

# Skin Care for Amputees

Helen Connor

*Whether you are a new amputee or have been an amputee for years, skin care is always important. With the summer season upon us skin care and hygiene becomes a higher priority.*

Whilst you are wearing your prosthesis the residual limb is confined in an airless socket, where heat accumulates and perspiration is trapped, creating a potential environment for bacterial or fungal growth. The residual limb is not designed for weight bearing so remember just wearing a prosthetic socket exposes the skin to potential pressures and friction. To try to prevent skin conditions that compromise the use of your prosthesis appropriate skin care should be an essential part of your daily hygiene regime. Not being an amputee I can only relate my recent experiences with hiking boots.....checking my feet at regular intervals, keeping the skin dry by changing the damp socks early and relieving vulnerable bony prominences or pressure sensitive areas, certainly helped to prevent blisters..... always good on a 4 day hike in the middle of nowhere!!

If you 'Google' skin care on the computer, you get a vast amount of advice but thankfully the majority contains the same key messages.

I could find no studies that have investigated prevention of skin problems in lower limb amputees, and only one paper discussed the types and incidence of skin problems that presented to a Canadian clinic. Over a 6 year period a total of 528 skin problems were documented in 337 residual limbs. The five most common problems were ulcers, irritations, cysts, calluses and verrucous hyperplasia (excessive skin cell production that results in thickened skin with 'wart' papules.) This accounted for 80% of the skin disorders.

The skin is our first line defense mechanism against the invasion of infection and disease. It is comprised of several layers and is constantly regenerating. It has sweat glands and hair follicles which again can be sites of irritation. For those involved with high level exercise/ activity you will be well aware of the importance of skin care and stump hygiene to get you to the finish line.

What are the most common skin disorders?

- General irritation/ rashes and abrasions
- Contact dermatitis- amputees can develop allergies to cleaning agents, skin products or prosthetic materials
- Oedema/ skin swelling- many amputees will experience fluctuations in their limb volume, for some this means they need to continue to wear compressive garments when they are not wearing their prosthesis
- Cysts- can result from constant 'rubbing' and may start as small bumps or nodules
- Folliculitis- Bacterial infection/inflammation at the base of the hair follicle

- Adherent scar tissue- from slow wound healing or repeated skin breakdown, can be more susceptible to tension and breakdown
- Ulcers resulting from bacterial infection or poor circulation.

What can contribute to skin disorders?

- Direct trauma/ pressure
- Friction
- Loss of distal contact/ altered fit -e.g. blisters or in chronic situations verrucous hyperplasia.
- Heat and perspiration

(Amputees have a reduced skin surface area to dissipate the heat and they tend to generate increased body temperature with most activities since more energy is required, leading to increased perspiration)

- Being a diabetic is going to make you more vulnerable to skin disorders, with reduced or altered nerve sensitivity and circulation to the extremities.

### **Reminders:**

Skin care

- Daily cleansing of the residual limb using a mild, non perfumed soap, preferably at the end of the day. (The heat of the shower can make your limb swell and damp skin in a socket maybe more prone to irritation.)
- This must include a good rinse to remove soapy residues (another potential skin irritant).
- Follow this by drying the skin thoroughly with a clean soft towel.
- Whilst 'moisturizing' is not such a familiar concept to the male population, for amputees it is essential to keep the skin supple and in good condition.
- Use a non perfumed product that is applied at night after you have finished using the limb for the day. Creamy residues can be another source of skin irritation or infection.
- Keep well hydrated, drink plenty of non caffeinated fluids (water is best!) If you are not on a fluid restriction.

### **For diabetics**

- Again, dry cracked and itchy skin can be an entry point for 'bugs' and subsequent infection.
- Keep your blood sugar levels under control, when your 'sugars' are high the body loses fluid and becomes dehydrated ....leading to dry skin.
- For those on dialysis or fluid restrictions, your skin is likely to be even more dry...you may require additional moisturising throughout the day, maybe apply when on dialysis if you remove your limb during this time.

- Diabetics are likely to have altered temperature perception and should therefore avoid hot baths/ showers and always test the temperature prior to entering.

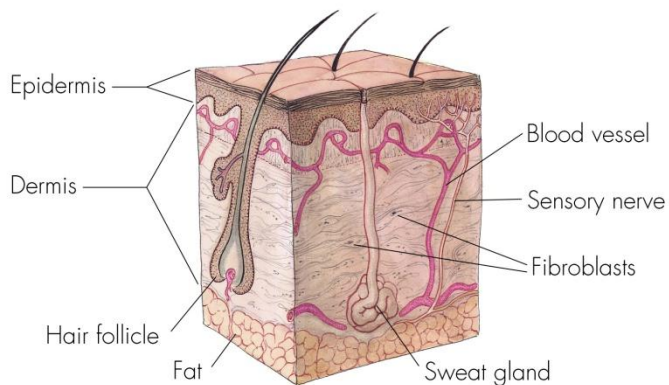
### Care of your socks and socket

- Newer socks do 'wick' away the perspiration but more importantly it is essential to change your socks regularly, even more so during the warmer months.
- Carry a face washer or travel chammy'/ chamois to dry the limb thoroughly before re- donning.
- Carry spare socks in your handbag, backpack, glovebox in the car or start using a 'man bag'!
- Maintain dry socks in contact with your skin where possible.
- At any time socks should be changed at least daily.
- Use mild soap e.g lux or velvet soap to wash the socks/ nylon sheaths and rinse thoroughly.
- Socket care- Remember to clean the liner and socket after removal at night (Maybe when you clean your teeth!!

This seems to be part of the hygiene regime that is commonly missed!)

### Prosthetic liners

- Some prosthetic liners and products require particular attention, if you are unsure check with your prosthetist about what skin products and cleaning/ washing agents should be used. It is even more important not to leave residues on the skin with a lot of these products.
- If excessive perspiration is a problem with the prosthetic liners it may be recommended by your therapists that you try an antiperspirant, discuss this prior to use.



### Other Reminders:

- Always check the skin daily before and after using the prosthesis.
- A quick check is better than a major skin breakdown.
- Skin grafts often have very little sensation so require a few extra checks.
- Shaving is not recommended.....the hair is protective for the skin and there is risk of irritating the base of the hair follicles..... and ingrown hairs.

- If your prosthesis doesn't fit well

or with the impact of years of using a prosthesis, there is potential to develop thickened skin or callous which is more susceptible to breakdown.

- Likewise, when you start getting skin breakdown, the scar tissue will always be more fragile and more susceptible to breakdown than your original skin.

- Early wound management is a must...especially in the diabetic group. Seek professional advice if you have a wound that doesn't heal within 2-3 days.

- Signs of infection include: redness, swelling, warmth, pain, drainage or discharge and maybe accompanied by a rise in body temperature and blood sugar levels. If you develop a skin problem it is recommended to seek a prosthetic review ASAP.

- Where possible stay off the prosthesis until the problem area has healed.

- Otherwise take it easy.....try to minimize use of the prosthesis.

This will definitely assist and accelerate the healing process.

- Sunlight exposed areas should be protected.

- Utilise this good skin care advice to protect your other limbs.

In summary good skin care and a well fitting prosthesis should keep your skin healthy.

*References:*

*Skin Problems in the Amputee clinic: Dudek N et al, American Journal of Physical Medicine & Rehabilitation vol 85 (5): 424-429 May 2006*

*Caring for skin; Prosthetic skin care: ACA in co-operation with the US Army Amputee Patient care program*

*The war Amps rehab*

*Diabetic skin care: Canadian and American diabetic associations*

Helen Connor  
Physiotherapist  
Austin Health



Published 2008

**1300 782 231**