One of the most important ways to take care of your skin is to protect it from the **SUN**.

A lifetime of sun exposure can cause wrinkles, age spots, and other skin problems — as well as increase the risk of skin cancer.
SKIN 101

Believe it or not, skin is your body’s largest organ!

All skin is made up of three primary layers:
- Epidermis (top layer)
- Dermis (middle layer)
- Subcutaneous layer or hypodermis (lower layer)

Your skin has several very important tasks:
- Protect muscles, bones, and organs of your body
- Regulate body temperature
- Encases the nerves that enable your sense of touch and relay messages (like hot, cold, comfort, and pain) to your brain.

Ultraviolet radiation damages layers and functions of the skin.

Sunburn increases the body’s temperature and sensitivity to hot and cold.
Ultraviolet (UV) Radiation

The sun emits ultraviolet radiation, which is invisible to the human eye but harmful to the skin.

There are 2 types of UV radiation:

UV-A rays
• have long waves that penetrate deep into the lower layers of skin (dermis and hypodermis)
• damage the connective tissue, causing skin to lose its tone
• lead to premature aging and wrinkles

UV-B rays
• have short waves that are powerful and penetrate the upper skin layers (epidermis)
  • Too much UVB causes the pigment to become red, called sunburn
    • This alarms the skin cells to repair the damage
    • But, the more frequent and intense the sunburn, the less effective the repair process becomes.
• lead to modified genetic material, chronic skin damage, and cause early stages of cancer
Effects of Sun Exposure

Short term effects
• Sunburn
• Sun poisoning
• Heat Rash
• Heat Stroke
• Dehydration
• Freckles
• Dry skin

Long term effects
• Broken blood vessels
• Premature aging
• Dark spots
• Wrinkles
• Leathery, rough, and droopy skin
• CANCER
Sunburn

Sunburn is literally a burn from overexposure to UV radiation.

- The burn causes the skin to become red, inflamed, and painful and feels hot to the touch (usually appears within a few hours after sun exposure and may take several days or longer to fade).

- May also cause:
  - flu-like symptoms - such as chills, fever, nausea, and headaches
  - blistering - may range from a very fine blister that is only found when you begin to "peel" to very large water-filled blisters with red, tender, raw skin underneath.
  - skin loss (peeling) at about 4-7 days after exposure

- A severe case of sunburn is called sun poisoning, which is an allergic reaction that develops with prolonged sun exposure.

- With enough exposure, you can experience shock (poor circulation to vital organs) and even death if the condition is not treated properly.
Tanning Beds

Tanning is NOT part of a healthy lifestyle!

• A tan, whether you get it on the beach, in a bed, or through incidental exposure, is BAD NEWS.
• Tans are caused by harmful UV radiation from the sun or tanning lamps, and if you have one, you’ve sustained skin cell damage.
• Most tanning beds emit mainly UVA rays.
• Indoor UV tanners are 74% more likely to develop melanoma (the deadliest form of skin cancer) than those who have never tanned indoors.
• If you'd like the golden glow of a tan without exposure to damaging UV radiation, consider using a sunless tanning product.
Let’s talk sunscreen

A few things to consider for when looking for the right sunscreen...

**Spectrum**
- Look for “broad-spectrum” to protect against UVA and UVB rays

**SPF**
- The sun protection factor number only indicates the effectiveness against UVB rays
- You should not use sunscreen any lower than SPF 30

**Ingredients**
- Look for ingredients the U.S. Food and Drug Administration has identified as “Generally Recognized As Safe and Effective” (GREASE)
- Some examples: zinc oxide, salicylates, cinnamates, ecamsule

**Water resistance**
- Anything labeled “waterproof”, “sweatproof”, or “extreme” include ingredients to help the sunscreen adhere to the skin, but still loses some degree of effectiveness when skin is submerged in water.
- In situations such as swimming or extended sweating it is important to re-apply regularly (approximately every 90 minutes or less)

**Application**
- For maximum sun protection, sunscreens should be applied uniformly and thickly to all exposed skin surfaces (including the lips, using lip sunscreen or lip balm).

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Several moisturizers are including SPF in their products now for daily exposure. Be sure to apply more sunscreen with more exposure to the sun.
Factors that determine how much UV you are exposed to:

**Geography**
UV rays are strongest in areas close to the equator. Because the sun is directly over the equator, UV rays only travel a short distance through the atmosphere to reach these areas. Those in southern states should take extra precaution.

**Altitude**
Higher altitudes have greater UV exposure because there is less atmosphere to absorb UV rays.

**Time of Year**
The sun’s angle in relation to the Earth varies according to season. During the summer months the sun is in a more direct angle, resulting in a greater amount of UV radiation.

**Time of Day**
UV is most intense at noon when the sun is at its highest point in the sky and UV rays have the least distance to travel. Especially in the hot summer months, try to remain indoors during the peak sun hours of 11am and 3pm.

**Weather Conditions**
Many people believe that you cannot get sunburned on a cloudy day; this is simply not the case. Even under cloud cover it is possible to damage your skin and eyes, and cause long-term damage.

**Reflection**
Some surfaces, such as snow, sand, grass, or water can reflect much of the UV radiation that reaches them.
Tips for protecting your skin

Put on lotion about 20 to 30 minutes before going outside so that the skin can absorb it properly.

After swimming and toweling off or excessive sweating, re-apply sunscreen.

Avoid going out in the sun between 11:00AM to 3:00PM.
Be Extra Careful!

- Certain oral and topical medicines, including antibiotics, birth control, and benzoyl peroxide products can increase the sensitivity of your skin and eyes to UV rays. Check the label on your medicines and discuss the risks with your doctor.

- Cosmetics that contain alpha hydroxy acids (AHAs) also may increase sun sensitivity and susceptibility to sunburn. Look for the FDA’s recommended sun alert statement on products that contain AHAs.

- If your skin is very sensitive, get a hypoallergenic sun block for yourself.

- Extra precaution should be taken by people with fair skin that freckles or burns easily, moles, and a family history of melanoma.

- Children under sixteen years of age with a family history of skin cancer should avoid sun exposure.