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reaches the skin.

Worksite:	Instructor:	Date/Time:

Topic C247: Sunscreen (PPE)

Introduction: Over-exposure to the Sun's UV type A and B radiation will cause sunburn. It is very important to protect your skin because it shields the rest of your body from potentially harmful Ultra-Violet (UV) or Infra-Red (IR) radiation from the Sun's rays. Sunscreen may be considered Personal Protective Equipment when used to defend against over-exposure from "photon" radiation.

The type of skin pigmentation (melanin) a person has, and the amount of unprotected exposure to UV and IR rays, will determine the degree of skin reaction. Initially, the skin becomes red, painful, and maybe even slightly swollen; later, blisters can form and the skin may peel or flake.

The best – and most obvious – way to prevent sun damage is to stay out of strong, direct sunlight without preparation and protection.

- Proper clothing and even ordinary window glass filters out virtually all damaging UV sun-rays.
- Clouds and fog are not good UV filters; a person can still sunburn on cloudy or foggy days.
- Snow, water, and sand reflect sunlight, which magnifies the amount of UV light that reaches the skin.
- Over-the-counter rub-on ointment and cream preparations help protect your skin from these harmful rays.

<u>Sun screens:</u> Before exposure to strong, direct sunlight, a person should apply sun screen; an ointment or cream containing chemicals that protect the skin by filtering out the UV rays. Many sun screens are either water-proof or water-resistant. One common, effective type of sun screen contains PABA (para-aminobenzoic acid). It takes 30 to 45 minutes for PABA to bind strongly to the skin and much sweating soon after application will wash it off. Occasionally, some people have skin irritations or allergic reactions to sun screens containing PABA. It would be good to first test the sun screen before using it at work. Another type of sun screen contains a chemical called benzophenone. Many sun screens contain both PABA and benzophenone; this combination provides protection against a broader range of UV rays.

<u>Sun-blocks</u>: Are effective against burns in areas of the body that are exposed to continuous, direct sunlight such as the nose, lips, and cheeks.

Still other sun screens contain physical barriers such as titanium dioxide or zinc oxide. These are thick, white ointments that block sunlight from the skin and are used for small sensitive areas, such as the nose and lips. In the United States, sun screens are rated by their SPF (sun protection factor) – the higher the number, the better the protection. Sun screens with SPF ratings of 15 or more block most UV rays, but no see-through sun screen can block all UV rays. Most brands tend to block only UVB rays, but UVA rays can also cause skin damage. Some of the newer types are effective against UVA and UVB rays, so check the labels for these protections when purchasing sun screens.

<u>Healing</u>: Sunburned skin begins to heal by itself within several days, but complete healing may take weeks. Skin surfaces rarely exposed to sunlight tend to burn easily because they contain less pigment. They can be particularly uncomfortable and slow to heal. Sun-damaged skin makes a poor barrier against infection, and if one develops, healing may be delayed. After burned skin peels, the new layer of exposed skin is thin and initially very sensitive to sunlight, and may remain so for several weeks.

Conclusion: People who are in the sun a lot have an increased risk of skin cancers. Sunburn also hampers the body's natural cooling process, which is sweating. Wearing light-colored cotton clothing helps reflect bright sun-light, a broad-brimmed hat helps shade your head and neck, a wet bandana around your neck helps to cool, and the appropriate sunscreen or sun-block helps you cope with the hot sun and avoid the discomfort of a painful sunburn.

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