

A message to organ transplant recipients from Dr Catherine Harwood

Reducing the risk of skin cancer after an organ transplant

When fine weather with blue skies and glorious sunshine arrive there is no reason why transplant patients shouldn't be out enjoying the weather but it is important that they are very careful to protect themselves from excessive sun exposure.

Skin cancer and its causes after a transplant

Skin cancer is the commonest form of cancer in white populations around the world, and its rate is rising because of exposure to the sun. In the UK alone, it is estimated that there are at least 100,000 cases each year. After an organ transplant, the risk of developing skin cancer increases enormously and is approximately 100 times higher than in the general population. These cancers often begin to appear between 5 and 10 years after a transplant, but this is very variable. Half of all patients will have had some form of skin cancer within 20 years of their transplant.

Why are transplant patients at risk of skin cancer?

Immunosuppressive treatments decrease your immune (defence) mechanisms to prevent rejection of your graft. It is thought that this suppression of the immune system is partially responsible for the increased risk of skin cancer. However, in transplant patients, as in the rest of the population, sun exposure remains a key cause.

Identifying and treating skin cancers

The 2 main types of skin cancer following a transplant are [squamous cell cancers](#) (SCCs) and [basal cell cancers](#) (BCCs or rodent ulcers). [SCCs](#) are the most frequent skin cancer after a transplant. Usually they appear on the face, ears, scalp, neck, forearms or backs of hands, but SCC can occur anywhere on the skin. They can look like a small scaly lump, very much like a wart, but are often sore or tender and may form an ulcer. [BCCs](#) often appear on the head, neck or torso as shiny, skin coloured lumps, which grow more slowly and may eventually ulcerate, but can simply look like a reddish, scaly patch of eczema or psoriasis. Both SCCs and BCCs can be cured with simple surgery if they are detected early. If neglected, or they become very numerous, treatment may be more difficult, requiring extensive surgery and skin grafts. Some transplant patients may have multiple skin cancers. In this situation, either slightly reducing the doses of anti-rejection medication or starting a tablet called acitretin may reduce the rate at which the cancers develop. Spread of these cancers to other parts of the body (metastasis) is rare. BCCs remain in the skin only and do not spread elsewhere; SCCs occasionally spread, and in these circumstances, cure is difficult.

[Actinic or solar keratoses](#) ('sun warts') and [Bowen's disease](#) are pre-cancerous patches on the skin which have the potential, if left untreated, to become SCCs. They often appear as scaly red spots or patches on sun-exposed parts of the body such as the face, neck, backs of the hands or legs in women. They are usually treated either by freezing treatment (cryotherapy), creams (e.g. 5-fluorouracil/efudix, retin A and 5% imiquimod/ Aldara), or a form of light treatment called photodynamic therapy.

[Melanomas](#) are a much rarer, but more serious form of skin cancer. Fortunately they are very uncommon after a transplant. They usually appear as a changing mole (change in size, shape and colour over weeks to months are particularly important), or as a new mole. Unless they are surgically removed at an early stage, they may spread around the body and cause serious problems.

Who is at risk?

All transplant patients are potentially at risk, although the risk is much less for people with darker skin types, e.g. those of African and Asian descent. People with any of the following are particularly at risk:

Past heavy sun exposure (e.g. outdoor worker, previously living abroad, outdoor hobbies, 'sun worshipper', frequent holidays abroad)

Fair skin, which burns easily and tans poorly

Red or fair hair, blue eyes

Numerous freckles

Transplanted over the age of 60 years.

How can skin cancer risk be reduced?

Sun protection

As sun exposure is a key cause of skin cancer in transplant patients, careful sun protection is the most important measure to reduce risk. Sun exposure does not just mean sunbathing. All outdoor activities such as gardening, sports, driving in the car, and even popping out to the shops for half an hour may be relevant. In the UK, the sun exposure is a particular risk factor from April to October, between 11am and 3pm even on overcast day. The effects of the sun are more intense on the beach, in the sea, in the mountains and in snow (due to reflection). It is also far more intense in countries nearer to the equator (e.g. Australia, some parts of USA, Africa and Mediterranean). The best way to protect against sun damage during outdoor activities is to:

Stay indoors between 11 am and 3 pm between April and October, but if you have to be out during these times:

- Keep in the shade as much as possible
- Wear protective clothing: protect your face and neck with a broad-brimmed or Legionnaire type hat (baseball hats and caps do not protect the ears and neck); wear sunglasses (ideally wraparound types); cover up with long-sleeved shirts or dresses made from tightly woven fabrics; wear trousers or a long skirt or dress, not shorts.
- Use a sunscreen: this should protect against the 2 types of ultraviolet from the

sun – ultraviolet B and ultraviolet A (UVB and UVA). UVB protection is the 'SPF' (sun protection factor) value on a sunscreen. We recommend SPF 30. UVA protection is recorded as a star value – 4 stars being the highest. As long as the sunscreen fits these guidelines, any one is suitable. You may need to try several different types before you find the one that best suits your skin. Transplant patients are usually advised to wear a sunscreen on all exposed areas of the body (face, neck, ears, backs of hands and legs in women) daily between April and October, even if it is not sunny and even if you are only planning to be outside for short periods. Ideally sunscreens should be applied half an hour before going out as they do not work immediately. They should then be reapplied within 30 minutes, before the first application has been completely absorbed into the skin. They should then be reapplied in the middle of the day, or more often if you are sweating or swimming.

Early detection

It is important to keep a regular check on your skin, perhaps by examining yourself once a month, in order to pick up any changes. Any spot, patch or ulcer which is enlarging or does not heal up within a few weeks should be reported to your doctor or nurse. We recommend that all transplant patients who have any of the risk factors for developing skin cancer mentioned above, should have a skin examination – at least once a year - by a medical practitioner e.g. dermatologist, transplant doctor, general practitioner or specialist nurse.

Enjoy the sun safely!

Skin cancer is a potential complication of organ transplant. Most skin cancers can be prevented and the majority of those that do occur are easily treated when detected early. Very careful sun protection and skin surveillance enables the vast majority of transplant patients to enjoy outdoor activities and holidays abroad without undue risk.