



National Cancer
Control Programme



Feidhmeannacht na Seirbhise Sláinte
Health Service Executive

Stay safe in the sun to reduce your cancer risk

Is there a link between the sun and cancer risk?

Yes. There is a strong link. The main cause of skin cancer is too much exposure to ultraviolet (UV) rays. UV rays are part of natural sunlight. Too much UV from the sun or from sunbeds damages the skin. This causes skin cancer. It also causes skin ageing and cataracts in the eyes. UV rays are present during daylight even on a cloudy or cool day.

What cancers does the sun cause?

Skin cancer is the most common cancer diagnosed in Ireland and the sun causes it. Around 8,700 new skin cancers are diagnosed each year and the number is growing.

There are two main types of skin cancer. These are:

- Non-melanoma. This is the most common type, with 8,000 cases diagnosed every year;
- Melanoma. There are 700 cases diagnosed each year. Melanoma is the most dangerous type of skin cancer.

Who is most at risk from skin cancer?

Everyone is at risk of skin cancer. The risk increases as you get older. Some people are at a higher risk of melanoma and they should take extra precautions in the sun. The people who are at higher risk have:

- a large number of moles (more than 50);
- fair skin;
- light hair colour and blue, green or hazel eyes;
- had skin cancer in the past;
- immunosuppression – that is people who have had an organ transplant, for example a kidney or heart transplant, and are taking anti-rejection drugs;
- a family history of skin cancer;
- had two or more sunburns in the past (especially blistering sunburn);
- used a sunbed in the past.

How does skin colouring increase the risk of skin cancer?

A person's skin colour - that is, their 'complexion' or skin type – is controlled by their genes. This cannot be changed. Over 75% of the Irish population have the 'Celtic skin type'. People with this skin type have a fair complexion, light-coloured hair and blue, green or hazel eyes. They freckle and burn easily. They tan with difficulty, or not at all. They are most at risk of skin cancer.

How can you prevent skin cancer?

You can prevent skin cancer by covering up and staying in the shade. It is important to protect children as they generally spend more time outdoors and burn easily. Skin can burn in 15 minutes even on a cloudy day. Sunburn, especially in childhood, can double the risk of developing skin cancer as an adult. So avoid getting sunburnt. Don't try to get a tan. A tan is a sign of damaged skin. Tanned skin eventually wrinkles and sags.

To reduce your risk of skin cancer, you should follow these tips:

1. Stay in the shade

When the sun is strongest (between 11am and 3pm), stay in the shade using trees, umbrellas or canopies. Whatever you use for shade, make sure it casts a dark shadow. Follow the shadow rule: Watch your shadow – if your shadow is short you should seek shade.

2. Cover up

Cover as much skin as possible by wearing a long-sleeved shirt or top with a high collar and long pants or a long skirt. Close-weave clothes can keep out 95% of UV rays.

3. Wear a wide-brimmed hat

A wide-brimmed hat gives good protection to the ears, face, nose and neck. These are common places for skin cancer. A peaked hat or a visor does not give enough protection.

4. Wear sunglasses

Sunglasses can help to prevent melanoma and cataracts in the eye. Ideally, sunglasses should be wraparound. Look for the label that shows they protect against both UVA and UVB. Children need sunglasses too.

5. Use sunscreen – a minimum of factor 15

Choose a ‘broad spectrum’ sunscreen which has UVA and UVB protection. UVA protection is shown by at least four stars and the circular UVA logo on the sunscreen container. Use a minimum of factor (SPF) 15. Children and people at high risk of skin cancer should use a higher SPF, for example SPF 30.

Apply sunscreen liberally to clean, dry skin at least 20 minutes before going outside and reapply every two hours. If you’re going swimming, make sure your sunscreen is water resistant and reapply it afterwards, or after sweating or exercising outdoors.

Sunscreen is not meant to increase the time you can spend out in the sun but it does increase the protection you have during unavoidable sun exposure. It should always be used with other forms of protection. Be especially careful near water, snow and sand as these reflect UV rays.

6. Never use a sunbed

Never use a sunbed. They cause skin cancer. People who use a sunbed before the age of 35 increase their risk of getting a melanoma by 75%. Sunbeds emit up to 12 times more UV rays than the hottest sun.

The Department of Health proposes to ban sunbeds for the under 18 age group (www.doh.ie)

If you really want a bronzed look, use fake tan lotions and sprays. They temporarily stain the skin a darker colour without exposing you to the risks of a sunbed. When using fake tan, you still need to use sunscreen if you are spending time in the sun.

7. Know the UV index

The UV Index is a simple tool that shows the strength of the sun's UV rays so that you will know how to protect your skin. This index ranges from 1 to 11+ and the higher the index, the more care is needed outdoors (see UV index table on next page).

- You can check the UV index forecast on the weather page of most daily newspapers and it is on the Met Éireann website (www.met.ie) from May to September.
- You can also get a daily UV forecast for anywhere in the world on the following website: www.uvawareness.com/uv-index

UV index table: this gives information on the care to take, depending on the UV index forecast. The higher the UV index, the greater the chance of damage to your skin and eyes, so more care is needed.

			Low
UV Index 1	UV Index 2		<ul style="list-style-type: none"> ▪ Minimal sun protection is needed for normal outdoor activity. ▪ Wear sunglasses on bright days. ▪ If outside for more than one hour you should cover up and use sunscreen with UVA protection. ▪ If you have sensitive skin, or for babies and children, cover up and use sunscreen with UVA protection.
UV Index 3	UV Index 4	UV Index 5	Moderate
			<ul style="list-style-type: none"> ▪ Take care as your skin could burn which will increase your risk of skin cancer. ▪ Cover up, wear a hat and wraparound sunglasses, and use sunscreen of SPF 15 or higher (for babies and children use SPF 30) and UVA protection, especially if you are going to be outside for 30 minutes or more. ▪ Stay in the shade from 11am to 3pm.
UV Index 6	UV Index 7		High
			<ul style="list-style-type: none"> ▪ Protection is needed as this level of UV damages the skin and eyes and can cause sunburn which increases your risk of skin cancer. ▪ Reduce your time in the sun between 11am and 3pm. ▪ You need to cover up, wear a hat and wraparound sunglasses, and use sunscreen of SPF 15 or higher (for babies and children use SPF 30) and UVA protection.
UV Index 8	UV Index 9	UV Index 10	Very high
			<ul style="list-style-type: none"> ▪ Extra care is needed as skin will become damaged and will burn quickly which will increase your risk of skin cancer. ▪ Stay out of the sun between 11am and 3pm. ▪ You need to cover up, wear a wide brimmed hat and wraparound sunglasses, and use sunscreen of SPF 30 or higher with UVA protection.
UV Index 11+			Extreme
			<ul style="list-style-type: none"> ▪ Take complete care and stay out of any direct sunlight until the UV levels drop. ▪ Skin will become damaged and will burn in minutes which will increase your risk of skin cancer. ▪ Stay out of the sun completely between 11am and 3pm. ▪ You need to cover up, wear a wide brimmed hat and wraparound sunglasses, and use sunscreen with SPF 30 or higher and UVA protection.

8. Find skin cancer early

Check your skin regularly. Know what your moles look like. See a doctor if you notice any unusual skin changes, if you have a wound that does not heal, or if you notice a mole changing in size, shape, feel or colour. Treatment is more likely to be successful if skin cancer is discovered early.

Some signs of skin changes include:
<ul style="list-style-type: none">• a spot, mole or sore that itches or hurts,• a mole or growth that bleeds or scabs,• a new growth or sore that won't heal.

How can you protect babies in the sun?

Babies should always be kept in the shade. Their skin should be well covered up with loose-fitting clothes and hats.

What if you work outdoors?

If your job means you work outdoors, you are at increased risk of skin cancer so you need to be extra careful. Outdoor workers receive three to four times more UV exposure each year than people who work indoors. Often, this exposure happens during those times in the day when the UV rays are strongest between 11am and 3pm.

When the sun is strongest between 11am and 3pm, you should try to:

- limit your time outdoors,
- stay in the shade,
- wear a wide-brimmed hat,
- wear loose, comfortable clothing that covers as much of the body as possible,
- wear sunglasses, and
- wear sunscreen, even on cloudy days – use a minimum factor 15.

What about Vitamin D?

Vitamin D is required for healthy bone growth. There are two natural sources of vitamin D:

1. It is produced in the skin from sunlight.
2. It is obtained in foods such as oily fish, fortified dairy products and cereals, eggs and meat.

Most people receive enough vitamin D levels through a healthy diet and sunlight exposure during typical day-to-day outdoor activities.

The amount of vitamin D that can be produced in the skin is limited, so to seek UV exposure for the purpose of getting vitamin D is a waste of time. During summer months, most people can get enough vitamin D with just a few minutes of sun exposure during UV off peak times (before 11am or after 3pm) on their face, arms and hands

Some people are at risk of vitamin D deficiency. These include:

- people who cover their skin for religious or cultural reasons;
- people who are housebound or in institutional care;
- babies;
- patients with osteoporosis; and
- naturally dark-skinned people, who need more UV exposure to make sufficient amounts of vitamin D as their skin colour reduces the absorption of UV.

People in these groups should consult their doctor for advice on whether they need to take a vitamin D and calcium supplement.

What about babies and vitamin D?

Infants should not be exposed to direct sunlight. As their diet is low in vitamin D, a daily supplement of vitamin D should be given. The HSE recommends that all infants from birth to 12 months, whether breastfed or formula fed, should be given a daily vitamin D supplement. This supplement should contain only vitamin D and you can get these from your pharmacy.

A HSE fact sheet is available to download at:

<http://www.healthpromotion.ie/hp-files/docs/HPM00665.pdf>

Fortified dairy products are the most important dietary source of vitamin D for older infants and children.

Useful websites:

- The Irish Cancer Society: www.cancer.ie
- Worldwide UV index daily forecast: www.uvawareness.com
- Met Éireann www.met.ie



Approved by NALA

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This factsheet will be reviewed as new evidence emerges. While every effort has been made to ensure that the information provided in this factsheet is accurate, we do not accept responsibility for errors or omissions.