Craig Hospital
Redefining Possible for People with Spinal Cord and Brain Injuries

Provided as a courtesy of
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Have Fun In The Sun But Protect Your Skin!

Skin Damage

Too much sun can be harmful for the skin. The sun can cause sunburns, wrinkles, freckles, age-spots, changes in skin texture, premature aging, and skin cancer. The best methods of sun protection are shade, avoiding the sun during the middle of the day, sunscreen, sunglasses, protective clothing, and a hat.

Ultraviolet (UV) Light

The sun gives off harmful rays that damage the skin called ultraviolet (UV) light.

- The strength of ultraviolet light is greatest between 10am and 4pm
- Up to 80% of ultraviolet rays pass through clouds – you still need to protect yourself on cloudy days
- Exposure to ultraviolet rays is greatest near the equator and at high altitudes.
- The strength of ultraviolet rays increases 10-12% for every 3000 feet in altitude – Denver, Colorado's altitude is 5280 feet which means UV rays are 21% stronger than at sea level! It has been estimated that Colorado residents face a thirty percent higher risk of skin cancer than other areas in the U.S.
- Snow, water and sand increase ultraviolet exposure by reflecting rays

Sunscreen

There are two types of ultraviolet light: UVA and UVB.

- **UVA rays** cause wrinkles, freckles, age spots, changes in texture, premature aging and skin cancer
- **UVB rays** cause sunburn

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Sunscreen protects the skin by either absorbing, reflecting or scattering ultraviolet rays.

- **Chemical sunscreens** absorb UVA and/or UVB rays. Active ingredients in chemical sunscreens include *Octylcrylene, Avobenzone, Octinoxate, Octisalate, Oxybenzone, Homosalate, 4-MBC, Mexoryl SX and XL, Tinosorb S and M, Uvinul T 150,* and *Uvinul A Plus*
- **Physical sunscreens,** sometimes called sunblock, reflect and scatter both UVA and UVB rays. Examples include Titanium dioxide or Zinc oxide
- **Broad-spectrum sunscreens** are usually a combination of chemical and physical sunscreens
- Sunscreens do not block all ultraviolet rays

Sun Protection A-B-C

- Avoid the sun between 10am and 4pm, which is when the sun's rays are strongest
- Block harmful sun rays with a broad-spectrum sunscreen. Don't forget ears, hands, bald spots, back, neck, or under straps
- Cover up with shade, clothing, hats and sunglasses

Sun Protection Factor (SPF)

SPF refers to the amount of sun protection a sunscreen can offer. This rating only applies to the rays that cause sunburn (UVB).

- The amount of protection a sunscreen gives varies for each person. It depends on skin type, amount of time spent in the sun and the time of day
- A minimum of SPF 15 is recommended for everyday use
- Skin with SPF 15 applied to it will not burn until it has been exposed to 15 times the amount of rays that would normally cause sunburn
- No sunscreen can provide 100% protection from sunburn

Water resistance

There are two approved descriptions:

- **Water resistant:** The sunscreen must maintain its SPF after 40 minutes in the water
- **Very water resistant:** The sunscreen must maintain its SPF after 80 minutes in the water

Application

- Apply sunscreen to dry skin 20 minutes before going into sun
- Apply sunscreen under make up, lotion and bug spray
- Don't forget lips, ears, hands, bald spots, back or neck and areas under straps
- Reapply sunscreen every 2 hours or more often if swimming or sweating, even if the sunscreen says it is water resistant

Sunglasses

Ultraviolet blocking sunglasses help protect the eyes from the sun's rays.

- The label must state that the lenses "Meet ANSI UV Requirements" to be 99% effective
- Sunglasses labeled "cosmetic block" only protect from 70% of ultraviolet rays
- Choosing large frames or wrap around glasses will block rays coming from different angles
- Polarized lenses reduce glare and reduce stress placed on eyes

Protective Clothing

Clothing offers different levels of protection.

- Dark colors are more protective than light colors
- Tightly woven fabric protects the skin better than loose fabrics
- Dry fabric protects the skin better than wet fabric
- Clothing made out of special ultraviolet protective fabrics can offer extra defense from the sun
- Sunscreen should be worn under clothing
- A hat protects the eyes and face
    - A 2-3 inch brim that wraps around the hat provides the greatest amount of sun protection
    - Hats made from tightly woven fabrics shield the most rays

Why do individuals with spinal cord injuries need protection from the sun?

- The skin has decreased sensation
- Medications can make skin more sensitive to sunlight
- Decreased mobility increases the risk for spending more time in the sun
- Inability to change body positions increases the risk for intense sun exposure

- burns can occur without realizing it!

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Protection from Burns

Individuals with spinal cord injuries are unable to identify hot surfaces. Our sun is strong! Aside from damaging skin, it causes wheelchairs that are left outdoors to get hot.

- Cover wheelchairs in blankets or towels when not in use
- Park wheelchairs in shady areas
- Have someone check the surface temperature before transferring to a chair or wheelchair
- Consider using a wheelchair umbrella for shade
- Objects with black, metallic, leather and vinyl surfaces absorb heat making them HOT!

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