, sitting or standing for long periods at work, or simply getting older.

Your first concern might be how your skin looks with this unwelcomed addition. But varicose veins are not simply a cosmetic issue — they could be a sign of chronic venous insufficiency or another problem with your veins.

WHAT IS CHRONIC VENOUS INSUFFICIENCY?

Chronic venous insufficiency (CVI) happens when vein walls or valves become weakened, causing the veins to struggle to move blood back to your heart. This leads to blood pooling in the veins, which can cause swelling, itching, numbness or pain. The condition may be aggravated after standing for a long period of time.

Without treatment, chronic venous insufficiency can lead to serious pain in your legs. You might experience rashes, inflamed or crusty skin, hardening of parts of your skin, and eventually open sores or ulcers.

THE RISK OF DEEP VEIN THROMBOSIS

Untreated, severe CVI can also lead to deep vein thrombosis (DVT). A DVT is a large blood clot that forms deep inside a vein, usually in your calf or thigh. If the clot breaks loose, it can cause a pulmonary embolism in your lung, which can be life-threatening. DVT can also occur from sitting too long, such as on a long flight, or after surgery. Blood clots in your legs can also ultimately cause CVI, putting you at risk for more clots.

PREVENTION AND MANAGEMENT

Weight loss, regular exercise, lifestyle changes, and compression socks or hosiery can all help improve CVI. People at risk of blood clots may need occasional or regular doses of blood thinners. There are also procedures like sclerotherapy, phlebectomy, laser surgery and vein stripping that can help treat the pain of swollen and varicose veins.

If you have varicose veins, a family history of the disease or other risk factors, a primary care provider (PCP) at Beaufort Memorial can help. Find a PCP who is right for you.

TREATMENTS FOR VEIN DISEASE

Vein disease is fairly common. However, the illness may cause further complications if left untreated.

If noninvasive methods, such as compression therapy and elevation, do not help manage vein disease, you may need further care. Talk to your health care provider if vein problems are causing leg pain, skin sores or hardened skin on legs and ankles. Your provider may recommend one of the following procedures:

- **Angioplasty and stenting.** This treatment opens a blocked blood vessel to improve blood flow to your legs. The procedure may be either outpatient or inpatient, and many patients go home within a few hours of the surgery. During angioplasty, a surgeon guides a catheter (a thin, hollow tube) attached to a medical balloon into a blocked artery. The balloon inflates to open the artery and a stent is permanently placed inside. The stent is a small metal tube that keeps the artery open.

- **Endovenous ablation (with laser).** Endovenous ablation uses laser energy to close abnormal veins. A generally safe, minimally invasive procedure, endovenous ablation can usually be completed in one hour. Your provider makes a very small incision in the skin and inserts a catheter into the abnormal vein. Using ultrasound imaging, the catheter is guided through the vein, and a laser on the catheter sends a burst of heat into the vein to cause it to close. The procedure leaves almost no scarring, and patients can often return to normal activities immediately.

- **Phlebectomy.** During this treatment, your provider uses a small needle and hook to remove varicose veins close to the surface of the leg. The outpatient procedure, which usually takes about an hour, is performed with local anesthesia so you don't feel pain. Most patients can return to daily activities within 24 hours.

- **Vein stripping with ligation.** Vein stripping helps alleviate varicose veins. You will be under general anesthesia and unable to feel pain. A surgeon makes a few incisions in your leg and guides a wire into the vein. The wire helps pull out the damaged vein, and the blood naturally reroutes to other veins.

3 STEPS TO BETTER VEIN HEALTH

Avoiding vein disease is easier than treating the condition after it develops. Here are three ways to keep your veins in good shape:

1. **Get moving.** A sedentary lifestyle puts you at greater risk of vein disease. Regular physical activity helps keep the blood moving in your legs.

2. **Keep a healthy body weight.** Being overweight puts more pressure on the veins. Staying at a healthy weight can help prevent vein disease.

3. **Quit smoking.** Smoking can cause peripheral vascular disease, a condition in which narrowed blood vessels cause insufficient blood flow throughout the body. Stop smoking for better vascular health.

Find a vascular surgeon who can help you identify and treat venous disease.

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