

Redefining Possible for People with Spinal Cord and Brain Injuries

www.craighospital.org For more information: Craig Hospital Nurse Advice Line 1-800-247-0257

Skin: It's Too Much Pressure!

You've probably heard enough about skin to last a lifetime. It's THE thing that health care professionals hammer on the most. And with good reason – skin breakdown remains one of the leading complications spinal cord injury (SCI) survivors have. It accounts for countless days of missed work, school and fun. It results in costly surgery, and its complications can even end in death. It is a big deal. However, the purpose of this article is to look at skin from another angle. We're going talk about other health issues that increase or decrease your RISK of having skin problems.

Circulation

Even people who do everything right sometimes end up with skin sores. In fact, in any given year, according to researchers, just about one-quarter of all SCI survivors will have a pressure sore. Why? We don't know for sure. However, we are learning that although pressure does cause skin breakdown, other things seem to increase your risk of skin problems, too...

- **Fact one:** Poor circulation is related to more skin problems. If you can't get enough blood, oxygen and nutrients to the skin, it can't stay healthy.
- **Fact two:** Smoking compromises your circulation. Researchers have found that SCI survivors who are heavy smokers have more frequent and more serious pressure sores, and when they do get sores, the healing process is slower. Why? Because smoking gradually narrows blood vessels, allowing less and less blood to get through, until one day you end up with a skin breakdown. What can you do? **Don't smoke!**

Other things can also affect your circulation – and your skin. If you have diabetes, high blood pressure or high cholesterol, pay particular attention to your feet and ankles. They're farthest away from the heart and are likely to be affected first or most. Talk with your doctor or nurse about foot care and shoes.

Swelling or edema – often a side effect of paralysis – also causes skin to be malnourished, and, eventually, to get thinner. Thin skin is more susceptible to injury and breakdown. To help counteract this, elevate your legs a couple of times a day, and your arms, too, if they swell. Try wearing support socks. Follow your doctor's advice, and get the follow-up that he or she suggests.

The content in this document is intended for general informational purposes only and is not a substitute for professional medical advice or treatment for specific medical conditions. No professional relationship is implied or otherwise established by reading this document. You should not use this information to diagnose or treat a health problem or disease without consulting with a qualified healthcare provider. Many of the resources referenced are not affiliated with Craig Hospital. Craig Hospital assumes no liability for any third party material or for any action or inaction taken as a result of any content or any suggestions made in this document and should not be relied upon without independent investigation. The information on this page is a public service provided by Craig Hospital and in no way represents a recommendation or endorsement by Craig Hospital.

Diet & Food

Diet also plays a role in the long-term condition of your skin. Letting yourself get too thin is bad, because you lose the "padding" between your bones and your skin. This makes it possible for your skin to break down from even small amounts of pressure. But, getting too heavy is risky, too. Though more weight should mean more padding, it also means more pressure. It makes it harder to shift your weight, do pressure reliefs, and move. And, all that fat siphons off blood that could be nourishing your skin. The foods and nutrients that maintain skin strength and enhance its healing include:

- **Proteins** Foods like lean meats, eggs, dairy foods, and beans and legumes help maintain skin elasticity, and help in wound healing.
- **Carbohydrates** Starches like breads and cereals provide the calories you need for energy and nourishment. Without enough carbohydrates, your body will use proteins instead which will make them unavailable for their wound healing job.
- Zinc Found in foods like fish, red meats, shellfish, whole grains, and beans. Zinc is crucial for skin repair because it helps metabolize carbohydrates, fats and proteins. But, check with your doc before you use zinc supplements it's possible to take too much zinc and cause yourself significant damage.
- Vitamins A and C Vitamin C is found in citrus fruits and many vegetables. Vitamin A is in dark green and orange vegetables, apricots, cantaloupe, and fortified milk. Both of these vitamins increase your skin's strength. It's probably safe to take extra vitamin C in the form of capsules or tablets, but check with your doctor before taking extra Vitamin A: it can be toxic, and overdosing is possible!

Water

Don't forget about fluids: You need lots of water. If you've got a wound or sore, you can *lose* more than a liter of water each day, just as part of the healing process. Drinking 64oz or between 2000-3000ml everyday is a good goal! And, if you're losing fluids from an open sore – or for any other reason – talk to your doctor about how much water you should be drinking.

Beer and caffeine drinks do NOT count! Alcohol and caffeine actually cause you to lose water or become dehydrated! And, it can prevent your body from effectively using the foods and vitamins you eat, causing what seems like a balanced diet to become an *un*balanced one.

Bladder and bowel issues

Wetness softens and weakens the skin. Sitting in wet clothes or on a wet cushion because of leaking urine or wet stools will increase the odds of your skin breaking down. And, even worse, the acid in urine can set off a chemical process that speeds up skin breakdown. If your bowel or bladder program isn't working, get help.

Physical health

Fevers increase your risk for skin breakdown. Fevers change your metabolism, alter skin tolerance, and lower your body's resistance. In addition, fevers shunt your body's disease-fighting resources to areas where they're most needed – which is likely **NOT** to be your skin. So, if you're ill, know that *all* systems of your body can be affected. Bladder infections don't affect only your bladder; ear infections don't affect only your ears. With *any* illness, your skin will be even more at risk than usual, so watch it carefully!

Mental health

Your *mental* health also affects your skin. Obviously, if you're stressed or depressed, you may not pay as close attention to skin care as you should. This puts your skin at risk. But, there's more: researchers are uncovering evidence that stress and depression actually change your body's immune system. Your ability to fight off things like viruses and the flu can be decreased by stress, and the healing process is slowed down. The bottom line: skin health and skin healing *are* affected by how you feel!

Growing older

Even people who do not have spinal cord injuries must deal with aging skin. Over time, everyone's skin gets weaker, thinner, stiffer, and less elastic or able to bounce back. Bumps, injuries, and pressures that at one time had no impact at all may now lead to bruises, discolorations, and breakdowns. At the same time, all those small blood vessels that take oxygen and nutrition to the skin cells also age and degenerate, making them less able to keep the skin nourished.

Does the skin of SCI survivors age faster? Though we can't say yes or no for sure, several things can happen that can make your skin *behave* as if it is much older than it really is: If you have a lot of swelling that you're not treating, your skin may get thinner and take on characteristics of a much older person's skin. Smoking, obesity, or not doing weight shifts can cause circulation to your skin to decrease at an earlier age than might be expected.

Care providers and researchers just don't know enough about what happens over time to make any promises. There are many stories of SCI survivors who have done everything right for many years, and then one day end up with a skin problem anyway. One researcher investigated and interviewed 14 people who fell into this category. All – after more than 25 years with perfect track records – had a serious breakdown. Why?

It's not clear. In some cases, the researcher could make a guess – depression, lifestyle change, illness. But, none of these were clear causes, and for all of the others, there was no good explanation, other than, "things change." Keep in mind that these late skin problems happen both to older people and to younger people who have been injured a long time. It's not too soon to start thinking about aging skin. Don't get sloppy. Never assume you're "in the clear."

Your skin depends on your overall health:

- Illness prevention, proper medical care, good hygiene, good nutrition, and a good attitude all make a difference.
- Smoking isn't healthy; smokers do not have healthy skin.
- What works today may not work tomorrow. Healthy people know that everyone ages even them.

Some parting thoughts

With these points in mind, the odds can be in your favor. If it's true, as researchers say, that 25% of SCI survivors have skin sores each year, then it also must be true that 75% of SCI survivors *don't* have skin sores!

The bottom line: If you want healthy skin, work on being a healthy person.

This is a publication of the RRTC on Aging with Spinal Cord Injury, which is funded by the National Institute on Disability and Rehabilitation Research of the US Department of Education under Grant #H133B30040. The opinions contained in this publication are those of the grantee and do not necessarily reflect those of the US Department of Education.