

# SUN - Sun Exposure

## SUN-C      COMPLICATIONS

**OUTCOME:** The patient/family will understand the complications associated with excessive sun exposure.

### STANDARDS

1. Explain that common complications associated with excessive sun exposure includes sun burns, skin cancers, and premature aging of the skin.
2. Explain that sunburns before the age of 18 are more likely to cause skin cancers later on in life.
3. Discuss the four ABCD warning signs of malignant melanoma:
  - a. Asymmetry – one-half of the mole or lesion differs from the other half
  - b. Border – the border of the mole or lesion is irregular, scalloped or underlined
  - c. Color – color varies from one area to another within the mole or lesion
  - d. Diameter – the mole or lesion is larger than 6mm across – about the size of a pencil eraser
4. Explain that complications of sun burn may include dehydration, pain, redness, swelling, and some blistering. Secondary infections from sunburns may result from sunburns that blister and peel. Because sun burn often affects a large area, it can also cause headache, fever, and fatigue.

## SUN-DP      DISEASE PROCESS

**OUTCOME:** The patient/family will understand the pathophysiology of overexposure to the sun or other UV radiation/light.

### STANDARDS:

1. Explain that UV, or ultraviolet, rays are the sun's invisible burning rays. The two types of ultraviolet radiation, ultraviolet A (UVA) and ultraviolet B (UVB), have an effect on your skin and can impair your skin's DNA repair system that may contribute to cancer.
2. Explain that UVA rays are a deeper penetrating radiation that contributes to premature aging and wrinkle formation. It causes the leathery, sagging, brown-spotted skin. UVA can also penetrate window glass, including car windows. Tanning beds are a source of high doses of UVA.
3. Explain that UVB rays cause sunburn and have been linked to the development of skin cancer. Window glass filters out UVB rays.

4. Explain that the first step is to determine the degree and the extent of damage to body tissues. Damage from the sun is usually limited to first and second degree burns:
  - a. First-degree burns are those in which only the outer layer of skin (epidermis) is burned. The skin is usually red, with swelling and pain sometimes present. The outer layer of skin hasn't been burned through. Treat a first degree burn as a minor burn unless it involves substantial portions of the hands, feet, face, or other large areas of the body.
  - b. Second-degree burns are when the first layer of skin has been burned through and the second layer of skin (dermis) also is burned. Blisters develop and the skin takes on an intensely reddened, splotchy appearance. Second-degree burns produce severe pain and swelling.

## **SUN-L LITERATURE**

**OUTCOME:** The parent(s) and family will receive literature appropriate to the type and degree of the sunburn.

### **STANDARDS:**

1. Provide literature on first and second-degree burns.
2. Discuss the content of the literature.

## **SUN-LA LIFESTYLE ADAPTATIONS**

**OUTCOME:** The patient will understand the lifestyle adaptations necessary to prevent complications of sunburn.

### **STANDARDS:**

1. Explain that regardless of age and skin pigmentation, all people are at risk for sun damage to their skin and should wear sunscreen. **Refer to SUN-P.**
2. Explain that the UV content of sunlight varies depending on various factors. Emphasize the need to adapt outdoor activities and/or take appropriate protective measures with consideration for these factors. **Refer to SUN-P.**
  - a. Time of day (UV content greatest between 11am and 4 pm)
  - b. Season (UV content greatest May - August)
  - c. Altitude (UV content greatest at higher altitudes)
  - d. Exposure time (longer exposure, higher risk of sunburn)
  - e. Surfaces (snow, sand, and water are highly reflective surfaces)
3. Discuss the importance of setting up a schedule to routinely check the skin for changes. Check your birthday suit on your birthday. If you notice anything changing, growing, or bleeding on your skin, see your doctor.

4. Explain the importance of eliminating the use of alcohol and other drugs when participating in outdoor activities because they can impair judgment and interfere with sound decision-making.

## **SUN-P      PREVENTION**

**OUTCOME:** The patient/family will understand the factors associated with an increased risk of sunburns, how to lower the risk of sunburn, and how to prevent complications.

### **STANDARDS**

1. Explain that consistent use of sunscreen each and every day, year around is the key to preventing sunburn, sun damage, and skin cancer. Emphasize the importance of protecting infants, children, and youth. Apply appropriately:
  - a. Apply liberally before going outside (at least 30 minutes prior) to cover all exposed areas of the body including neck, ears, lips, and exposed scalp.
  - b. Reapply (even if water resistant) every 90 minutes, including on cloudy days and after swimming or sweating.
2. Discuss what to look for when purchasing sunscreen to ensure protection:
  - a. Ensure that the product is a broad spectrum sunscreen offering both UVA and UVB protection.
  - b. Ensure that the minimum level of SPF (Sun Protection Factor) rating purchased is SPF 15. The SPF rating indicates how much longer a person wearing sunscreen can stay in the sun before beginning to burn compared to uncovered skin. For example, SPF 15 means it will take 15 times longer to burn when wearing this sunscreen.
3. Discuss the need to avoid using tanning beds. There is no such thing as a safe tan. Tanning beds aren't safe, and they may cause skin cancer.
4. Explain that if a tan is desired, consider use of one of the many "bronzers" available at cosmetic counters. Emphasize that sunscreen must be used over the "bronzer" because bronzers usually do not contain sunscreens.
5. Discuss additional things that offer sun protection for work or play:
  - a. Wear a broad-brimmed hat
  - b. Wear light-colored clothing that covers exposed skin
  - c. Wear wraparound UVA- and UVB-rated sunglasses
  - d. Limit outdoor activities to the early morning or late afternoon when possible

## **SUN-TX      TREATMENT**

**OUTCOME:** The patient/family will understand the importance of treating the discomforts of sunburn and when to seek appropriate medical care.

**STANDARDS:**

1. Discuss tips for treating sunburn:
  - a. Take a cool bath or shower or apply cool compresses.
  - b. Apply an aloe vera lotion several times a day.
  - c. Leave blisters intact to speed healing and to avoid infection. If they burst, apply an antibacterial ointment on the open areas and cover with a sterile gauze bandage.
  - d. Take a mild over-the-counter analgesic for discomfort.
  - e. Drink plenty of water or other non-caffeinated beverages.
2. Explain that severe sunburn may require and benefit from medical attention. Seek medical attention if the following conditions accompany sunburn:
  - a. Fever over 101°F
  - b. Fluid-filled blisters over half of the affected body part
  - c. Dizziness
  - d. Visual difficulties
  - e. Severe pain
  - f. Infants less than 1 year of age with fever, blisters, pain
3. **Refer to BURN.**