

## How to Use this Sun Smart Instructor Guide for Ski Patrollers

This instructor's guide should be read in advance of patroller training. The training may take place in 6 modules, 10 minutes in length, or a single training session, approximately 60 minutes in length.

There are six major topics covered in this guide. The first topic introduces the sun smart concept, reviewing the incidence of skin and eye damage from excessive sun exposure and the role of ski patrollers as opinion leaders in preventing this damage. Topic two focuses on the degree to which you are at personal risk from exposure to the sun. The third topic provides general information about the anatomy of the skin, and explains two major types of skin cancer that can develop from sun damage to the skin. Topic four describes how to examine your skin for early signs of skin damage. The sixth topic covers how to spread the word about sun smart practices to your mountain guests.

Each topic begins with background information that will help you "get the word out" to the people you supervise. This includes basic facts about the sun and its effects; objectives to guide you as you discuss each topic with your co-workers; time required to cover the topic; and a list of key vocabulary used in each topic.

As a companion to this guidebook, we have created an activity sheet for coworkers with tools to assess their personal risk for skin damage from the sun and to set personal sun smart goals. We have also created a Web site that we urge you to look at - [www.gosunsmart.org](http://www.gosunsmart.org). It contains additional information about being sun smart at work and at play.

Here are tips on how to provide good instruction:

- Read the presentation completely and rehearse.
- Arrange the room so that every student can clearly see the slide presentation.
- Position yourself so you can comfortably refer to this instructor information.

## Module 1: Introduction to Sun Smart

### Background for Instructor:

Skin cancer is growing at an alarming rate in North America. Compared to Australia, where skin cancer is on the decline, North America's cases of skin cancer are rapidly increasing. The reason is simple. The Australians, who once led the world in the incidence of skin cancer, have become some of the most sun savvy people on the face of the earth.

Likewise, cataracts of the eyes are common in North America. Cataracts cloud the lens of the eye making it difficult to see and, if left untreated, can lead to blindness.

You don't have to be the proverbial "rocket scientist" to understand why too much sun in general, and too much sun in an alpine environment especially, can lead to more than the temporary discomfort of badly sunburned skin. The anatomy and biology of skin cancer and eye damage is fairly straightforward.

Why is it important that ski patrollers learn about sun protection?

- 1) As someone who spends a lot of time outdoors, you need to be aware of how to protect yourself from the harmful ultraviolet radiation in the sun that can damage your skin. There are some very simple steps you can take to reduce this damage.
- 2) Ski patrollers are a very important source of safety information at ski areas. In a survey of ski area employees, the ski patrol was cited as the most credible and respected employees for information about staying safe on the mountain, such as sun safety. Ski patrollers are the "opinion leaders" at ski areas on safety issues. Opinion leaders are very important people in any social group. People turn to opinion leaders for information. People also watch opinion leaders to see what they like, how they behave, what opinions they express and then act accordingly. Thus, ski patrollers can influence other employees and guests at the ski area to be sun safe.

### Learning Objectives:

- Introduce sun smart behavior as an environmental risk issue.
- Describe the features of the alpine environment that increase risk.
- Identify examples of incidence & prevalence of skin damage.
- Emphasize the need for sun smart behavior for self, co-workers, guests and families.

**Approximate Training Time:** 10 minutes

## Vocabulary:

Cancer:	A disease in which abnormal cells grow out of control. A cancer tends to spread locally and to other parts of the body and often causes death if not treated. Skin cancer can be caused by too much UV radiation exposure in one's life.
Cataracts	A disease of the eyes in which a film of protein is deposited on the lens of the eye, which clouds the vision. Cataracts can be caused by over exposure to UV radiation.
Ultraviolet (UV) Radiation:	Harmful rays from the sun, some of which are absorbed by the ozone layer, that can damage our skin and eyes. Seeking shade, limiting time in the sun during peak hours and wearing sunscreen, sunglasses and protective clothing can help prevent harmful UV rays from affecting us.
Opinion Leader	A person in a social group who is respected for their ideas and information. Opinion leaders usually emerge informally within a social group. They often have more contact with information sources outside of the group. They influence group members through their words and actions.

## Training Content:

[Show introduction slides]

The sun is an important, but often under-recognized *environmental risk issue* on the mountain. UV rays from the sun can *damage the skin*. Some of this damage is disfiguring, while other types can be deadly. The American Cancer Society estimates that 90% of skin cancers are caused by exposure to the sun's UV rays.

UV rays can also *harm the eyes*. They can burn the retina tissues and cause cataracts, other problems of the lenses and aging of the retina. Blue-light from the sun can also damage the eyes.

[Show slide 4 – Ultraviolet Rays Damage Skin]

- In alpine environments, there is a greater amount of UV rays than at lower elevations. In fact, the amount of UV rays increases by 5% for every 1,000 feet of elevation. So, at 8,000 feet, there is 40% more UV radiation than at sea level.
- The snow can reflect 85-95% of the UV rays.
- In the spring, UV and other rays from the sun are substantially higher than in midwinter.