

## Sun and your skin

Before we learned about the dangers of ultraviolet rays, soaking up the sun's rays used to be considered healthy.

Sunlight can be used to treat some skin diseases, but we all need to avoid overexposure to the sun. Too much sun can cause sunburn, wrinkles, freckles, skin texture changes, dilated blood vessels, and skin cancers. It may also cause skin rashes.

### The sun's rays

The sun produces both visible and invisible rays. The invisible rays, known as ultraviolet-A (UVA) and ultraviolet-B (UVB), cause most of the problems. Both cause suntan, sunburn, and sun damage. There is no "safe" UV light.

Harmful UV rays are more intense in the summer, at higher altitudes, and closer to the equator. The sun's harmful effects are also increased by wind and reflections from water, sand, and snow. Even on cloudy days UV radiation reaches the earth and can cause skin damage. The UV index is a prediction of ultraviolet intensity in a given location. It can be found in most weather forecasts.

### Protection from the sun

Using sun protection will help prevent skin damage and reduce the risk of cancer. Start with avoiding peak sun hours and dressing sensibly. Most clothing absorbs or reflects UV rays, but white fabric like loose-knit cotton, and wet clothes that cling to your skin, do not offer much protection. The tighter the weave, the more sun protection it will offer. It is recommended that you avoid deliberate sunbathing, wear a wide-brimmed hat, sunglasses, and protective clothing. If you must be in the sun, use a sunscreen with a sun protection factor (SPF) of at least 15, but higher factors such as SPF 50 or 60 are better, even on cloudy days. Sunscreens work by absorbing, reflecting, or scattering the sun's rays on the skin. They are available in many forms, including ointments, creams, gels, lotions, sprays, and wax sticks. All are labelled with SPF numbers. The higher the SPF, the greater the protection from sunburn, caused mostly by UVB rays. Some sunscreens, called "broad spectrum," block out both UVA and UVB rays. These do a better job of protecting skin from other effects of the sun. However, sunscreens are not perfect. Sunscreens should be applied about 20 minutes before going outdoors. Even water-resistant sunscreens should be reapplied about every two hours, after swimming, or after strenuous activities.

Beach umbrellas and other kinds of shade are a good idea, but they do not provide full

protection because UV rays can still bounce off sand, water, and porch decks. Remember, UV rays are invisible.

## Effects of the sun

Sunburn - Your chances of developing a sunburn are greatest between 10am and 4pm, when the sun's rays are strongest. It is easier to burn on a hot day, because heat increases the effects of UV rays, but you can get burned on overcast days as well.

Sun protection is also important in the winter. Snow reflects up to 80% of the sun's rays, causing sunburn and damage to uncovered skin. Winter sports in the mountains increase the risk of sunburn because there is less atmosphere at high altitudes to block the sun's rays.

If skin is exposed to sunlight too long, redness may develop and increase for up to 24 hours. Severe sunburn causes skin tenderness, pain, swelling, and blistering. Additional symptoms like fever, chills, upset stomach, and confusion indicate serious sunburn and require immediate medical attention. If you develop severe sunburn or begin to develop a fever, your dermatologist may suggest medicine to reduce swelling, pain, and prevent infection.

Unfortunately, there is no quick cure for minor sunburn. Cool, wet compresses, baths, and soothing lotions may provide some relief.

Tanning - A tan is often mistaken as a sign of good health. Dermatologists now know that a suntan is a result of skin injury; a suntan occurs when UV rays enter the skin and it protects itself by producing more pigment or melanin.

Indoor tanning is just as bad for your skin as sunlight. Most tanning salons use ultraviolet-A bulbs. Studies have shown that UVA rays go deeper into the skin and contribute to premature wrinkling and skin cancer.

Ageing - People who work outdoors or sunbathe without sun protection can develop tough, leathery skin, making them look older than they are. The sun can also cause large freckles called "age spots," and scaly growths (actinic keratoses), that may develop into skin cancer. These skin changes are caused by years of sun exposure. Protecting children from the sun is especially important, since most of our lifetime exposure occurs before the age of 20.

Wrinkles - Wrinkles are directly related to sun exposure and can be intensified by smoking.

Skin cancer - More than 90% of all skin cancers occur on sun-exposed skin. The face, neck, ears, forearms, and hands are the most common places it appears.

The three most common types of skin cancer are basal cell carcinoma, squamous cell carcinoma, and melanoma.

- Basal cell carcinoma usually develops on the face, ears, nose, and around the mouth of fair-skinned individuals. It can start as a red patch or shiny bump that is pink, red, or white. It may be crusty or have an open sore that does not heal, or heals only temporarily. This type of cancer can be cured easily if treated early.
- Squamous cell carcinoma usually appears as a scaly patch or raised, warty growth. It also has a high cure rate when found and treated early. In rare cases, if not treated, it can be deadly.

- Melanoma is the most dangerous form of skin cancer. It usually looks like a dark brown or black mole-like patch with irregular edges. Sometimes it is multicoloured with shades of red, blue, or white. This type of skin cancer can occur anywhere on the body and when found early, can be cured. If ignored, it spreads throughout the body and can be fatal.

Allergic reactions - Some people develop allergic reactions to the sun. These reactions may show up after only a short time in the sun. Bumps, hives, blister, or red blotches are the most common symptoms of a sun allergy. Sometimes these reactions are due to cosmetics, perfumes, plants, topical medications, or sun preparations. Certain drugs, including birth control pills, antibiotics, blood pressure, arthritis, and depression medications can cause a skin rash with sun exposure.

Diseases - Some diseases can be made worse by the sun, including cold sores, chickenpox, and a number of less common disorders such as lupus erythematosus. UV rays also can cause cataracts, a gradual clouding of the lens in the eye.

### Tips for sun protection

- Use a broad-spectrum sunscreen with a SPF of at least 15 on all exposed skin, including the lips, but higher factors such as SPF 50 or 60 are better, even on cloudy days.
- If exposed to water, either through swimming or sweating, a water-resistant sunscreen should be used.
- Reapply sunscreen frequently and generously, usually every two hours.
- Wear a broad-brimmed hat and sunglasses.
- Sit in the shade whenever possible.
- Wear protective, tightly woven clothing.
- Plan outdoor activities early or late in the day to avoid peak sunlight hours between 10am and 4pm.

Everyone should be able to enjoy sunny days. By using a little common sense, as well as these guidelines, you can safely work and play outdoors without worrying too much about skin cancer or wrinkles.

Please feel free to discuss any questions or worries you may have with your doctor.

### How to contact us

ENT Clinical Admin Team (CAT1) (Monday to Friday, 9am to 4pm)

Tel: 0118 322 7139 or email [CAT1@royalberkshire.nhs.uk](mailto:CAT1@royalberkshire.nhs.uk)

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