

# Residual Limb Volume Management for Prosthetic Users



As a new amputee, your limb will experience many significant changes throughout the day and over time. The amount of daily change is greater if you have related health diagnoses, like diabetes and vascular disease.

If you are retaining large amounts of fluid on your body, it is important to talk to your physician. Excess fluid can be indicative of additional health complications.

The below provides prosthetic users with healthy tips for residual limb volume management.

**Shrinkers and compression** – Shrinkers and compression should be worn anytime you are not wearing your prosthesis. Your prosthetic liner is considered a form of compression. Liners should be donned one-to-two hours before the prosthesis. Generally, your limb is at the biggest volume when you wake up in the morning and shrinks as you walk throughout the day.

Your prosthesis is also a form of compression because it will prevent your limb from swelling. If you take your prosthesis off several times per day and struggle getting it back on each time, try extending your wearing time or keeping your liner on.

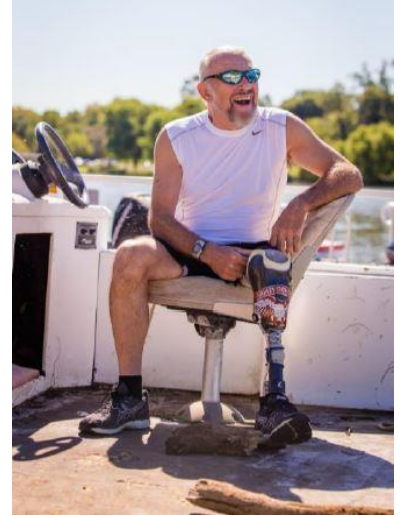
**Prosthetic socks** – As a new amputee, your limb will change throughout the day and it is best to always bring socks with you. Socks are available in different thicknesses (1, 3, and 5 ply) and may be layered to achieve the proper fit.

Don prosthesis according to instructions and assess how the prosthesis feels. Socket should feel snug and supportive, but not painful. If socks are necessary, add socks one at a time.

**Note:** If you have a pin lock, be careful when adding socks. If the socks do not clear the pin, the pin can become jammed in the prosthesis. Call your prosthetist if your pin lock becomes jammed.

## Signs you may need to add socks:

- Feels like you are 'too deep' inside socket
- Increased pressure under kneecap
- No resistance is felt when donning prosthesis



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- Increased pressure on bottom end of bone or limb
- Limb feels as if it is moving in socket
- Socket rotates on limb and/or moves away from the body when walking

## Signs you may need to remove socks:

- Trouble engaging into locking mechanism or getting to bottom of socket
- Applying excessive amount of pressure or 'jamming' limb into socket
- Hardness or purplish color at end of limb

**Half socks** – Half socks are applicable to below knee amputees. The bottom of your limb changes at a more rapid rate than the boney area around the knee. Sometimes it is only necessary to wear a short sock that stops before the knee. These half socks can be layered with full socks. If your prosthesis feels too tight at the knee, but loose at the bottom, you may need a half sock.

**Compliance** – Have you been taking your medications? Have you been wearing your shrinkers? All the instructions, supplies and prescriptions provided to you by your health care practitioners impact your limb volume and overall health.

**Weight** – A significant weight gain or loss will affect the fit and function of your prosthesis. Maintaining a healthy weight consistently will help to preserve the fit of the prosthesis. A change of 15-20 lbs. or more can warrant replacement of the socket and prosthetic foot.

**Diet** – Foods high in sodium cause water retention. For example, it is common for patients to eat fast food or Chinese food and not be able to fit in their leg the next morning. Monitoring your diet will keep your limb volume consistent.

**Showering** – Showering at night is a good habit to practice. The warm water from a shower can dilate the blood vessels in your limb, causing it to swell. So even if you have worn your shrinker all night, taking a hot shower in the morning can counteract the benefits of the shrinker.

If you can't go without your morning shower, take your shower as early as possible and immediately put your liner on. Make sure you give your limb plenty of time to shrink down before trying to put on the prosthesis.

**For more healthy tips, please contact POSI today.**