



EUROPEAN  
ACADEMY OF  
DERMATOLOGY &  
VENEREOLOGY

Information Leaflet  
for Patients

## Skin infections in organ transplant patients

### **The aim of this leaflet**

This leaflet is designed to help you understand more about skin disorders in organ transplant patients. It tells you how to take care of your skin after organ transplantation, various skin disorders and what treatments are available for those disorders. Part 2 of this leaflet addresses other skin conditions that can develop in organ transplant patients and the signs/symptoms, prevention, and treatment of these conditions.

# Skin infections in organ transplant patients

## What other skin problems occur after organ transplantation? Can they be prevented, and what are the treatment options?

Some skin conditions other than skin cancers may also develop after organ transplant surgery. Infections such as fungal infections of the skin and nails (namely tinea infections), pityriasis versicolor (yeast infection), and viral infections (viral warts and herpes virus infections) are very common. Other skin infections may also develop. Some common skin infections are described along with pictures below:

### Fungal infections of the skin and nails:

They are usually seen as itchy, scaly, pinkish patches on the feet, or a whitish rash between the toes (*tinea pedis* or "athlete's foot"). Your nails can also be affected, and may look thickened and turn yellow or brown (*onychomycosis*). An itchy, red-bordered rash on the groins (*tinea cruris*), itchy, flaky, pink/reddish patches that usually look like a ring on your torso ("ringworm"/*tinea corporis*), or flaky

patches on the scalp with hair loss especially in children ("scalp ringworm"/*tinea capitis*) may also be observed. Depending on the type of fungal infection, you would need to use antifungal creams, nail lacquers, or pills. Also, you should not use other people's towels, clothes, shoes, or comb, which may be infected. You should avoid walking barefoot on an infected floor such as pool decks and public showers. Keep your skin dry, as fungi grow in warm, moist areas.



Onychomycosis

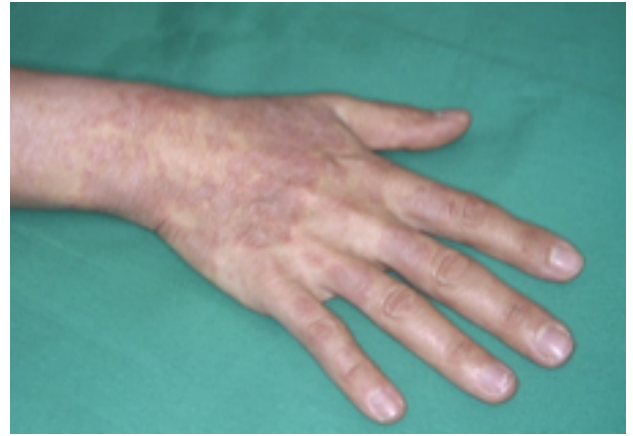


Tinea pedis





Ringworm (tinea corporis)



Ringworm (tinea manuum)

**Pityriasis versicolor:**

Yeast live on the skin surface. When your immune system is suppressed, or when weather is hot and humid, yeast can grow and cause flaky, small, pink/tan or light brown spots and patches on your body, usually on the chest, back, shoulders, and upper arms. After sun exposure, these spots become white and more noticeable.



Pityriasis versicolor

It is not contagious, and can be treated by medical shampoos, sprays, or creams. If the infection is widespread, you might need to use anti-fungal pills under the supervision of your dermatologist.

**Viral warts:**

They are very common after organ transplantation, and caused by *human papillomavirus (HPV)*. You can get the infection from someone who has a wart, or even by touching an infected towel or floor. You may sometimes develop large numbers of warts. They can be in the form of common warts (often look like rough bumps, and develop on the fingers and back of the hands), *plantar* warts (on the sole of the feet, and flatter than common warts), flat warts (smaller and smoother than common warts, and usually found on the face), and genital warts (transmitted by sexual contact).



Common warts



# Skin infections in organ transplant patients

Certain strains of HPV that cause genital warts can cause cancer in both male and female patients. Therefore, it is important that you seek treatment for genital warts. Women need to see their gynecologist to get a cervical screening (smear testing) to check for cervical cancer.

Treatment of viral warts can be difficult in organ transplant patients. Your dermatologist will usually offer one or several of the following medications: salicylic acid preparations, cantharidin, 5-fluorouracil cream, vitamin A creams or pills, freezing (*cryotherapy*), electrocauterization, or laser. Surgical

removal of the wart may also be applied if you have a wart that is difficult to treat. If you have many untreatable warts, reducing the dose of your anti-rejection drugs may help. Do not pick or scratch the warts as they can spread to other body parts. Wear flip-flops in pool areas, public showers, and bathtubs. The aim, however, is to control rather than cure the warts.

Flat warts



Plantar warts



Genital warts



Shingles (herpes zoster)



Cold sore (Herpes simplex infection)

### Herpes virus infections:

Shingles (*herpes zoster*) and chickenpox (*varicella*) are caused by the same virus. Shingles causes painful blisters on certain areas of the body, such as one side of the chest, the arm, the leg, or the face. Chickenpox causes fever and a widespread itchy rash that blisters. Because both diseases can be serious in transplant patients, you should see your physician if you have any blistering rash on your body.

Cold sores (*herpes simplex* infection) are common, and cause painful, itchy or burning blisters or ulcers in the same area (around the mouth and nose, or face). Most patients catch the virus during infancy or childhood by skin-to-skin contact from a person who carries the virus. Sharing objects like lip balm, towels, or a razor is another way of acquiring the virus.

It can also occur on the anogenital area (*genital herpes*). *Genital herpes* generally spreads through sexual intercourse. Additional outbreaks can occur for cold sores and genital herpes as the virus never leaves the body.

Occasionally, the infection can be widespread and serious in transplant patients, and you may need to use antiviral creams or pills. Sun protection may be helpful in reducing the outbreaks of cold sores.



Anogenital herpes simplex infection

You should contact your dermatologist if you have signs of the skin infections described above. Also, be aware of any unexplained skin change, especially when you have fever, as it may be an early sign of widespread infection. In that situation, see your transplant physician or dermatologist; you may need urgent laboratory tests to be done including a skin biopsy from that area.

A new vaccine against herpes zoster infection is now available and recommended to immunosuppressed patients such as transplant recipients to prevent reactivation of varicella-zoster virus. .

# Skin infections in organ transplant patients

## Drug-related skin changes:

You may also experience immuno-suppressive drug-related skin changes such as acne, *hypertrichosis* (an excessive amount of hair growth on any area of your body), delayed wound healing and fragile skin, *striae* (stretch marks), and *sebaceous hyperplasia* (harmless multiplication of *sebaceous* or oil glands, seen as raised, yellowish, tiny bumps, especially on the forehead, nose, and cheeks).

## In general, how often should I see a dermatologist?

As a transplant patient, you need to visit your dermatologist at least once a year! If you have skin cancer or a history of skin cancer, you need to have a complete skin examination more frequently.



Acne due to steroid use



Hypertrichosis due to steroid use



Sebaceous hyperplasia due to cyclosporine use

While every effort has been made to ensure that the information given in this leaflet is accurate, not every treatment will be suitable or effective for every person. Your own clinician will be able to advise in greater detail.