

optimus
PROSTHETICS

Patient
Education
Packet

Cincinnati | 4623 Wesley Avenue, Suite B, Norwood, OH 45212 | 513-918-2320
Columbus | 975 Bethel Road, Columbus, OH 43214 | 614-263-5462
Dayton | 8517 N. Dixie Drive Suite 300, Dayton, OH 45414 | 937-454-1900



WHAT MAKES UP A PROSTHESIS?



Liner (seal-in)

Liner (locking)



Liner

The first component of a prosthesis is usually a gel liner. The liner is designed to be soft and stretchy so it can be rolled onto the residual limb and help protect your skin from the rigid socket. For some mature limbs, a liner is not used. The liner also acts as a suspension mechanism for the prosthesis via lock and pin, suction, or vacuum system.

Socket

The socket is the rigid frame that was custom molded to fit your residual limb. The socket is made out a variety of materials such as carbon fiber, nyglass and felt. These materials are laminated together by an acrylic resin that “glues” and hardens the material, making it very durable yet lightweight. Often, a thin flexible inner socket is also used for comfort.



Knee

The knee is designed to bend during walking, allowing your prosthetic foot to clear the floor when you take a step. Each knee has various features to help mimic normal knee movement and help you walk with a smooth gait.

Foot

The prosthetic foot is designed to maximize energy efficiency and stability when walking.

Components and Adapters

Various other components help connect the prosthesis together. An aluminum or carbon fiber tube called a pylon stands between the socket and the foot allowing for height adjustments when needed. Other connecting parts and adapters are critical for the alignment of the prosthesis.

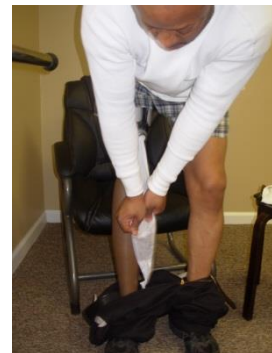


TRANSFEMORAL (AK) STRAIGHT SUCTION

The suspension technique used to hold your prosthesis on is called straight suction (or skin fit). Suction is created between your skin and the socket wall to suspend the prosthesis.

DONNING

1. Roll the pull-on sleeve onto your limb.
2. Remove the valve from the socket. Pass the tail end of the pull-in sleeve through the socket so that it exits out of the valve hole at the bottom of the socket.
3. Step into the socket and, while putting weight through the prosthesis, pull the tail end of the pull-in sleeve through the hole. Keep pulling on the sleeve until it is completely pulled out.
4. With your weight in the socket, check to see that your limb has reached the bottom of the socket. Your skin should 'pooch' out of the valve hole. If you do not have total contact within the socket, try pulling in again.
5. Screw the valve back into the opening at the bottom of the prosthesis.
6. To take off your prosthesis, remove the valve and push the prosthesis off your limb.



HELPFUL TIP

You will need to steadily push down into the socket as you pull yourself in. If you are unable to pull the sleeve out, decrease the amount of weight you are putting through the prosthesis until it becomes easier, and then slowly increase pressure as you pull in.



WEAR SCHEDULE

INITIAL WEAR SCHEDULE

Your limb needs time to adjust to wearing the prosthesis. ***Do NOT wear your prosthesis all day the first day, or even the first week.*** Unless otherwise directed by your prosthetist, follow these general wearing guidelines. Discontinue use if blistering or sores develop and contact your prosthetist for an adjustment.

First Week.....1-2 hours in AM, 1-2 hours in PM

Second Week.....4-8 hours a day (gradually increasing by 30 minutes per day)

Third Week.....10-12 hours a day, or as tolerated

Additional Notes



IS MY SOCKET TOO LARGE?

Warning Signs:

- Pressure on distal femur
- Feeling of walking on the end of your limb
- Gapping between sides of socket
- Discomfort/pinching in the groin area
- Feeling of movement or instability within the socket
- Your socket spins or your limb or your foot rotates while walking
- Height feels short on prosthetic side/sudden onset of back pain



IS MY SOCKET TOO SMALL?

Warning Signs:

- Gapping between end of limb and bottom of socket
- Excessive difficulty putting on your prosthesis
- Feeling of strangulation or numbness in your limb
- Discomfort/pinching in the groin area
- Firm, red skin and/or blisters at the end of your limb
- Height feels tall on prosthetic side/sudden onset of back pain



SKIN CARE

Unfortunately, sores and skin irritation are not uncommon among amputees. Always check your skin before and after prosthetic use and follow these guidelines to take care of your skin.

DAILY SKIN CARE

- ❑ Every day, or more often if necessary, wash your residual limb with a mild, antibacterial soap and lukewarm water. Rinse thoroughly with clean water to remove all soapy residue.

- ❑ Dry your skin by patting it with a towel. Be sure your residual limb is completely dry before putting on your prosthesis. Allowing 15 minutes of air-drying before applying your prosthesis should ensure that the skin is thoroughly dry.

- ❑ Consult your prosthetist and/or physician before using any creams or moisturizing lotions. Vaseline or petroleum-based lotions may degrade certain liner types. Only use softening lotions when your skin is at risk of cracking or peeling. If a moisturizing lotion is needed, it is best to apply it at night to allow it to soak into your skin. Do not apply lotions to any open areas on your residual limb.

- ❑ If needed, applying an antiperspirant to your residual limb can help control perspiration beneath the liner. Do not apply antiperspirant to any open areas on your residual limb. Consult your prosthetist for a list of antiperspirant recommendations.

- ❑ Gentle massage and light tapping of your residual limb will help desensitize the limb and prepare it for your prosthesis. This is especially important for new amputees. You can increase pressure as your limb heals, but do not be overly aggressive. Consult your prosthetist or physical therapist with any questions.



SKIN CARE

INSPECTION OF YOUR RESIDUAL LIMB

- ❑ Regular inspection of your residual limb using a long-handled mirror will help you identify skin problems early.
- ❑ Initially, inspections should be done whenever you remove your prosthesis. Later on, most amputees find daily inspection sufficient for the early identification of skin problems.
- ❑ Inspect all areas of your residual limb. Remember to inspect the back of your residual limb, the back of your knee, and all skin creases and bony areas.
- ❑ Look for any signs of skin irritation, blisters, or red marks that do not fade within 15 minutes of removing your prosthesis. Report any unusual skin problems to a member of your rehabilitation team and contact your prosthetist for an adjustment.



THINGS TO AVOID

- ❑ Do not use alcohol-based products on your residual limb – they dry out the skin and can contribute to cracking or peeling.
- ❑ Do not shave your residual limb – pressure from the prosthetic socket on stubble can cause the hair to grow inward, become painful, and in the worst cases, become infected. Never use chemical hair removers on your residual limb.
- ❑ Avoid prolonged soaking in warm bathtubs or hot tubs because this may cause your residual limb to swell.



DAILY FOOT CARE

For lower-extremity amputees, it is important to maintain the health of your sound foot. This is especially important if you have diabetes, decreased circulation, or neuropathy (poor sensation) in your lower extremities.



YOUR DAILY ROUTINE SHOULD INCLUDE THE FOLLOWING:

Wash and dry your foot properly. Use a mild soap, rinse thoroughly, and dry your skin by blotting or patting, making sure to dry between your toes.



Inspect your foot daily. Check for blisters, cuts and cracking, pressure areas, redness, irritation, skin breakdown, pain, or edema (swelling).



Protect your foot from injury. Wear shoes or slippers at all times, and check your shoes every time you put them on for tears, wrinkles, rough edges, or sharp objects.



Contact your physician or prosthetist with any concerns.



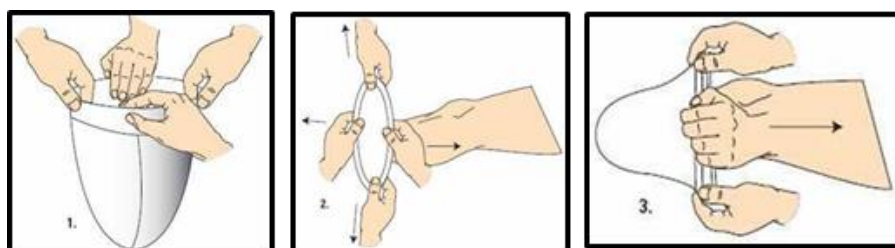


SHRINKER USE

Shrinkers are designed to help control edema (swelling) within your residual limb by applying compression to your limb. The compression helps push the fluid within your leg away from your residual limb. Until the volume of your residual limb has stabilized, you should wear your shrinker any time you are not wearing your prosthesis (including at night).



HOW TO PUT ON A SHRINKER



1. Ensure the shrinker is right-side out (silicone beads at edge are on inside of shrinker).
2. If another person is available, pull on opposite sides to ease the shrinker over your residual limb. If donning alone, pull on either side of the shrinker and ease over your residual limb.
3. Pull the shrinker up over your limb and smooth out all wrinkles.

FAQs

What if my shrinker slides off?

Shrinkers will have a tendency to do this, especially at night as you move around while you sleep. Simply pull the shrinker back up. You may contact your prosthetist for a smaller size if the shrinker is excessively large.

What if I can't fit into my leg?

Often, if you neglect to wear your shrinker, especially at night, your limb will swell up and make it difficult for you to fit into your prosthesis. Put on the shrinker to apply compression to your limb for several minutes, then try putting your prosthesis back on.



IMPORTANT POINTS

When used properly, your prosthesis can help you walk and live more independently. Follow these important points to ensure your success:

- ❑ Catch any issues early. Contact your prosthetist at the first sign of problems.
- ❑ Know your limb — be able to recognize when something unusual occurs (red spots, discoloration, tough skin, etc). While mild redness is normal after removing your prosthesis, deep redness or redness that doesn't subside after 15-20 minutes should be addressed by your prosthetist.
- ❑ While wearing the prosthesis, your skin may experience adverse effects like blisters, rashes, sores, etc. When this occurs, immediately remove the prosthesis and contact your prosthetist.
- ❑ Report any malfunctions, failures, or needed repairs to your prosthetist immediately.
- ❑ If there is a significant change to your health condition or weight loss or gain of more than 10 lbs, contact your prosthetist.
- ❑ Repairs on the prosthesis are under warranty for 3 months from the date of delivery. Individual components may have different warranties. Ask your prosthetist for details.
- ❑ Follow up appointments are important and will occur frequently after initially receiving your prosthesis. Regularly scheduled follow up appointments are then suggested every 3-6 months to monitor your progress. It is important to keep these appointments, as they will allow your prosthetist to ensure you sustain maximum comfort in your prosthesis.



GOING ON VACATION

Be prepared! Here is a quick checklist of some things you may want to remember:

- ANTIBACTERIAL CREAM** – You may be walking more and, as a result, may develop sores from the increased activity. Antibacterial cream will help keep any sores clean.
- DUCT TAPE** – To temporarily hold together a broken strap, belt, or other part of your prosthesis.
- SET OF HEX WRENCHES AND LOCTITE** – To tighten any bolts that may come loose (most common is 4, 5, and 6 mm).
- PLASTIC BAGS** – To keep your prosthesis dry when there is a threat of it getting wet.
- PROSTHETIC SOCKS** – To adjust for changes in volume on the go; clean socks are always nice to have in hot weather or after times of increased activity.
- SPARE LINER** – In case your liner gets damaged or lost.
- SPARE SUCTION VALVE** – In case suspension is lost or your valve is not working properly (not applicable to all prostheses – contact your prosthetist if you are unsure).
- PHONE NUMBER OF YOUR PROSTHETIST** – In case of an emergency.
- CHARGER** – If your prosthesis requires it to charge your vacuum pump, microprocessor knee or foot. Be sure to bring the appropriate adapter if travelling out of the US.

NOTE: If you will be on vacation for an extended period of time, ask your prosthetist for recommendations of a local prosthetic facility in case you need adjustments or repairs.