



Jonathan Yanke, CPO (410) 897-1141, (410) 353-7069
USVI: Christopher Borgesen, CPOA (340) 344-9348

Skin and Socket Care: Basic Tips on Care

(Always contact your healthcare provider or prosthetist if sores or blisters erupt)

Note: *Minor skin irritations such as sores and blisters can develop into more serious conditions such as ulcers and serious infections. Always take care of your skin and if blisters and/or sores develop immediately consult your physician.)*

For your prosthetist to work at maximum efficiency, your socket needs to fit your residual limb intimately. This is called a “total contact” socket, and fabricating this socket requires the skills of a prosthetist. Thought sockets are usually made of flexible materials, often they are limited in their ability to flex and change shape while maintaining proper support. If major changes occur to the shape of the residual limb, such as those changes that develop over time, the socket has to change its shape as well. If changes to the socket are not made to accommodate the changes to the residual limb friction and increased pressure will occur which will lead to sores, blisters and even serious ulcers and infections.

Comfort in a prosthetic socket depends on the following:

- **Maintaining a good fit**
- **Correct alignment**
- **Skin care**

Fit and alignment are the responsibility of your prosthetist; however, he cannot help you unless you tell him when something is wrong. The first rule for a proper fit is “communication.”

Skin care is the responsibility of the individual. There are a few basic rules, the first of which is cleanliness. Please remember that the residual limb is encased in a completely, or partially, airtight socket, which does not breathe or allow sweat to evaporate. Sweat is acidic and salty and, when allowed to dry, forms tiny crystals on your skin. If sweat is left on the skin and socket, bacteria can grow, and if the skin is broken, infections may occur.

To avoid skin problems, follow these steps:

- Every day, or more often if necessary, wash the residual limb with a mild antibacterial soap and rinse well.
- Every day, wash everything in contact with your skin with a mild antibacterial soap and rinse well. This includes socks, nylon sheaths, silicon sockets, gel inserts and flexible or hard sockets. Please note any manufacturer's instructions for cleaning.
- Do not shave the residual limb. Shaving can cause ingrown hairs, and can often lead to infected hair follicles.
- Only use softening creams when your skin is at risk of cracking or peeling.
- Do not use alcohol-based products on your residual limb. Alcohol will dry out the skin and can cause cracking or peeling which can become infected.
- If you must cover an abrasion, use the thinnest dressing possible. If the abrasion was caused by pressure, adding a thick dressing will only increase the pressure and thus make the condition worse.
- Do not add soft materials such as wool to "pad" a sore spot. This will only add more pressure and make the condition worse.
- If you develop a sore spot allow the residual limb to "breathe." Try not to wear the prosthesis until the sore area is healed.
- Be aware of how your socket fits. If you notice changes to the fit, contact your prosthetist immediately.
- Try to maintain the same body weight. A weight gain or loss will change the size and shape of the residual limb and thus affect the fit of the socket. If you are trying to lose weight keep in contact with your prosthetist.

If a problem does occur, it usually falls into one of the following categories:

- **Rash**
- **Blister**
- **Ulcer**
- **Infection, local or disseminated**
- **Verrucous (wart like) hyperplasia**

First visit your prosthetist. The problem can usually be solved with a prosthetic adjustment. If you have an ulcer or infection, or if you have diabetes or circulatory disease and have anything more than a mild rash, consult your physician immediately.

Rashes:

A rash can be caused by:

- **An allergic reaction, often to your own sweat, or a fungus, similar to athlete's foot. It can also occur by an allergic reaction to the liner that contacts your skin.**

To avoid rashes:

- Wash and rinse the residual limb and liner every day.
- Lightly dust the residual limb with a medicated talc powder such as Gold Bond at night, and if not contraindicated by the manufacture of your liner, before donning your liner. Some people prefer Ammens because it does not contain talc.
- Use a light film of diaper rash cream such as Balmex at night.

To treat rashes:

- Use an antihistamine lotion, such as Benadryl, which will usually take care of the rash if it is caused by an allergic reaction.
- If the rash is not treated soon enough you may want to try over the counter cortisone cream.
- Use a commercially available athlete's foot treatment such as Tinactin.
- If the rash does not respond within 24- hours after applying any of the above treatments seek medical help.

Blisters:

- A blister can be caused by abnormal pressure or by shearing of the skin against a “tacky” liner.

To avoid blisters:

- Maintain a good fit.
- Visit your prosthetist regularly to maintain a good fit.
- Avoid weight gains or losses.
- Blisters can be avoided by using a “paint-on” type film dressing such as New Skin or MedLogic’s LiquiShield which is designed to help prevent skin breakdown.

To treat blisters:

- A surface blister should be kept intact. If it opens, keep it clean and covered with a thin layer of antibiotic ointment.

To avoid blisters:

- Maintain a good fit.
- Add or remove a sock to maintain a good fit as conditions warrant.
- Blisters can be avoided by using a commercially available “paint-on” film dressing, such as MedLogic’s LiquidShield, designed to help prevent skin breakdown.

To treat blisters:

NOTE: Persons with diabetes or circulatory disease should always consult their physician.

- A surface blister should be left intact if possible. If the blister opens, keep it clean and covered with a thin layer of antibiotic ointment.
- A line of itchy blisters sometimes appear around the edge of, or inside of, silicone liners, especially in hot weather. A little mineral oil or baby oil around and under the edge of the liner prevents this from occurring. Treat the blisters as described above.

- Blisters that occur with above-knee sockets can sometimes be covered with a thin see-through dressing such as LiquidShield.
- Ulcers and local disseminated infections should all be treated by your physician; however, the fit of your prosthesis should always be checked. If the cause of the pressure is removed, the problem will often be resolved without the need for aggressive measures.

Verrucous Hyperplasia:

This is an itchy, red, raised, circular area on the distal end of a residual limb, caused by suction being applied to the end of the limb. This condition frequently occurs when the socket is too tight and the limb does not make total contact with the bottom of the socket.

To prevent verrucous hyperplasia:

- Maintain a good “TOTAL CONTACT” socket fit.

To treat verrucous hyperplasia:

- Remove the source.

General Tips:

Excessive sweating can be removed by using a strong antiperspirant gel on the residual limb. Apply every night until the sweating is reduced, then as often as necessary to control sweating. Do not use this if there are any breaks in the skin integrity. A stronger preparation, Dri-sol, is available by prescription.

General Helpful Hints:

- When any irritation of the residual limb occurs immediately seek the advice of your prosthetist. If the irritation becomes worse or becomes infected, immediately seek the help of your physician.
- If you suffer from vascular disease of diabetes, always take every wound, blister, boil or irritation seriously. Seek medical care immediately.
- The longer your residual limb is irritated the bigger the problem will become. At the first signs of irritation seek care.

- If you develop an area of irritation that becomes worse, or if you develop an area that becomes infection, develops a blister or boil, do not wear your prosthesis. Allow the residual limb time to heal before using your prosthesis.
- If you experience any pain when wearing your prosthesis seek the care of your prosthetist immediately.
- Never wait for the problem to go away. Problems will only get worse and increase the healing time.
- Always make sure that your prosthesis fits properly. An improper fit will lead to irritation and possibly more serious complications.
- If problems with the fit of your prosthesis occur, see our prosthetist immediately. If you do not experience any problems with the fit of your prosthesis you should visit your prosthetist regularly (at least every six months) to ensure proper fit and function.
- Clean the liner every day, at a minimum, to avoid irritation from sweat and the possible spread of infection. Use an antibacterial soap to clean the liner and follow with the application of rubbing alcohol. Allow the liner to fully air dry before donning it.
- Wash the prosthetic sock after every use (daily). This will prevent residual limb irritation as well as the spread of infection.
- Do not use products that a supposed to toughen the skin of the residual limb. Allow the skin to toughen on its own. If problems occur contact your prosthetist and/or physician.
- Talk to your prosthetist about proper shoe style with regards to your prosthesis. Shoes can change the mechanics of the prosthetic fit and can lead to irritation and eventual complications.
- Home remedies should be avoided without consulting your prosthetist and/or physician.
- Non-professional advice about your prosthesis, its fit, function, daily care, and treatment of complications should be avoided or at least talked about with your prosthetist/physician.
- If any problems occur remember: **“When in doubt, have it checked out!”**