

Your calves are a pump

Big Medicine. Simple Words.

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You already know the pump in your chest. You have a helper pump in your calves. Each step squeezes the veins in your lower legs and helps send blood up toward your heart. Think of a second heart in the calf. Think of a hand on a garden hose.

Sit still, and that squeeze stops. Blood can sit in the low pipes, the way water sits in a low section of plumbing. This is not a hidden secret. It is how the pipes work.

What we know (plumbing)

- Veins bring blood back to the heart. In the legs, that trip is uphill when you stand.
- Tiny valves act like one-way gates so blood does not slide back to your feet.
- Calf muscles squeeze those veins when you walk. Mayo Clinic: muscles in the lower legs tighten to act as pumps. American Venous Forum: the calf muscles acting as a pump help send blood toward the heart.
- Long sitting **or** long standing can stress this system. Movement is the difference.

What a study linked (not a promise)

Mayo vascular-lab work **associated** a weaker measured calf pump with worse vein-disease class and with active or prior ulcers in people who already had that lab test (Vascular Medicine, DOI 10.1177/1358863X241311254). That does not prove walking heals an ulcer. A 2024 Mayo Clinic Proceedings paper (PMID 38661596) **associated** a weaker calf-pump ejection fraction with higher death rates in people who already had that test.

That is a **link**. It is **not** proof that walking today prevents death. Do not change medicines because of a paper.

What you can do today

If *your* clinician has not told you otherwise:

- **Walk a little.** Stand up on a long sit. CDC: during long travel (more than 4 hours), walk every 1–2 hours if you can.
- **Point and flex your ankles.** Heels up with toes down. Toes up with heels down. Squeeze and release the calf. (CDC; Mayo Clinic)
- **Write down swelling.** One leg or both? Morning or night? Better with feet up? Bring the note to your clinician. Other illnesses can look like vein swelling.

Do **not** start aspirin for a trip on your own. CDC says aspirin is not recommended to prevent travel clots. If you already take a blood thinner, keep following *your* doctor.

Call 911

Sudden shortness of breath. Chest pain worse with a deep breath or cough. Coughing up blood. Fainting or collapse.

Don't wait. Don't drive yourself.

One suddenly swollen, painful, warm, or red leg: contact a clinician promptly. CDC: about half of deep-vein clots have no symptoms — when signs show up, take them seriously. A clot in a leg vein does not cause a heart

attack or stroke; the feared complication is a clot in the lung.

Short glossary / Glosario corto

English	Español (palabras simples)
Calf pump / “second heart” in the calf	Bomba de la pantorrilla (el músculo aprieta las venas)
Vein	Vena (trae sangre de vuelta al corazón)
Valve	Válvula (puerta de un solo sentido)
Swelling / edema	Hinchazón
Varicose veins	Várices
DVT (deep vein thrombosis)	Coágulo en una vena profunda
PE (pulmonary embolism)	Coágulo que viaja al pulmón — emergencia
Venous ulcer	Úlcera venosa (herida lenta, a menudo cerca del tobillo)
CEAP	Escala clínica de enfermedad venosa (C0 a C6)
Compression stocking	Media de compresión (el tipo lo decide su clínico)
Elevation	Elevar las piernas
Association (not proof)	Asociación (un enlace en un estudio, no una promesa)

Education only. This handout is not medical advice, not a diagnosis, and not a substitute for your own clinician. Do not start, stop, or change medicines because of this page.

Sources opened 2026-08-23 include Mayo Clinic; American Venous Forum; MedlinePlus/NIH; CDC; NHLBI/NIH; NCBI StatPearls; Mayo Clin Proc. 2024 PMID 38661596; Vasc Med DOI 10.1177/1358863X241311254. Details: package file 00-sources.md.

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