



Gel Liners

General Description:

A gel liner is an interface that goes directly against the residual limb. A gel liner can provide cushioning, provide even pressure distribution, and reduce friction. The gel liner can also provide suspension (the way the prosthesis remains attached to the limb). There are many different styles of gel liners available that can be used with various types of prosthetic sockets. Gel liners can be used with above knee, below knee, and upper extremity amputations.

Some gel liner materials are silicone, urethane, or a mineral-based material. These substances are known to be bio-inert, which means that they rarely react with skin. Liners vary in thickness and stiffness and usually have some type of fabric on one side.

How They Work:

In thermoplastic elastomer and urethane gel liners, the gel flows from areas of high pressure to areas of lower pressure. When there is pressure within the prosthetic socket, the gel moves away from the pressure.

In a silicone gel liner, the liner distributes pressure along the entire limb, effectively reducing the pressure felt in any one specific spot. The gel also helps to reduce friction against the skin that may occur while walking.

Gel liners used to suspend the prosthesis will have a pin or a strap attached to the bottom that fastens to the prosthetic socket with a clip or locking mechanism.

Application:

Unless otherwise specified by your prosthetist, all liners are applied in a similar manner.

1. Turn the liner inside out. Make sure the liner is clean and dry and has no substance on it that may irritate the skin.
2. Make sure a good portion of the bottom end of the liner is exposed and place it against the limb. A good rule of is to “don the liner like a plate, not a bowl”. With light pressure, roll the liner up and over the limb. Make sure no air is trapped in the liner. If there is fabric on the outside of the liner, be sure not to tear it with fingernails or jewelry.
3. If there is a pin at the end of the liner, be sure to align it properly.



Care and Maintenance:

Since some liners tend to absorb bodily odors and perspiration, the wearer must keep the liners clean. Proper hygienic protocol will extend the life of the liner and will minimize the chance of skin irritation.

1. Check the liner daily for signs of excessive wear or damage.
2. Use a mild no-allergenic soap and warm water to clean the liners. Do not use bleach, soaps with perfume, lotions or deodorants. Once the liner is clean, blot it dry with a towel and hang to dry overnight.
3. Be sure to return the liner to its normal position as soon as possible after cleaning. Do not store the liner inside out.
4. Store the liner away from direct heat.
5. Never expose the liner to glass, carbon fibers, chemicals or any foreign objects as they can become embedded in the liner and irritate the skin. If you suspect the liner has become damaged, contact your prosthetist to schedule an appointment to correct the problem.

If you have questions or concerns, please contact:

Arise Orthotics & Prosthetics, Inc.
Blaine Medical Center
11855 Ulysses St. NE, Suite 230
Blaine, MN 55434
Phone: (763) 755 – 9500
Fax: (763) 755 – 9510