



# Sun Protective Factor (SPF)

**ROGEL CANCER CENTER**  
MICHIGAN MEDICINE

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## Sun Protection

Sun exposure plays a major role in the growth of most skin cancers. If you had blistering or peeling sunburns as a child, you may have set the stage for skin cancer later in life. While childhood sun exposure may be the event that plants the seeds of cancer, repeated sun exposure as an adult may be what promotes the full scale growth of skin cancer. So, it's never too late to protect your skin.

Each day, the skin is exposed to sun rays that add up over a lifetime. Even on cloudy days, 80% of the sun's rays go through the cloud cover to reach the earth. So, skin cancer prevention will be maximized by daily sun protection starting in childhood. Ultraviolet B (UVB) rays are the main cause of sunburn. Ultraviolet A (UVA) rays are less likely to cause sunburn; but, they go through the skin more deeply and are considered the chief cause of wrinkling, leathering, and photo aging. To help protect your skin from the sun, follow these steps:

- Step 1:** Stay out of direct sun as much as possible, especially when it is most directly overhead - from about 10 a.m. to 4 p.m. in the summer and 10 a.m. to 2 p.m. in the winter. Keep in mind that cloud cover gives little protection and that sand, snow, concrete, and water can reflect up to 85% of the sun's harmful rays.
  
- Step 2:** Wear sun protective clothing. Hats with a wide brim help block the sun from the head and face. Long sleeves and pants also help a great deal. Special sun protective clothing is available at many clothing stores.
  
- Step 3:** Use a sunscreen or sun block. A sunscreen that blocks both UVB and UVA rays is ideal. Sunscreens chemically absorb UV rays, while sun blocks physically deflect them. A sunscreen with both

UVA and UVB or a sun block with a high enough Sun Protection Factor (SPF) is preferred. SPF measures the length of time that a product protects the skin from getting red from the sun's rays.

Sunscreens are available in many forms. They include: gels, sprays, lotions, ointments, and creams. Gels, while drying to the skin, work well on parts of the body that most often have more hair such as the legs and arms.

Refer to the chart on page three of this handout for more tips on choosing the right SPF. Sunscreen, while very important, is only one part of your whole sun protection program.

**Step 4:** Wear UV blocking sunglasses to protect your eyes. Use lip balm with an SPF rating of at least 15 to protect your lips.

**Step 5:** Get to know your skin. Only you know if something doesn't "look right." Seek the care of your doctor if a mole or spot on the skin is changing in size, shape, or color or if it is itching, bleeding, or growing.

#### **About Sun Protection Factor "SPF"**

The sun protection factor, or SPF, stated on the sunscreen bar refers mainly to the ability to block UVB, the rays that cause sunburns. Some of the newer sun blocks protect against UVA as well. Avobenzone (Parsol 1789) and oxybenzone block UVA rays. Titanium dioxide and zinc oxide, the white paste that life guards often use on their noses and lips, is the most effective UVB and UVA sun block.

### Explaining SPF

Time to skin reddening without protection	Multiplied by	SPF Number	Equals	The Amount of Sun Protection your skin receives
10 minutes	X	15 SPF	=	150 minutes or 2 ½ hours of protection
1 hour	X	15 SPF	=	15 hours of protection

### Choosing a Sun Protection Factor (SPF)

Use the chart below to match your skin type with the length of time you will need sun protection. This will give you the SPF number that your sunscreen should contain.

SKIN TYPES	TIME IN THE SUN				
	1 hour	1-2 hours	3 hours	4 hours	5 + hours
<b>VERY FAIR/EXTREMELY SENSITIVE</b> Never tans, always burns	SPF 15	SPF 30	SPF 30	SPF 45	SPF 45
<b>FAIR/SENSITIVE</b> Tans slowly, burns easily	SPF 15	SPF 15	SPF 30	SPF 30	SPF 45
<b>FAIR</b> Tans gradually, usually burns first	SPF 15	SPF 15	SPF 15	SPF 30	SPF 30
<b>MEDIUM</b> Tans well, burns minimally	SPF 15	SPF 15	SPF 15	SPF 15	SPF 30
<b>DARK</b> Tans easily, rarely burns	SPF 15	SPF 15	SPF 15	SPF 15	SPF 15

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Author:

Reviewers: M. Rabe, RN

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