

GUIDELINES FOR TOUR OPERATORS

MINIMISING RISKS ASSOCIATED WITH ULTRAVIOLET RADIATION EXPOSURE

Tourism is regarded as one of the world's biggest industries. In 2001 there were 639 million tourists who contributed US\$463 billion to the world's economy. Many tourists seek sunny and warm destinations as part of their holiday experience. However, sunburn is a common holiday experience that can not only cause considerable pain and discomfort, but also significantly effect the holiday 'experience' to the customer.

Tourism industry representatives/players can play a crucial role in minimising the risks associated to sun exposure by ***disseminating information to their clients*** and by ***taking into account some few, but very important, measures in their facilities as well as tourism services.***

Why managing risks associated with ultraviolet radiation is important

Part of what makes a positive holiday experience is maintaining good health. When customers get sick or suffer pain, then their ability to enjoy and participate in activities is severely diminished. This not only means an unhappy customer, but also less potential for further income generation for tour operators.

Unfortunately many tourists are getting sunburnt and in some cases very severely as a result of overexposure to the sun's ultraviolet (UV) radiation. UV radiation plays an important role in the development of skin cancer and cataracts, and

suppresses the immune system. Further to this, cumulative UV radiation results in premature skin ageing. Evidence is showing that a short period of intense exposure, such as sunbathing is associated with a 2-fold increase in melanoma risk. Melanoma is the most lethal of all skin cancers.

Unfortunately skin cancer rates are on the rise in many parts of the world including the United States and Europe. A part of the reason for the rise can be explained by the more recent affordability and accessibility of airline travel, particularly to warm and sunny destinations.

What is sunburn

Sunburn is the skin's reaction to ultraviolet radiation. Without any form of protection during periods of high UV radiation, UV immediately starts to penetrate deep into the layers of the skin.

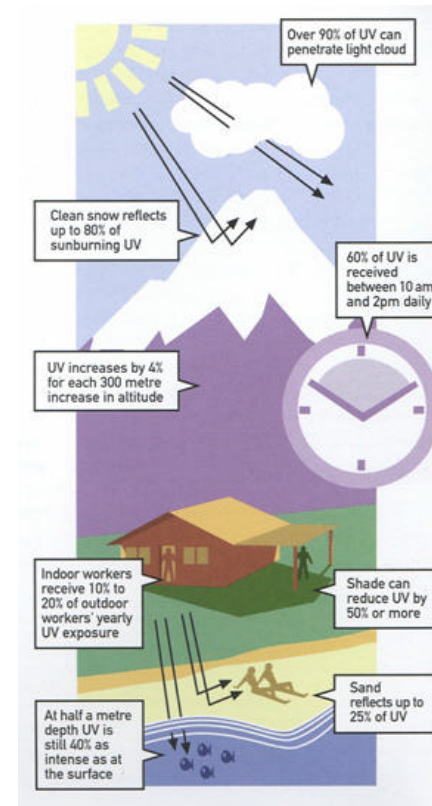
After a certain time, in some cases as little as 15 minutes depending on skin type and UV radiation intensity, the skin releases chemicals that causes the blood vessels to expand and leak fluids, causing inflammation, pain and redness—otherwise known as sunburn. Pain associated with sunburn can last up to 72 hours after exposure to the sun.

Many people get sunburnt when the temperature is between 18 and 27 degrees. In these conditions, people can often forget about sun protection because it may feel cool outside. When it is very hot, particularly in the middle of the day, people often seek environments such as indoors or shade to avoid direct exposure to the sun.

What Effects Ultraviolet Radiation Levels

Emissions from the sun include light, heat and ultraviolet (UV) radiation. UV radiation reaching the Earth's surface is largely composed of UVA with a small UVB component. UV radiation levels are influenced by:

- Sun elevation: the higher the sun in the sky, the higher the UV radiation level. Thus UV radiation levels vary with time of day and time of year.
- Latitude: the closer to equatorial regions, the higher the UV radiation levels.
- Cloud cover: UV radiation levels are highest under cloudless skies but even with cloud cover, they can be high.
- Altitude: at higher altitudes, a thinner atmosphere absorbs less UV radiation.
- Ozone: ozone absorbs some of the UV radiation that would otherwise reach the Earth's surface.
- Ground reflection: grass, soil and water reflect less than 10% of UV radiation; fresh snow reflects as much as 80%; dry beach sand about 15% and sea foam about 25%.

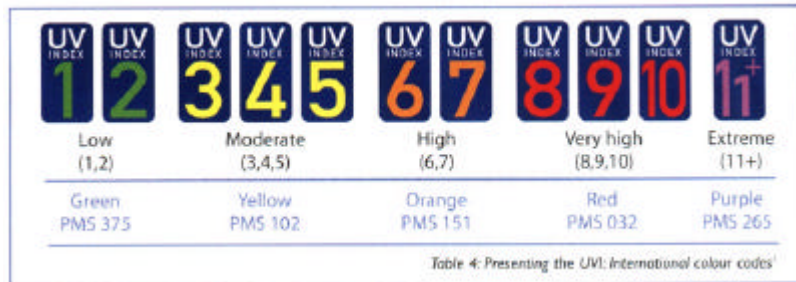


UV levels are higher out in the open, for example, on the beach or at sea. In these circumstances UV is scattered from the whole sky, as well as can be reflected from ground cover. In these circumstances a beach umbrella (for example) can offer only partial protection because of the high amount of scattered and reflected UV.

HOW THE GLOBAL SOLAR UV INDEX CAN HELP

The Global Solar UV Index (UVI) describes the level of solar UV radiation at the Earth's surface. The values of the index range from zero upward – the higher the index value, the greater the potential for damage to the skin and eye, and the less time it takes for harm to occur.

The UVI is an important vehicle to raise public awareness of the risks of excessive exposure to UV radiation, and to alert people about the need to adopt protective measures.



UVI Category	Color	PMS Code
Low (1,2)	Green	PMS 375
Moderate (3,4,5)	Yellow	PMS 102
High (6,7)	Orange	PMS 151
Very high (8,9,10)	Red	PMS 032
Extreme (11+)	Purple	PMS 265

Table 4: Presenting the UVI: international colour codes¹

How to minimise the risks of sunburns

Information to customers prior to them leaving home

You should encourage your customers before they leave for their holiday to pack a wide brimmed hat, sunscreen and sunglasses. This information should be conveyed at point of sale verbally as well as in pre-departure information.

Information to customers while they are under your care

There are a few – but very important guidelines that can help prevent sunburn and other life threatening effects of solar exposure. To assist in communicating these guidelines to your customers, in the appendix/web page you will find **the basic tips** already translated in ... languages as well as some **graphics** that you could use to produce fun communication material. Include these guidelines in your communication to your clients.

Brochures

While it makes good commercial sense to promote your business within the context of a sunny destination, refrain from using images depicting people intentionally sunbaking without either shade or protective clothing such as a wide brimmed hat and shirt. These images reinforce stereotypes that are harmful to health and could easily lead to a negative and painful holiday experience.

While customers are under your care ... Special recommendations on what you can do

For excursion providers:

- Ensure sunscreen, sunglasses and hats are either freely available or for sale,
- Provide regular reminders to your customers of the importance to take precautions to prevent sunburn.
- If customers are going to be left at any one place for a long time, ensure locations are chosen that have access to shade.
- Where shade doesn't exist, avoid leaving your customers for long periods exposed to the sun over the period of solar noon when the UV radiation is at its most intense. Instead plan the schedule so that long periods outdoors are at times when ultraviolet radiation levels are significantly lower, such as early morning or late in the afternoon.

For resorts managers – water based:

- Ensure sunscreen, sunglasses and hats are either freely available or for sale,
- Provide regular reminders to your customers of the importance to take precautions to prevent sunburn, especially on their arrival. Strategic use of signs to encourage sun protective behaviour is encouraged.
- Ensure your facility has plenty of shade where customers are likely to congregate.
- Provide or rent beach umbrellas for customers if they do not already exist.
- Schedule events that may require long periods in direct sunlight away from peak UV periods. Instead plan the schedule in the early morning or late in the afternoon when the UV is significantly less intense.

For resorts managers – in mountain areas:

- Ensure sunscreen and sunglasses are available for sale,
- Provide regular reminders to your customers of the importance to take precautions to prevent sunburn and eye damage.

What to do if your customers get sunburnt.

Beyond the pain of sunburn, too much sun exposure can result in skin blistering, headaches, nausea, vomiting, or dizziness. In such cases your customers should be encouraged to see a doctor. If the situation is not severe, the following steps are recommended;

1. Suggest to your customers they protect their skin from further direct sun exposure until the redness, peeling and pain have disappeared.
2. Suggest they drink plenty of water to replenish their fluid levels. Dehydration is another potentially dangerous side effect of too much sun exposure.
3. Suggest they visit a pharmacist to purchase a specific sunburn treatment.

As soon as it becomes comfortable to do so, suggest they apply a moisturising cream to the burnt area to keep it moist and supple. Even though it will not prevent peeling, moisturising will help prevent the new skin below from drying out.

Inform your customers on what they can do to prevent sunburns

The 'Sun Protection Message for Tourists' has been produced in co-operation with the World Health Organization and the United Nations Environment Programme. It summarizes the basic measures that could help prevent sunburns from sun exposure.

Communicate these tips to your customers and they will enjoy even more their holidays!

These guidelines can be found as an information sheet in a pdf format for free downloading in "Information resources" of the INTERSUN homepage (<http://www.who.int/peh-uv/index.htm>).

There you will also find fun graphics ("Downloadable UV Index Graphics") that you could use in developing your communication material.