Welcome

The Vein Care Center at Muskegon Surgical Associates, P.C. is committed to the diagnosis and treatment of venous insufficiency. We are the only facility along the lakeshore that has experienced vascular surgeons trained specifically in diseases of the arteries and veins. We offer a wide range of treatment options for patients using state-of-the-art technology.

Venous Insufficiency
Varicose Veins
Spider Veins
Venous Stasis Ulcers
Pelvic Congestion Syndrome
Superficial Thrombophlebitis
Deep Vein Thrombosis

Please take a few minutes to review the information in this brochure. Understanding your disease and treatment options will help you make decisions about your care. We offer conservative, non-surgical options, office based procedures and hospital surgery. One or more treatments may be necessary. The Vein Care Center has an experienced team of surgeons, nurses, patient coordinators, insurance specialists, ancillary staff and sonographers at The Vascular Lab of West Michigan available to assist you. Please do not hesitate to contact us.

Thank you for allowing Muskegon Surgical Associates, P.C. to participate in your health care needs.
Your first visit will include a review of your medical history, medications, allergies, referring physician notes, symptoms and an examination of your veins. If indicated, we will perform an in-office ultrasound (duplex) on your veins prior to your appointment. Ultrasound testing determines if the valves in your veins are working properly. We may ask to take photos of any visual varicosities, as insurance companies frequently request them prior to approving varicose vein treatment. We may give you a prescription for compression stockings to help alleviate symptoms and promote healing after treatments. Together, we will decide on a treatment plan that best meets your needs.

Additional resources

http://www.msa-veincarecenter.com: The Vein Care Center site includes additional information regarding diagnosis, treatment, pre and post procedure instruction, before and after photos, and testimonials.

www.msapc.com: About us, register, complete forms, financial information.


www.rethinkvaricoseveins.com: Learn more about varicose veins, take the self-assessment test.

http://www.veinforum.org/patients: American Venous Forum is the patients and professional resource for education.


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Understanding Venous Disease

Our circulatory system includes the heart, arteries, capillaries and veins. The heart pumps oxygenated blood from the heart through the arteries. Blood filters through capillaries where oxygen and nutrients are absorbed, then circulates back to the heart through the veins. A series of one-way valves in the vein open and close to keep blood flowing back to the heart. When the valves fail to close completely, blood collects in the veins and builds up pressure causing varicose veins. The vein weakens, enlarges and twists.

Varicose veins can be hereditary, develop during pregnancy or be caused from obesity. Prolonged standing or sitting can also cause varicose veins. Varicose veins may cause legs to feel tired or heavy. They can become, painful and cause skin thickening and ulceration.

Competent (Healthy) Veins

Healthy veins have a series of multiple valves that open and close aiding the return of blood to the heart. These are referred to as competent valves. When a muscle relaxes, the valve closes preventing the blood from back flowing.

Incompetent (Unhealthy) Veins

When the valves within the vein become weakened or damaged (incompetent), the valves allow blood to backflow and pool in the vein. This causes an increase in pressure on the vein walls and eventually the vein will begin to “bulge” or varicose. This can lead to medical conditions referred to as Venous Disease or Chronic Venous Insufficiency (CVI). CVI may cause aching, heaviness, pain, cramping, fatigue, swelling, itching, bleeding and leg ulcers.

Incompetent valves are treated prior to other procedures to help prevent recurrence of varicose veins.
Not all vein problems are the same. It is important to determine the underlying cause of your condition. Your surgeon will perform a physical exam and order a non-invasive ultrasound if indicated.

Duplex imaging/ultrasound uses sound waves to create an image of your veins. The image shows the size, shape, location and the condition (competency) of the valves within the vein.

Treatment decisions are based on your signs and symptoms, physical exam and the results of ultrasound testing. Multiple sessions may be required for complete treatment of venous disease. Failure to follow the preoperative and postoperative instructions may result in cancellation of your treatment and/or affect the outcome of your procedure. Surgical treatment for varicose veins can be delayed for the following reasons: pregnancy, ulcers, cellulitis, infection, phlebitis and deep vein thrombosis.

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**Types of Varicose Veins**

**Spider Veins** are signs of venous insufficiency in superficial veins located just under the skin. They are groups of tiny blood vessels that resemble spider webs or tree branches. Spider veins may appear red, purple or blue in color. Diagnosis of spider veins may include a visual exam and ultrasound (duplex) of the veins. Treatment options are conservative treatment, sclerotherapy, dermal laser or a combination of treatments. Some insurance policies consider treatment for spider veins cosmetic.

**Varicose Veins** are superficial veins that have become large, ropey or bulge in appearance. They may stand out visually from the skin and appear to turn or twist. The veins can be a combination of red, purple or blue in color. Diagnosis of varicose veins includes your symptoms, visual exam and ultrasound. Treatment may include one or more of the following options: conservative treatment (compression hose), dermal laser, sclerotherapy, radiofrequency ablation, miniphlebectomy and high ligation.

**Perforator Veins** communicate between superficial veins (spider and varicose veins) and the deep venous system. These are identified by ultrasound. Treatment may include ultrasound guided sclerotherapy and/or radiofrequency ablation.

**Chronic Venous Insufficiency (CVI)** is a condition that occurs when damaged valves within the vein fail to close properly. The incompetent valves allow blood to backflow into the vein causing increase pressure on the vein walls and surrounding tissue. The extra pressure may cause leg swelling or fluid that leaks into the tissues. The symptoms increase as the disease progresses. The skin may be dry, itchy or become thickened. Hyperpigmentation (discoloration) may occur turning the skin red, brown or purple. When left untreated the skin breaks down and an ulcer forms. The ulcer may have an odor and have yellow or green drainage. Venous stasis ulcers are usually slow to heal and may return if the underlying disease is not treated. Treatments include a combination of radiofrequency ablation, sclerotherapy and compression.
Risks and Complications of Surgery

Your surgeon will discuss the benefits and risks of each procedure. Complications may include bruising, swelling, hyper-pigmentation, staining (darker) skin at the injection sites, superficial phlebitis, deep venous thrombosis (blood clot), bleeding, infection, and additional superficial veins. Other risks include reactions to medications injected including anesthesia, scarring, blisters, ulcerations, nausea, vomiting, and numbness at the incision. Your risks of having complications increase if you are a smoker and with certain diseases such as heart disease, obesity, and failure to follow your preoperative and postoperative instructions.

Prior to Treatments

**Medications.** Notify our staff if you take anticoagulants (blood thinners). Take all of your other medications as usual.

**Quit smoking.** Smoking decreases the blood supply to the tissues causing a delay in healing and also increases your risk of respiratory problems. Literature regarding smoking cessation is available from our nursing staff. We encourage you to contact your primary care physician for assistance in smoking cessation.

**Financial arrangements.** Our office staff will explain the consent and insurance information. Please notify your primary care physician and insurance company of your procedure. You will be given a surgical estimate including your insurance coverage and out of pocket responsibilities, such as co-pays and deductibles.

**Scheduling.** Our scheduling department will call you with the date and time of your procedure. Use this brochure to document the dates and times of your appointment and review the pre-operative and post-operative instructions.

**Prescriptions.** Pick up prescriptions and compression stockings prior to your procedure dates.

**Compression stockings.** Bring your compression stockings to all procedures. Failure to wear your compression stockings can affect the outcome of your procedure. You will find a list of compression stocking suppliers on the last page of this brochure.

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Treatment Options for Varicose Veins

Most insurance companies require conservative treatment prior to procedures to treat varicose veins. The severity of disease and competency of the veins determine if one or more procedures will be necessary. Following the pre and postoperative instructions for each treatment will increase the chances of a successful treatment outcome.

Conservative treatment includes wearing support hose (compression keeps blood from pooling in your veins and helps decrease swelling). Exercise, weight loss programs and elevating your legs above the level of your heart can also help improve your symptoms.

Radiofrequency Ablation (RFA) is a procedure performed in the office with local anesthesia, utilizing heat to close the greater, lesser or perforator vein. The surgeon places a catheter into the vein through a small opening in the skin. Radiofrequency (RF) energy delivers heat to the vein wall causing the vein wall to shrink and close, diverting blood to healthy veins.

High Ligation is indicated when the saphenous veins cannot be treated with a radiofrequency catheter. The procedure is performed in the hospital.

Miniphlebectomy/Microphlebectomy is a procedure performed on large varicose veins. The procedure is usually performed in the office using local anesthesia. It involves multiple small incisions to bring the vein to the surface for removal.

Ultrasound Guided Sclerotherapy uses ultrasound guidance to locate perforator veins (veins communicating between the superficial and deep system). The veins can be injected with medication (sclerosing agent) to close them.

Sclerotherapy/vein injection involves injecting medication (a sclerosing agent) into the superficial veins, making the veins sclerose (seal). The body eventually reabsorbs treated veins.

Dermal laser uses focused laser energy to the skin surface, shrinking the vein. This is reserved for the smallest of spider veins. Dermal laser may be used in conjunction with sclerotherapy.
Frequently Asked Questions

Do I need a referral for evaluation of varicose veins? No, you may call the office at 231-739-1932/231-739-9461, toll free at 1-888-874-5892 to make an appointment for your evaluation.

Will I have to have any testing? You may need a duplex (ultrasound) to determine if the valves in your veins are functioning properly prior to determining the treatment plan. Radiofrequency procedures require additional testing after each procedure.

Does my insurance cover treatments for varicose veins? It depends on the type of treatments the surgeon recommends and the type of insurance you have. On the first visit or after testing, the surgeon will develop a treatment plan. In most cases if you have symptoms and/or the valves in the veins are incompetent, your insurance will cover the procedures. We can contact your insurance company for a pre-determination to verify coverage and receive an estimate of any charges you may incur. A pre-determination may take up to four weeks. Call the office to speak to a patient coordinator for assistance. You can also call your insurance company for information.

How do I obtain coverage information from my insurance company?
- Call the Member Services number located on your insurance card. Ask the representative what the benefits are for procedures performed in a specialist office (we can give you the procedure codes).
- Ask if there are any waiting periods or exclusions on your policy for varicose veins.
- Ask if the policy requires a referral from your primary care prior to coming into our office.

Will insurance pay for support/compression hose? We recommend going to one of the compression-stocking suppliers listed on the last page of this brochure. They will give you an estimate and inform you of insurance coverage. Radiofrequency treatments require pantyhose style compression stockings.

Will I need more than one procedure? The severity of your disease determines the number of treatments necessary to alleviate your symptoms or improve a cosmetic look. A combination of any treatments and multiple procedures are possible.

Will I need anesthesia? We do not use general or conscious sedation in our office. We administer a local anesthetic in the office.

Will I be able to drive after my procedures? For sclerotherapy/injections and dermal laser, you may drive to and from the office. Patients having radiofrequency ablation and/or miniphlebectomy should not drive the day of their procedure. Please arrange for a driver to take you to and from the office.

When will I see an improvement in my symptoms? Most patients report a noticeable improvement of their symptoms within one to two weeks following the procedure. You will have a return visit in 6-8 weeks after your procedure to evaluate effectiveness. Additional treatments are scheduled at that time if necessary.
Radiofrequency Treatment Schedule

Greater Saphenous Vein; Lesser Saphenous Vein; Perforator Vein

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Return Appointment: Date: ___________________________ Time: ____________

Call our office to speak to a nurse if you are on blood thinners
Continue your aspirin as usual unless otherwise directed by your physician

Radiofrequency Pre-Procedure Instructions

- Bring your compression stockings with you to all of your procedures
- Do not wear lotion or moisturizers on your legs
- You may bring a headset
- You will need a driver to and from your appointment
- You can plan on your treatment taking approximately one hour
- Arrive 10-15 minutes prior to your scheduled appointment
- No one other than the patient and medical staff are allowed in the surgery room

Notes


Additional Resource
www.venefitprocedure.com
Radiofrequency Post Operative Instructions

You may notice
- Bruising and some aching along the treatment pathway
- Clear or pinkish fluid that emerges from the anesthetic sites for the first day or two following treatment. This is normal and will resolve over the next 48 hours.

Notify our office if you experience
- Fever
- Swelling of the leg
- Difficulty walking
- Uncontrolled Pain
- Uncontrolled Bleeding
- Any Questions

Compression Stockings
- Wear compression stockings as prescribed. For the first three days or until your post procedure ultrasound, wear the stockings around the clock (except for showering). Then wear stockings while awake for at least two weeks following the last procedure performed. Remove the clear dressing prior to showering.
- If you feel numbness in the foot/toes or pain in the calf or foot while using stockings, discontinue use and notify our office.

Appointments
- You should have an appointment for a repeat ultrasound of the treated leg in 2-3 days.
- Return for your additional procedures or in 6-8 weeks as scheduled.

Medications and Diet
- You may resume your medications as usual. Tylenol and NSAID’s (Motrin, Advil, Ibuprofen Aleve, and Naprosyn) may be used for discomfort as directed on the package.

Activity
- You may shower in the morning following the procedure, but do NOT submerge (bath or swimming) for three days following treatment.
- During the first 72 hours or until your ultrasound, we encourage walking on a level surface every hour while awake. No sitting or standing for extended periods. Avoid heavy lifting (over 10 pounds) and strenuous activity.
- After your post operative ultrasound, we encourage light aerobic activity; such as walking, elliptical machines at low resistance and low incline, recumbent bicycle, or regular biking on a level, paved surface. Avoid straining, running, jumping, or impact activity. Avoid sit-ups, crunches, squats, leg presses and lunges for 2 weeks following the procedure.
- Do not sit or stand continuously more than 90 minutes. After 90 minutes walk and or elevate the legs for 5-10 minutes.
- Talk to your surgeon for return to work instructions.

Travel
- Avoid prolonged sitting. Every 90 minutes take a break and walk for 5-10 minutes.
- Air travel or long distance driving (over 2 hours) should be avoided for at least 72 hours following the procedure. Always wear compression stockings when flying or long distance driving.
**Miniphlebectomy Treatment Schedule**

Session 1: Date: ________________________________ Time: ________________

Session 2: Date: ________________________________ Time: ________________

Return Appointment: Date: ____________________________ Time: ________________

Call our office to speak to a nurse if you are on blood thinners
Continue your aspirin as usual unless otherwise directed by your physician

**Miniphlebectomy Pre-Procedure Instructions**

- **Bring your compression stockings to all of your procedures**
- Bring a pair of shorts to wear during your treatment
- Do not wear lotion or moisturizers on your legs
- You may bring a headset
- Take your Valium 1 hour before your treatment
- Take your antibiotic the morning of your treatment
- You will need a driver to and from your appointment
- You can plan on your treatment taking approximately one hour
- Arrive 10-15 minutes prior to your scheduled appointment time
- No one other than the patient and medical staff are allowed in the surgery room

If you have any concerns or questions, please contact us at 231-739-9461/888-874-5892

**Additional instructions**

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Miniphlebectomy Post Operative Instructions

- Keep your leg elevated above heart level as much as possible during the first 48 hours.
- A small amount of drainage from your incision or dressing may occur.
- Avoid working for two days; then return to work without restrictions.
- Walking/normal activity can resume after 48 hours. Avoid exercising for one week.
- Wear the compression bandages/stockings continuously for 48 hours. If you have numbness, tingling or pain, you may loosen the compression bandage. If the bandage becomes loose, rewrap. Compression is required to support the vein and decrease swelling.
- You may remove your compression bandages/stockings after 48 hours and take a tepid shower. Cover any incision sites that are bleeding with a dressing/band-aid.
- Avoid flying or long distance driving for 72 hours after treatment. Always wear stockings when flying or long distance driving to help prevent blood clots.
- Wait at least two weeks before getting into a bathtub, hot tub, spa, pool or lake.
- Wear your compression stockings when you are up and around for two weeks. (You only have to wear the stocking on the treated leg). After 48 hours, you do not have to wear them while asleep.
- You may resume all of your medications.
- For discomfort, take acetaminophen (Tylenol) or Ibuprofen (Motrin, Advil).
- It is normal to have lumpy or firm nodular areas at your incision due to the body's anti-inflammatory process. These will gradually resolve.
- If you have sutures, you will need an appointment to have them removed within the next four days.

If you have any concerns or questions, please contact us at 231-739-9461/888-874-5892.
Call our office to speak to a nurse if you are on blood thinners
Continue your aspirin as usual unless otherwise directed by your physician

Sclerotherapy Pre-Procedure Instructions

- **Bring your compression stockings to all of your appointments.** Compression hose are worn continuously for 48 hours after treatment then during the day for a minimum of one week post procedure. Compression stockings promote the closing of the injected veins and help to minimize side effects.

- Avoid sunbathing or tanning two weeks before and after your treatment. Prior exposure decreases the visualization of the veins. Post procedure exposure can increase the chance of skin discoloration.

- Bring a pair of shorts to wear during your treatment.

- Do not wear lotion or moisturizers on your legs. You may choose to shave your legs the day prior to the procedure or wait 2-3 days after the procedure. Do not shave your legs the day of procedure. It is not necessary to shave your legs prior to the procedure.

- You may bring a headset to your procedures.

- Arrive 10-15 minutes prior to your scheduled appointment time.

- Procedure rooms are for the patient and medical staff only.

Additional instructions

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Sclerotherapy Post Operative Instructions

• Wear your compression stockings continuously for the first 48 hours. Then wear daily for one week while you are awake.

• Walk, walk and walk.....it helps decrease the size of your veins.

• Walking and elliptical exercise is encouraged any time after treatment.

• Avoid prolonged sitting/standing the day of the procedure.

• Avoid lifting over 15 pounds and high impact exercise (no running, step aerobics). No core training like yoga or pilates for 48 hours after treatment.

• You may shower 48 hours after your treatment using tepid (not hot) water.

• Avoid swimming pools, hot tubs, lakes, and tub baths for 48 hours after the procedure. This can cause veins to dilate further and could disrupt treatment and cause further vein disease.

• Avoid flying or long distance driving for 72 hours after treatment. Always wear stockings when flying or long distance driving to help prevent blood clots.

• Avoid sunbathing or tanning two weeks before and after your treatment.

• You may remove any dressings in 4-6 hours.

• Expect some prickling/tingling of the skin on the first day. You may also have itching or stinging sensation. This should decrease as the day progresses.

If you have any concerns or questions, please contact us at 231-739-9461/888-874-5892
What is Dermal Laser Treatment?
Dermal laser treatment, with or without combination of sclerotherapy is used for reticular, telangiectasia or non-bulging spider veins. Reticular veins are bluish lines or clusters on the surface of the skin. They are smaller than varicose veins, usually located on the back of the leg around the knee area. They may branch into or feed spider veins (telangiectasias) which are small asymptomatic veins that look like red or blue spider webs on the skin surface. Dermal laser uses pulses of light on the trapped blood inside the vein. The light is absorbed and causes the veins to collapse. The veins will change shades from blue and purple to a light red and disappear in two to eight weeks.

Why Dermal Laser
- Dermal laser therapy is non-invasive
- Performed in the office
- No needles or incisions
- Single treatments take 10-15 minutes
- No sedation required
- Return to normal activities within 24 hours
- Requires three or more short treatments
- No bandages
- Optional treatment for patients allergic to sclerotherapy agents
- Excellent treatment for veins too small for sclerotherapy
- May be used in conjunction with sclerotherapy

Pre Treatment Instructions
- Avoid tanning two weeks prior to and after your treatment.
- Wear or bring shorts to your appointment.
- You may bring music (headset).
- No one other than the patient and medical staff are allowed in the surgery room
- We will provide you with special laser glasses to protect your eyes during the treatment.
- When the laser is activated, you will feel a stinging sensation similar to a rubber band snap.

Post Treatment Instructions
- You may experience any of the following:
  - Temporary bruising
  - Itching, or swelling
  - Changes in skin color (either darkening or lightening) in the treated area
  - Avoid tanning. Tanning may cause permanent discoloration of the skin.
  - Wear sunscreen when exposed to ultraviolet light/whenever you are in the sun. Wear compression stockings if directed.
  - It may take two to eight weeks and multiple treatments to see a change in the appearance in your veins.

Additional Resource
http://www.dornier.com/unitedstates/patients/veins/spider-veins1/
Compression Stockings Suppliers

For proper treatment of your veins, you will need compression stockings. Failure to wear your compression stockings as directed may affect the outcome of your procedures. Some insurance companies include compression stockings as a benefit when prescribed and purchased at a pharmacy or durable medical equipment (DME) supplier. We recommend you contact your insurance company for benefits and participating suppliers.

Watkins Pharmacy & Surgical Supply
1391 E. Sherman Blvd
Muskegon, MI 49444
231-739-7158

Airway Oxygen
850 Harvey St
Muskegon, MI 49442
231-767-9825

In-Home Care
1071 S Beacon Blvd
Grand Haven, MI 49417
616-846-0360

West Michigan Pedorthotics /The Shoe Shop
3324 Glade St
Muskegon, MI 49444
Muskegon
231-739-4414

Air Caire Home Medical Equipment - Muskegon
2440 Glade St
Muskegon, MI 49444
231-737-7070
877-247-2414

Air Caire Home Medical Equipment - Fremont
16 E Sheridan St
Fremont MI
231-924-4040
They bill only for Medicaid

Carelinc
5750 W US-10
Ludington, MI.
1-800-280-8889

Wright and Filippis
Grand Rapids
616-531-1340
Molina insurance

Muskegon Surgical Associates, P.C. and the Vein Care Center do not endorse any name brand or suppliers of compression stockings.
Please contact us if you experience

Fever over 101 degrees
Uncontrolled pain
Drainage from your incision
Increasing redness around your incision
Swelling in the surgical leg that does not resolve with adjusting the compression dressing/stocking or elevating the leg above the level of the heart

Bleeding through compression dressing
Chills, shakes, sweating
Rash
Nausea or vomiting

The Vein Care Center and staff at MSA thank you for allowing us to participate in your healthcare.

Muskegon Surgical Associates, P.C.
1316 Mercy Drive
Muskegon, Michigan 49444
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231-739-9461
1-888-874-5892 (Toll Free)
www.msapc.com
www.msa-veincarecenter.com

Disclaimer: The information provided in this brochure not intended to be a substitute for professional medical advice, diagnosis, or treatment. Your physician or other qualified health provider will answer any questions you may have regarding your medical condition and treatment options. Do not disregard professional medical advice or delay seeking treatment because of something you have read in the brochure.