

Prevention of skin issues such as pressure ulcers, edema, blisters, pimples and rashes is very important in ensuring success of your prosthesis or orthosis. There is an increased risk of developing skin issues in people with diabetes and neuropathy (lack of sensation). This guide is for patients and care givers to provide daily skin inspections to avoid these potentially serious issues. This guide covers risks associated with poor circulation, maintenance tips, skin inspections and pressure ulcers.

### **Risks Associated with Poor Circulation**

Daily skin care is very important in order to avoid infections, sores, and irritations especially when there is a lack in blood circulation, feeling and movement. The skin is served by a large number of blood vessels, and adequate circulation is needed to maintain skin health. You can help ensure a healthy blood supply by considering the following suggestions:

- Smoking - Nicotine in cigarettes causes blood vessels to get small (constrict) and prevents blood, oxygen and nutrients from flowing to the body tissues.
- Edema- swelling caused by fluid collecting in the tissues, usually occurs in a part of the body that is not moved frequently and is below the level of the heart (i.e., the feet, legs and hands). Skin over areas of edema becomes thin and pale and injures easily because of poor circulation. Edema can be prevented by elevating your legs and hands frequently, performing regular Range of Motion (ROM) exercises and wearing compressive stockings. A massage technique similar to squeezing a tube of toothpaste can be used to work the fluids out of the fingers and feet. After a couple of minutes massage the swelling should begin to subside.
- Anemia- a decrease in red blood cells. Oxygen is essential for skin health, and is carried by red blood cells. A decrease in their number means less oxygen gets to the skin, which means that skin cells may become unhealthy or even die. Anemia should be evaluated and treated by your health care provider.
- Vascular Disease- a narrowing of the blood

vessels, can be caused by diabetes, smoking, high blood pressure or elevated cholesterol. The result is decreased blood flow to the skin. Work closely with your health care provider to manage conditions that can lead to vascular disease and cause skin problems.

- Diabetes- Diabetes damages the blood vessels and nerves. Wounds and sores can become infected easier and heal at a much slower rate. If you have been diagnosed with diabetes follow your insulin routine carefully. You will also want to perform skin inspections more closely, paying special attention to any changes in color of the skin.

### **Daily Skin Maintenance Tips**

- Avoid using soaps labeled "antibacterial" or "antimicrobial." These tend to reduce the skin's acidity, which acts as a protection from infection.
- Keep the skin clean and dry. Wash with soap and water daily, then rinse and dry thoroughly.
- Skin folds or creases (as in the groin area and underarms) need washing more frequently. Rashes can easily form in these areas because of increased moisture and warmth. Increasing the air circulation to these areas to help prevent rashes can be accomplished by positioning the arms and legs so the skin surfaces are separated. Rashes can be caused by tapes, soaps, fabrics or other irritants. Total body rashes may result from food or drug allergies. Consult your health care provider for treatment of any rashes you may have.
- Avoid using items that may dry the skin -- for example, harsh soaps or alcohol based products.
- Lubricate dry skin with moisturizing creams or ointments (such as Eucerin or Aquaphor). Use care in applying creams over bony areas, since they may soften the skin and promote skin breakdown.
- Soiled skin can break down easily. Urine and stool have irritants in them and should be cleaned up immediately to prevent weakening and breakdown of the skin surface.
- Avoid using talc powders, as they may support yeast growth. They can also "cake up" and keep

moisture in, causing skin breakdown.

- Calluses may form on your feet and hands. These can be removed by soaking in warm water and towel drying briskly to remove dead skin. You can use moisturizing creams to help soften calluses.
- Finger and toe nails require special care. Soak them and rub gently with a towel to remove dead skin and decrease the chance of hangnails forming. Nails are easier to cut after soaking; be sure to cut them straight across to avoid ingrown nails, and keep them short for safety.

### **Daily Skin Inspection**

Inspecting the skin daily is extremely important as pressure sores and infections could occur very quickly. Skin should be inspected at least once a day. Look for reddened areas, scrapes, cuts, bruises or any kind of discoloration out of the norm.

- The only way to know if your skin is healthy and intact is to look at it regularly. In areas where sensation (feeling) is decreased, skin inspection is essential and should become a habit. Plan it as a part of your daily routine.
- If you are unable to see some parts of your body, use a mirror or teach another person to check your skin for you. Long handled mirrors and other specially designed mirrors are available. Check all of your bony prominences, or areas where the bones protrude slightly below the skin.
- Look for any reddened areas, rashes, cuts, bruises, scrapes, or indentations from seams or elastic binding. Check also for blisters, bumps, insect bites, dry flaky skin or pimples. Check toenails for any redness or pus formation around the end of the nail.
- Whenever you notice a problem, try to figure out its cause and make any changes necessary to prevent further problems. The first step in curing any skin problem is to eliminate the cause.

## **Pressure Ulcers**

If a pressure ulcer develops, it is very important to take immediate action to prevent it from progressing. Below describes the four stages of pressure ulcers to help you determine your best plan of action. For Stage I or II Pressure Ulcers being caused by your orthosis or prosthesis, contact your practitioner to schedule an adjustment. For Stage III and IV, contact your primary health care provider immediately as wound care may be required. If the skin has broken open, there is a risk of infection and immediate treatment should be implemented by a health care professional.

### **Stage 1 Pressure Ulcer**

Any reddened area of intact skin that stays red for more than 20 minutes.

### **Stage II Pressure Ulcer**

Skin loss usually involving the first one or two layers of skin. May look like a skin tear or blister.

### **Stage III Pressure Ulcer**

A deep wound that is through all the skin layers but not quite down to the muscle.

### **Stage IV Pressure Ulcer**

A wound down to the muscle or bone. This is a very serious wound. It could also have a yellow or black discoloration. Seek immediate medical attention.

For questions or concerns regarding skin care with your prosthesis or orthosis, contact your providing practitioner.



# **Skin Inspection and Care Guide**

Contact Your practitioner if you have  
any questions or concerns.

(412) 622-2020 • [www.unionoandp.com](http://www.unionoandp.com)