

Be Aware of the Sun

Tutor's Handbook



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What's in Sunshine?

The Sun has many benefits for us on Earth. Some of these include daylight, the fact that it creates a temperate climate for us to live and thrive in; the Sun also gives us Vitamin D which is essential for our bodies. And with recent technological advances, you can now harvest the energy of the Sun through solar panels and use this to generate electricity for our homes and businesses.

It is true that in certain parts of the world, humans love the sun. The Irish and British in particular adore it because they don't get to see too much of it. On mass holidaymakers from these parts travel to sunnier climates during the summer, just to see the sun. However, some places in the Middle East the sun is a constant menace due to the fact that it is always around. On a human level, the sun is important as it feeds us with copious amount of Vitamin D – a very important vitamin which helps us to absorb calcium so that we can have strong bones. However, for humans, the sun has some negative effects if not treated with precaution. The aim of this resource is to introduce some of the positive and negative aspects of our relationship with the Sun, and to provide some tips for staying safe in the Sun.

Benefits of Sunlight

The Sun gives many benefits, that we often over-look because of the negative press it attracts. It is true that unsafe exposure to the sun can increase your risk of skin cancer, of damaging your eyes and skin, etc. However, there are many benefits that can be enjoyed from safe exposure to the sun. We will list some of these benefits here:

- Provides humans with Vitamin D:

This vitamin is crucial for maintaining healthy bone strength in humans. Through our intake of Vitamin D, this allows us to better absorb calcium which we need to develop healthy bones. However, it is recommended that humans only need 15 minutes of the ultraviolet light from the sun each day to get their required amount of Vitamin D.

- Relieves stress:

We all get a little stressed from time to time. Some of the best natural ways that we can relieve stress includes exercises, relaxing, walking in nature and getting some safe exposure to the sun.

- Heals some skin disorder:

Sunlight can be effective in healing some skin disorders, including acne, psoriasis, jaundice, eczema and some fungal skin infections.

- Boosts your mood:

Access to sun light is a natural mood booster. Sunlight can help people to feel better and like they have more energy.

- Improves sleep:

Sunlight exposure impacts how much melatonin your brain produces, which is what tells your brain when it is time to sleep. When it gets dark, you start producing melatonin, so you are ready to sleep in about two hours. With more sunlight in the summer, you are likely to feel more awake.

- Relieves symptoms of seasonal depression:

Some people suffer during the winter months with a syndrome call Seasonal Affective Disorder (SAD). The lack of sunlight during winter months can trigger this disorder, which causes people to feel mildly depressed. Symptoms include bad moods, difficulty making and keeping friends, overeating, tiredness and sleeping too much. The sunlight is the best natural antidote to SAD.

Dangers of Sun Exposure

We all know that too much exposure to the Sun can be detrimental to our health, but have you ever stopped to consider the full range of negative effects that sun exposure can have on us?

Here is a list of some of the main dangers of too much sun exposure:

- Causes heat exhaustion:

Heat exhaustion is the term given to the body's reaction to losing too much water and salt – usually caused by excessive sweating. The symptoms of heat exhaustion include:

- Headache
- Nausea
- Dizziness
- Weakness
- Irritability
- Thirst
- Heavy sweating
- Elevated body temperature
- Decreased urine output

People working outdoors and in hot environments are most at risk of heat exhaustion.

- Heat stroke:

If heat exhaustion is left untreated, it can lead to heat stroke. Heat stroke is the most serious heat-related illness and can be life-threatening. Heat stroke causes the body's temperature to rise and if it is left untreated, it can cause death or permanent disability.

Symptoms of heat stroke include:

- Confusion, altered mental status, slurred speech
- Loss of consciousness (coma)
- Hot, dry skin or profuse sweating
- Seizures

If you notice any of these symptoms after exposure to the sun, you are advised to seek immediate medical attention as it can be life-threatening if left untreated.

- Damages the eyes – Cataracts:

Unprotected and long-term exposure to ultraviolet light from the sun can cause damage to the retina in our eyes. In our eyes, the retina is found at the back of the eye. It is a clear film, where the rods and cones make visual images that we interpret in our brains. Damage from exposure to UV sunlight can also cause the development of cloudy bumps along the edge of the cornea, which can then grow over the cornea and prevent clear vision. UV light is also a factor in the development of cataracts.

- Pre-maturely ages the skin:

Over exposure to the sun can cause wrinkling and other signs of ageing in our skin. We associate wrinkling with getting older, but our exposure to sun light plays a bit factor in developing wrinkles. UV light damages collagen and elastic tissue in the skin, so it becomes fragile and does not spring back into shape, causing sagging. Exposure to the sunlight is the second worse element to impact on how quickly we age – second only to smoking!

- Skin cancer:

The worst and most dangerous consequence of over exposure to the sun over a prolonged period is skin cancer. There are three common types of skin cancer which you are in danger of developing after prolonged years of unsafe sun exposure:

- Basal Cell Carcinoma (BCC) – this almost always occurs on

skin that is severely damaged by the sun. It usually appears pink, shiny and raised. Although BCC doesn't generally spread, it does get bigger and deeper over time and can become a problem if ignored.

- Squamous Cell Carcinoma (SCC) – SCC is caused by sun exposure but also through burn scars (from heat or radiation). In a small number of cases, SCC can spread to the lymph nodes and (rarely) to other organs.
- Malignant Melanoma – this is the least common type of skin cancer but perhaps the most dangerous, and the number of people with Melanoma is rising every year, especially in young women between the ages of 18 and 29 because of the high rate of tanning bed use in this population. Melanoma is very dangerous and can occur any place where there are pigment-producing cells, include the entire skin (it does not have to be in direct sun-exposed areas, but sun exposure increases the risk), moles, birthmarks and the eye. It can spread to lymph nodes and beyond to other organs, including the brain, lungs and liver. Melanoma is much more common in families

with a history of abnormal moles or malignant melanoma.

- Sun burn:

Sun burn is one of the most common and immediate negative effects of too much exposure to the Sun. Symptoms of sunburn appear approximately 4 or hours after the skin is burnt and damaged by the Sun, and with this delay, people are often unaware that they have been burned and so they risk being burnt further by remaining in the sun. Symptoms of sunburn include:

- Redness
- Pain and tenderness
- Blisters
- Flu-like symptoms, such as nausea, fever, chills or headache

If you or a relative have these symptoms and also have a fever, it is advisable that you seek medical attention.

How to use this Resource with your Local Health Group?

This handbook presents some introductory information on the topic of sun light and sun exposure and helps to present the benefits and dangers of sun light which you can share with members of your local health network. To use this resource with your local group, we recommend that you first play the short video lecture and the lead a group discussion on then topic of sun exposure.

To accompany this handbook, you will also find a short PowerPoint presentation that

can be used with your local health network to introduce the benefits and dangers of sun light and exposure to them, and also to provide them with some tips for protecting themselves from the harmful rays of the sun. This presentation gives some of the basic information that is included in this handbook. Use the presentation to talk to the members of your local group about sunlight, whether or not they think it's a public health concern in their community and what they could do to support others to limit the effects of sun exposure on their health.

Group Activity

Once you have shared the digital resource and the PowerPoint presentation with your group members, you can start a group discussion about how they would raise awareness about sun exposure in their local community? To start this discussion, pose the following questions to the group:

- How do you protect your skin?
- How do you protect your eyes?
- What are peak sun hours?
- Do you know how to check the UV index?
- Is there any such thing as a 'healthy tan'?
- Should you use sun cream/sunscreen year-round?

Group members can search online for answers to some of these questions if they don't know some answers. Spend 25-30 minutes discussing each of these points.



ON CALL

Lay Community Health Advisors



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Future In
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