

Disuse Muscle Atrophy is the Culprit to Calf Muscle Pump Failure (CMPF) and Eventually Poor Circulation in the Lower Extremities.

Patients over 50, experience an 8% rate of decline in skeletal muscle mass per decade. This involuntary loss of skeletal muscle mass, strength, and function contributes to disuse muscle atrophy.

Over 60% of patients living with peripheral vascular disease (CVD or PAD) do not participate in daily exercise which leads to disuse muscle atrophy. Over time, CMPF develops and is a key contributor to the onset of venous stasis ulcers, diabetic foot ulcers, chronic edema, and claudication limb pain.

During exercise, each step taken initiates the calf muscle pump to contract causing the venous blood supply to return to the heart. The calf muscle pump delivers 65% of the venous return from the lower extremities to the right atrium of the heart which contributes to the preload and cardiac output in pumping arterial blood flow to the lower extremities, including the feet.



The VeinOPlus Vascular is the perfect therapy device for treating calf muscle pump failure due to disuse muscle atrophy.

- CMPF increases glucose levels and blood viscosity leads to O₂ starvation and DFUs.
- CMPF, along with incompetent valves, leads to venous hypertension, edema, and VSUs.

Therapeutic treatments for DFUs, VSUs, chronic edema, and claudication limb pain should be targeted to the calf muscle pump on a daily basis.



In nanoseconds, the VeinOPlus simultaneously delivers two therapies: 1) TENS stimulates the endorphins which activates the opiate receptors and reduces limb pain; 2) NMES excites the calf muscle fibers causing the calf muscle pump to contract every second or 3,600 times in an hour. Each contraction improves venous outflow to the heart 7 times. At the same time, arterial inflow to the lower extremities is improved 5-7 times without any measurable change in heart rate, blood pressure, or muscle ischemia. VeinOPlus addresses disuse muscle atrophy, treats calf muscle pump failure, and produces positive outcomes.





Insurance requirements (Medicare/Private) for Ordering a VeinOPlus are:

1. Prescription/Rx form (signed written orders).
2. Dx of M62.561 or M62.562 Disuse Muscle Atrophy (must be in your clinical notes)
3. Clinical Notes: (must contain the below two lines)
 - Disuse muscle atrophy developing from a lack of exercise due to _____.
 - Nerve supply is intact with the calf muscle.

Note: Disuse muscle atrophy develops from any number of factors precluding patients from participating in daily cardiovascular exercise. Such factors may include recent surgery, injury, chronic disease, osteoarthritis, musculoskeletal problems, limb/foot pain, and/or ulcerations of the leg or foot.

4. Demographic Sheet
5. Copy of Insurance Card (front and back) is most helpful.

We appreciate the opportunity to serve you and your patients. Should you have any questions or suggestions, please phone 1-800-256-9979.

Thank you!

VeinOPlus addresses the top causes of non-healing Diabetic Foot Ulcers and Prevention!

1. Improving blood flow (perfusion) to the feet is key in prevention and accelerating healing.
2. Reducing blood sugar levels prevents stiffening, narrowing, and restriction of blood flow in arteries.
3. Increasing blood flow to the feet along with controlling blood sugar levels helps prevent nerve damage.