



EUROPEAN
ACADEMY OF
DERMATOLOGY &
VENEREOLOGY

Information Leaflet
for Patients

Cancer related xerosis



The aim of this leaflet

This leaflet is designed to inform you about xerosis (excessive dryness of the skin) you may experience during your cancer therapy. We will explain what types of xerosis exist, why and how they occur, and which is the best way to manage them.

Cancer related xerosis

What is cancer treatment-related xerosis?

In patients with cancer, chemotherapy, immunotherapy, targeted therapy and hormonal therapy as well as radiation therapy can lead to excessive dryness of the skin. Systemic effects of the anti-cancer therapies affect skin cells as well. Skin cells lose their ability to effectively produce substances that are part of the natural moisturising factor in the skin, skin barrier is disrupted and it leads to skin dryness (lat. xerosis)

Certain vitamin deficiencies can also occur during cancer, increasing the dryness induced by anticancer treatments.

What does xerosis look like and what are the symptoms?

In the case of xerosis the skin becomes dry, scaly, rough and somewhat dull. The skin has less elasticity, potential coarsening of the skin texture and wrinkling. In more severe cases redness (inflammation) and breaks or cracks in the skin can occur. If they are left untreated, they may lead to skin infection. Xerosis is usually accompanied by itching and the feeling of tightness. Sometimes these symptoms might be felt like a burning sensation or pain.

Any part of the body can be affected by xerosis, but commonly occurs on the lower legs, forearms and hands.

How to prevent and manage skin dryness?and what does it look like?

While skin dryness poses several challenges, there are ways to significantly improve this condition and alleviate its negative effects. Below are the main principles and procedures that will insure proper prevention and management of skin xerosis:

1. Quick Baths & Showers. While people with this condition may instinctively feel that exposing their bodies to water can help them deal with dry skin, the result is quite the opposite - excessive bathing and showering dehydrates the skin and makes it even worse. It is recommended that, whenever possible, people with dry skin limit their showers to once a day and up to 5 minutes in duration. Baths should never exceed 15 minutes.

Water temperature should not be too hot or too cold. A moderately warm water is best suited for dry skin. In addition, it is very important to use gentle and fragrance-free mild cleanser or oil baths that will not irritate the skin. Any product applied needs to be rinsed thoroughly.

Lastly, drying should be done with a soft towel by patting the skin lightly rather than rubbing the towel.

2. Moisturizing. Dry skin requires the regular use of topical moisturizers. It is important for moisturizers to include active ingredients such as urea, ceramides, glycerol and polidocanol in the form of a lotion, creams, balm or an ointment. However, when making a specific choice of a moisturizer it is recommended to use the one prescribed by the dermatologist who was able to assess specific individual needs. The best time to apply moisturizer is within 3-5 minutes from completing the shower. Once you apply the moisturizer, allow about 5 minutes for it to be absorbed by your body prior to getting dressed. When moisturizing the body it is imperative not to overlook the lips, hands, and feet. Use of lip balms and hand/feet moisturizers (with 5- 10% urea) need to be part of the regular skin moisturizing routine.

3. Clothing. It is recommended that people with dry skin avoid wearing tight clothing as well as any synthetic fabrics and wool. Best options are cotton and silk, especially when loosely fitted.

In addition, the clothing needs to be washed with fragrance-free laundry

detergents, it needs to be rinsed thoroughly and fabric softeners should be avoided.

4. Weather Conditions. In winter, the use of humidifiers can increase the level of air humidity at home and help with dry skin. When outside, it is important to wear gloves to keep the hands warm.

Summertime is challenging as well. Sun and UV rays have drying and other negative effects on the skin. It is very important to seek shade and avoid direct sun exposure. Use of sunscreens, long sleeves, pants, and wide brimmed hats is highly recommended.

5. Physical Activities. People with dry skin often experience itching and skin flare-ups when sweating. It is imperative to take a quick shower immediately after any physical activity. Swimming can also worsen the symptoms because of the water's skin drying effect that is often combined with sea salt or chemicals used in the swimming pools. Quick shower with moderately warm water, followed by applying a moisturizer is highly recommended. Any activity in which hands can be exposed to water and/or chemicals (e.g. washing dishes, washing a car, gardening, and similar) should be done with gloves to protect the skin from excessive exposure to water as well as the chemical that can cause irritation.

Management. At times, even when adhering to all recommendations listed above, skin irritation and dryness may persist causing discomfort and itching. Great challenge for most people is to avoid scratching the itchy skin. Scratching

intensifies the itching, damages the skin and can lead to skin infection. To relieve itching and avoid scratching patients can apply cold compresses or wet dressings on the affected areas. If itching persists, the best practice is to consult a dermatologist who will optimize and individualize the treatment by including oral antihistamines, topical antipruritic agents and /or appropriate anti-inflammatory drugs (including topical corticosteroids).

General recommendations of skin care in patients treated for cancer:

- Avoid temperature extremes, such as a very dry and cold atmosphere in summer or a dry and overheated room in winter.
- Prefer using wide-fitting and light cotton-made clothing.
- Avoid long showers and baths, namely with extremely hot water; instead, prefer short showers with lukewarm water.
- Avoid inappropriate and harsh skin cleansers, as well as those with perfumes, additives, preservatives or sensitizing agents.
- Opt for gentle soap-free and fragrance-free syndets or oil shower baths with a near-physiological skin pH of about 5.5.
- The most appropriate cleansers are the one with a mechanism of "affinity" and not of "aggression", therefore it is preferable to use cleansers based on vegetable surfactants, so as not to deplete the hydrolipidic film.
- Avoid friction with rigorous rubbing to dry after the bath.

- Avoid excessive personal hygiene and the use of multiple cosmetic products, which may impair the epidermal barrier and be a source of contact dermatitis.
- Use a moisturizer on a daily-basis, ideally just after the bath; if needed, you can use it liberally and frequently.
- Choice the galenic that best suits you: cream, lotion, balm or ointment (particularly on the lower limbs).
- Opt for creams/lotions with specific ingredients or actives, such as antioxidant agents (e.g. vitamins E), re-lipidizing substances (unsaponifiables of shea, wheat germ, ceramides, cholesterol, squalene...), moisturizing agents (collagen, hyaluronic acid) and anti-inflammatory substances (e.g. glycyrrhetic acid, betaglucon).
- Avoid synthetic grease/fat/oils petrochemicals (eg. petrolatum, kerosene, vaseline) since they are occlusive substances and provoke maceration but not hydration.

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.