Fun in the Sun

Sun Health
Suntans have often been considered a symbol of good health and looks. In reality, sun exposure causes skin cancer and skin damage, resulting in tough, leathery, wrinkled, and discolored skin.

UV rays
The sun's rays contain radiation that is made up of infrared, visible, and ultra violet (UV) rays. It is the invisible UV rays (UVA and UVB), which affect the skin. The UVB rays are the strongest between the hours of 10 a.m. and 4 p.m. They penetrate the top layer of the skin causing sunburns, and are responsible for premature skin aging and skin cancers. UVA rays are strong all day, and all year long. They penetrate the skin more deeply and aggravate the effects of UVB radiation.

Sun Effects

Tanning - When the skin absorbs UV rays it can burn and/or tan. Tanning is the result of melanin production, a natural sun screening pigment that is produced by your skin. This occurs when the UV rays penetrate through to deeper skin layers, causing melanocytes to produce more melanin. The melanin then moves to the outer layers and becomes visible as a tan. Melanin absorbs some of the UV rays in an attempt to protect the body from UV radiation.

A tan does not prevent sun damage. UV radiation from tanning booths and sunlamps may be less likely to cause sunburn but still cause skin cancer, immune system damage and skin damage. There is no such thing as a safe tan. Therefore, tanning beds are not safe!!

Individuals with a fair or light skin complexion have less ability to make melanin. Thus they have less natural protection and are much more likely to get sun damage and burn quickly.

Skin Aging & Wrinkles
Cumulative sun exposure increases damage to the basic structure of the skin. UVA rays penetrate deeply into the base layer of the skin, damaging components that help keep the skin flexible. As a result the skin sags, wrinkles and looks old. With every burn the skin grows weaker in its ability to avoid such damage.

Skin Cancer - Ultraviolet rays from the sun are the cause of at least 90% of skin cancers.

Common types of skin cancer are basal cell carcinoma, squamous cell carcinoma, and melanoma.

Basal cell carcinoma - usually develops on the face, ears, nose, and around the mouth of fair-skinned individuals. It can start as a red patch or shiny bump that is pink, red, or white. It may be crusty or have an open sore that does not heal, or heals only temporarily. This type of cancer can be cured easily if treated early.
Squamous cell carcinoma- usually appears as a scaly patch or raised, warty growth. It also has a high cure rate when found and treated early. In rare cases, if not treated, it can be deadly.

Melanoma- is the most dangerous form of skin cancer. It usually looks like a dark brown or black mole-like patch with irregular edges. Sometimes it is multicolored with shades of red, blue, or white. This type of skin cancer can occur anywhere on the body and when found early, can be cured. If not, it can spread throughout the body and often is fatal.

Other Effects
Excess sun exposure can lead to Immune system damage and eye damage causing cataracts and burns to the retina.

Protection from the Sun

If you are outdoors help protect your skin and eyes:

1. Avoid midday sun exposure. Your chances of developing sunburn are greatest between 10 a.m. and 4 p.m. when the sun's rays are the strongest.

2. Cover up. Wear a hat and light clothing to cover exposed body parts. Wear sunglasses that block UV rays to protect your eyes.

3. Sunscreens that block UVB rays can contain the following chemicals: padimate O, homosalate, octyl methoxycinnamate, benzophenone, octyl salicylate, phenylbenzimidazole sulfonic acid, and octocrylene. Broad-spectrum sunscreens add oxybenzone or avobenzone (Parsol 1789) to block UVA rays. Mexoryl is a chemical that blocks UVA; its broad-spectrum characteristics allow sunscreens to be made with very high SPF factors.

4. Physical sun blocks or chemical-free sunscreens that contain titanium dioxide and/or zinc oxide are especially useful for people allergic to chemical sunscreens.

5. Thirty minutes before going outdoors, liberally apply a broad-spectrum sunscreen that blocks UVA and UVB rays with a SPF (sun protection factor) of 30 or higher. For greatest protection use sunscreens with titanium dioxide, zinc oxide, oxybenzone or avobenzone (Parsol 1789). Reapply every 1 ½ - 2 hours and after swimming or excessive sweating.

6. Certain medications can increase sensitivity to the sun: i.e. tetracycline, sulfa. Check with your pharmacist with questions.

Tips for Sun Protection
The greatest sun damage occurs between 10 am - 4 pm when the sun's rays are strongest. Sunscreen does not completely protect you from the harmful rays of the sun or from sunburn.

- Wear protective clothing such as wide brimmed hats, long sleeved shirts and sun glasses when possible.
- DON’T use tanning beds. No level of exposure is safe for your skin and it will not protect you from later sun exposure.
- For every 1000 feet above sea level, ultraviolet radiation intensity increases by 5-6%.
- Remember that you can get burned on a cloudy day, the sun's rays can penetrate into the water, and the sun's rays can reflect off of sand, snow and other objects. It's easier to burn at high attitudes due to the thinner atmosphere.
- Sun protection should begin in infancy and continue throughout life. Remember to follow these few steps, and you can safely have fun in the sun.

**SUN BURN CARE**

- Drink a lot of water to restore hydration.
- Cool the affected area by applying cool compresses 10-15 minutes several times a day.
- For swelling and discomfort, take acetaminophen (Tylenol), or Ibuprofen (Advil) per package instructions.
- Moisturizing lotions and creams especially those with Vitamin E, Aloe or 1% OTC hydrocortisone cream may be helpful. Avoid creams with anesthetics such as benzocaine as they may cause an allergy reaction.
- If mild blistering occurs, an antibiotic ointment such as Bacitracin can be applied.
- Seek medical attention if you have a fever, severe blistering, nausea or vomiting, confusion, dizziness, or low urine output.