

## Views and Practice

# How to tackle my dry skin problem?

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It seems to be a relatively simple and easy question when our patients ask us "How should I manage my dry skin?" Most patients would have been told that liberal use of emollients with no limitation in duration and frequency is required. Indeed, can such a simple answer truly address the problem? There have been many advances in skin care in recent years and many of them are based on a deeper understanding of the molecular events and genetic dysfunction. A thorough and updated knowledge on the emollients and skin cleansing products is needed before we can address the question properly.

Emollients refer to the topical products made up of oil and lipid with some water component to facilitate application onto the skin and to provide partial occlusion. Humectants refer to products that have ingredients that can attract moisture, water from the dermis to the epidermis. Occlusives are simply topical products that minimize the evaporation of water when applied to the skin. In general, emollients have some occlusive properties.

Dry skin (xerosis) is a very common problem in our daily practice especially with the aging

population. Xerosis can be caused by different conditions (see Table 1). It is found in elderly patients (as senile xerosis), patients with photo-damaged skin, atopic dermatitis, ichthyosis, asteatotic eczema and various types of eczema, psoriasis and those patients on topical or systemic retinoids. Occasionally, it may imply an underlying medical condition e.g. hypothyroidism. It is found also in some health-conscious and anxious patients who repeatedly cleanse his/her skin excessively with various strong anti-septic soaps or cleansing agents. After exclusion of some of the correctable factors that lead to dry skin e.g. excessive washing, hypothyroidism, concurrent use of retinoids and excessive sun exposure, we can tackle the dry skin on two important aspects. Firstly, proper advice on the choice of emollient and secondly the choice on skin cleansing products.

In the past, we thought that the use of emollients was mainly as an adjunctive treatment for the skin condition e.g. atopic dermatitis. Now that we understand the importance of emollients, the selection of the proper emollient should receive as much emphasis as the selection of anti-inflammatory medications for these cases. I briefly divide the emollients into three generations and make my classification of the emollient for clinical use in Table 2. Each generation of emollient has its own pros and cons as highlighted in the table. We can recommend the most appropriate generation of emollient to our patients for the treatment of dry skin. What is the most suitable time to apply the emollient? The best time to apply is right after a shower/bath. It is recommended

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that the bath/shower should not be too hot or too long (preferably within 5 minutes). Excessive drying of the skin after showering is not encouraged and it may even be beneficial to leave a little bit of water on skin surface before using the emollient. The emollient can be applied to the dry skin as well to other parts of the body for this application. It will substantially reduce the post-bath itch. Then the emollients (a small tube or amount to be carried) can be applied to any dry and itchy area when there is an early sensation of dryness or itching. Preferably, emollients should be applied to any dry areas, in particular the back and lower limbs, before going to bed, especially during the winter. If the first generation emollients are used,

we need to warn our patients that there is a risk of slipping (especially in the bath-tub) and staining of pajamas and bed linen.

Usually our patients will ask which to be applied to the skin first, the emollient or the active topical medication? I do not recommend the use of emollient and active topical medication together as the emollient may repair the skin barrier and act as diluent so that the efficacy of the active topical medication is reduced. As the active topical medication is usually applied to the diseased skin and not to the normal skin, I advise my patients to use the active topical medication sparingly on the affected area before applying the emollient.

**Table 1.** Common causes of dry skin (xerosis)

Skin dermatoses	Atopic dermatitis, asteatotic eczema, senile pruritus, post sunburn, chronic sun damage, ichthyosis vulgaris, excessive washing
Medical conditions	Hypothyroidism, HIV infection, Sjögren syndrome, Hodgkin's lymphoma, chronic renal failure, anorexia nervosa, Vitamin A deficiency, nutritional deficiency
Drug induced	Isotretinoin, acitretin, topical glycolic acid (post chemical peel), topical tretinoin

**Table 2.** My classification of emollients

	Properties	Remarks: Pros and Cons
First generation	Act as both emollient and skin cleansing product, different surfactant added (and may contain skin barrier damaging product e.g. sodium lauryl sulphate); less appealing to patient.	Inexpensive, can be prescribed in large quantities e.g. Aqueous Cream BP, Emulsifying ointment, Olive Oil, Liquid and white soft paraffin.
Second generation	Refinement of texture and base of the product, reduction of surfactant, potential allergens, harmful preservatives, fragrance free and non-comedogenic; improved patient compliance and acceptance.	More expensive and most products have lines of products with separation of emollient function and cleansing function.
Third generation	Properties of second generation with addition of some components that can have skin barrier repairing function e.g. Addition of ceramide, natural moisturizing factors (i.e. have properties of humectants); addition of anti-pruritus component, newer delivery system incorporated by new technology for formulation.	Most expensive but more suitable for selected patients who have severe skin barrier defect problem e.g. atopic eczema.

If the emollient was applied first, I would advise the patient to apply the active medication at least one hour after the application of emollient. On the other hand, after using active topical medication, emollient can be used to both the affected area 30 minutes later and non-lesional dry skin area at any time.

Another question commonly asked by our patients is which emollients are recommended. The pros and cons of the different generations of emollients are shown in Table 2. There are numerous brands in the newer generation products and unfortunately, there are no good head-to-head studies to document for comparison. I still believe that if there is any difference between them, the difference will be small and require very large sample size studies that probably will not be performed in the near future. The other important point is that usually it is the patients' subjective feeling that one emollient is better than the other. If available, I usually give samples for my patients to try and find out which is more suitable. I may also give the names of some of the same generation emollient products for my patients to find out which suits their skin best. Even for the more expensive third-generation emollients, patients may find that they are not as good as the older emollients especially if the emollient contains ingredients to which the patient is allergic. Hence, I adopt a more open view and let my patients choose although we can explain the major difference between the different generations of emollients. However, first-generation emollients that contain sodium lauryl sulphate (SLS) (e.g. the original formulation of Aqueous Cream BP) should not be recommended to patients as they have been proven to be damaging to the skin corneocytes, thus impairing the skin barrier.<sup>1-3</sup>

Last but not least is the recommendation of the use of soap substitute for patients who have dry skin. In the past, we usually recommend the first-generation emollients both as emollient and soap substitute. I shall say that it is probably outdated. Patients usually find that the first-generation emollients to be messy, slippery, and inadequate as a cleanser. This will reduce the compliance and defeat the purpose of our overall treatment strategy. Hence many skin pharmaceuticals separate the emollient product and non-drying cleansing product. Some good cleansing products which act as a soap substitute for dry skin are now available on the market and they can be in the form of soap bar, cleansing lotion, cleansing gel. All of them are much less damaging to the skin barrier and have some mild emollient effect. Furthermore, they tend to be customer-orientated with foam-producing properties when used for bathing. This will give a better sense of cleanliness and are easier to use. Hence, it will enhance the compliance of these new cleansing products and will help to alleviate the dry skin problem. Again, I would recommend a list of product names (or give them some samples to try if available) and let patients to find out what suits their skin best.

## References

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