What is “sensitive” reactive skin?

- The skin cannot tolerate anything: it tingles and feels tight. There is no visible sign or sometimes a very slight redness. However, the discomfort is practically constant: this is a sensitive, reactive skin.
- The skin is red, sensitive to the touch, wrinkled in some places, tending to peel but not itchy: this is an irritated skin, the result perhaps of a cosmetic product unsuitable for the type of skin to which it has been applied.
- The skin is red, is rough to touch, may be either dry or moist. Very intense pruritus (itching) is present: there is certainly an allergy to a product, cosmetic or otherwise.

In fact it is the temporary or permanent conjunction of several factors which triggers this cutaneous hyperreactivity.
Treatment of “sensitive” skin

- Use the least possible number of cosmetic products.
- Choose unscented or very slightly perfumed products specifically intended for ‘sensitive skin’.
- Exclude soap and toilet bars. In preference use leave-on cleaning lotions or thermal water atomizers. Do not forget to dry well by dabbing with a paper tissue (not cotton).
- Choose moisturising creams which are light in texture and easy to apply, or possibly, cold creams or cerates, even if these are greasier. If working in air-conditioned or overheated surroundings, do not hesitate to reapply these creams several times a day.
- Avoid skin cleansing and exfoliating face masks (particularly in the case of dry skin) and the use of exfoliating products (AHA, retinaldehyde and tretinoin).
- If the application of a product triggers lasting tingling and/or tightness, stop using it immediately.
- Choose non-irritant hair products (without surface-active agents).
- Protect your skin from changes in temperature, sunlight, wind and from direct sources of heat (open fires, radiators).
- Keep your consumption of alcohol to a minimum. Notice whether there is greater irritation following the consumption of coffee or spices.

How does one become allergic to a cosmetic product?

Sensitization takes place gradually after the skin has been in contact with a product several times. This can occur in different ways:

- usually **direct contact** (example: eczema of the eyelids due to mascara),
- by **reaction to a product applied ‘at a distance’** (example: eczema of the eyelids due to a product applied elsewhere on the face),
- by **hand contact**: a product applied elsewhere on the body and brought by the hand to the face or neck (example: nail varnish responsible for eczema of the neck),
- by **air contact**: the allergen is carried in the air and comes into contact with the skin (example: drops of perfume sprayed on the face by a third party, pulverisations of toilet deodorants or even by fragrance dispensers),
- by **vicarious contact**: reaction due to contact with a product present on another person (example: eczema of a man’s thorax due to the hair dye of his partner),
- by **contact and exposure to the sun**: in the presence of sunlight, a molecule which is normally well tolerated becomes a ‘photo-allergen’. The eruption associated with the product only appears in areas exposed to the sun (example: eczema of the face and neckline due to a sun product).
Allergic dermatitis due to cosmetics can be present in different forms:

**Pruritus:** itching in the area and often beyond the area of application of the cosmetic product: this is the first sign of allergy.

**Erythema:** a simple, common reaction. This is a redness of varying dimensions, without any alteration in the surface or the depth of the skin, which disappears when pressed with a finger.

**Eczematids:** commonly called ‘scurf’: these are little pink plaques covered by fairly fine scales located in a limited area of the body or else spread everywhere over the skin. In general they are not very itchy and are not an obvious indication of sensitivity to a cosmetic product.

**Eczema:** there is not just ONE form but there are MANY forms of eczema. Between acute and chronic eczema there are numerous intermediary forms which are sometimes difficult to diagnose.

- **Acute eczema:** can occur on application of a cosmetic product which contains a molecule called an ‘allergen’, because it triggers an immunological reaction of rejection. On the third or fourth application of the product, itching can appear, followed by redness, oedema, vesicles (small blisters) and oozing. If application of the offending product is discontinued, the skin becomes covered with a scab which will fall off spontaneously, leaving behind a new, pink, thin, fragile but healthy skin. On the other hand, if application of the allergenic product is continued, the eczema will become more and more acute, oozing and extensive and will spread beyond the area of application, making diagnosis of the origin difficult.

- **Chronic eczema:** unlike acute eczema, it never oozes but is dry, cracked and chapped. As with all types of eczema, it is very itchy, leading to scratching and a thickening of the skin referred to as ‘lichenification’.
IRRITATION and ALLERGY are often confused. It is important to distinguish between them because the treatment and prognosis for these skin reactions are completely different.

Urticaria: this can be likened to nettle stings because the lesions are red, projecting, ‘œdematous’, in different-sized plaques, mostly located at the points of application of the cosmetic product, rarely spread out over the whole body. Urticaria is violently itchy. It may disappear spontaneously in a few hours or, on the contrary, spread further if the responsible product continues to be used. Urticaria is caused by cosmetics much less frequently than the other types of reaction.

Pigmentation: this corresponds to an alteration in the colour of the skin, which becomes darker. There can also be pigmentation of the nails due to the application or handling of various cosmetic products.

In fact, whenever there is itching, the possibility of an allergy must be considered. In some places the clinical symptoms are specific, particularly in the case of the eyelids, scalp, lips and hands. No matter what the location, the differential diagnosis between irritation and allergy is often very difficult, all the more so as these two types of reaction can co-exist.
### Irritant dermatitis, Allergic dermatitis: What are the differences?

<table>
<thead>
<tr>
<th>Time of appearance</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Site of eruption</td>
<td></td>
</tr>
<tr>
<td>Predisposition</td>
<td></td>
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<tr>
<td>Clinical symptoms</td>
<td></td>
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<tr>
<td>Size of eruption</td>
<td></td>
</tr>
<tr>
<td>Clinical course</td>
<td></td>
</tr>
<tr>
<td>Cause</td>
<td></td>
</tr>
<tr>
<td>Molecules and products responsible</td>
<td></td>
</tr>
</tbody>
</table>

**Sites most often affected**

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<table>
<thead>
<tr>
<th>Irritant dermatitis</th>
<th>Allergic dermatitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate or after several applications</td>
<td>After several successive contacts or when use of a cosmetic product is resumed</td>
</tr>
<tr>
<td>Limited to area of contact with the product</td>
<td>Often spreads beyond the area of contact with the product</td>
</tr>
<tr>
<td>Can happen to anybody</td>
<td>Problem of individual sensitization</td>
</tr>
<tr>
<td>Tingling, tightness, redness, cracks, vesicles; little or no itching</td>
<td>Redness, oedema, vesicles, cracks; intense itching</td>
</tr>
<tr>
<td>Variable, according to concentration, time and number of applications of product</td>
<td>Reaction possible even with a low dose of a cosmetic product applied for a short time</td>
</tr>
</tbody>
</table>
| Generally fast and easy recovery | | • Slow recovery  
• May require general treatment  
• Frequent recurrence if continued presence of allergen |
| Incorrect choice of product, unsuitable for skin type | Reaction to a molecule which has become an ‘allergen’ |
| Soaps, shampoos, deodorants, shaving products, perfumes, toilet waters and products that are too greasy, ‘antiageing’ products with AHA and/or vitamin A acid | Perfumes, toilet waters and scented products ++++, preservatives ++, excipient components (lanolin), hair dyes, nail varnishes and other nail products, sun screens, etc. |
| Eyelids +++, hands (back and palms) ++, armpits ++, genital organs +, neck +, lips + | Eyelids +++, rest of the face ++, neck ++, lips ++, scalp ++, hands (back) and finger pulps + |

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Treatment of an irritated skin

Irritation encourages the onset of allergy and therefore should be treated as effectively as possible.

It is necessary to:

- stop using the suspect cosmetic products. If the eyelids are involved, the application of all cosmetic products must be discontinued,
- clean the skin with neutral lotions or thermal water,
- dry gently by dabbing (not with cotton),
- apply creams containing molecules chosen according to the type of irritation: conditioning, nourishing, healing, or even more neutral if necessary: cold creams or cerates,
- apply sunscreens containing mineral filters in case of exposure to the sun,
- avoid the application of creams containing cortisone: such creams do not cure the irritation, but weaken the skin and provide only momentary relief.

This transitory relief provided leads to the repeated use of cortisone, which in turn brings about a ‘dependence’ possibly leading to ‘corticosteroid dermatitis’: the skin, thinned in this way, is erythematous, fragile, criss-crossed by a great number of small vessels, increasingly sensitive and the source of vasomotor reactions.
Treatment of an allergic reaction

Most such reactions require consultation with a general practitioner or a dermatologist.

- The eruption is typical of an allergy but the allergen is not known:
  If the problem is an acute eczema, the application of thermal water and cortisone creams for a limited period of time, at progressively longer intervals, is generally sufficient to obtain a cure. Antihistamines are sometimes associated with this, to soothe the itching.
  In the case of lesions that have become dry, a greasy and neutral substance will subsequently be applied.
  However, it is essential to identify the allergen because otherwise, as soon as the treatment is stopped, the clinical symptoms may reappear and gradually get worse. Identification is generally possible through the use of patch tests.

- The eruption is associated with a known product and/or molecule for which the product applied has not been analysed (example: preservative or perfume):
  The formula of suspect products must therefore be checked for the presence of the previously identified allergen.
  The avoidance of this molecule and of all the products containing it must then be systematic. Avoidance lists, where possible, facilitate the choice of suitable products.

In any event, there is no possibility of desensitization to the contact allergens contained in cosmetic products. The only way of obtaining a cure is the total and permanent avoidance of the allergen.
How can the diagnosis of an allergy to a cosmetic be confirmed?

- After eliminating the possible responsibility of any cutaneous disease present prior to the eruption (eczema, psoriasis, seborrheic dermatitis, etc.), identify by means of a 'police-type' interrogation:
  - the type of products used (skin care, hygiene, hair, sun),
  - the method and frequency of use,
  - the time sequence of the appearance and progress of the lesions,
  - the products used to treat the eruption,
  - the cosmetics used before and during the eruption (AHA and vitamin A acid),
  - other products – household, domestic, professional, medicinal – used personally, by the family or familiars, perhaps also airborne,
  - antiageing skin (dermabrasions) or surgical treatments.

- By clinical examination which will attempt to distinguish between irritation and allergy and note the appearance of the lesions (see table page 7).

- By carrying out various skin tests:
  - **patch tests** applied on the back and removed after 48 hours. These are carried out with a standard battery including the molecules most frequently used in cosmetics, as well as with perfumes, antiseptics and other substances brought by the patient;
  - **open tests**: aimed at observing an immediate reaction, they are performed with the suspected urticaria triggering product;
  - **repeat open application tests**: a small quantity of the suspect cosmetic product is applied to the forearm 2 to 3 times a day until the appearance of a reaction (3 weeks maximum);
  - **use tests**: application of the suspect cosmetic under normal conditions of use.
Recommendations for all patients

To avoid recurrence of irritation

- Reduce and limit the number of hygiene products, particularly highly scented ones.
- Use cleansing bars without soap or non-detergent soaps which do not interfere with the hydrolipid film of the skin.
- Do not use pure products; do not mix products (liquid soaps, shampoos). Keep to the dilutions given by the manufacturer.
- Only use products of which the formulation is clearly indicated (hygiene products, cosmetic products). Rinse with warm water; dry gently.
- Choose natural textile fibres (cotton, linen, silk, wool) in preference to synthetic fibres which aggravate the irritation due to antiperspirants and deodorants.

What should be done to avoid irritant or allergic skin reactions?

- Choose products according to skin type.
- Use the products correctly, after reading the package insert carefully. In this way the majority of irritant reactions can be avoided.

Where allergy is confirmed by patch tests:

- Avoid contact
  - with the finished product responsible,
  - with the molecule known to be responsible (which is not always possible),
  - by any route: direct, indirect, distance, handborne, vicarious, airborne.

- Consult the avoidance lists (unfortunately not comprehensive) supplied by the doctor.

- Recognise, in the INCI nomenclature (International Nomenclature of Cosmetic Ingredients) – the only one given on the packaging – the names of substances corresponding to those which have tested positive.

If the patient is an adolescent allergic to certain substances or molecules (fragrances, balsam of Peru, para-phenylenediamine), it is preferable to avoid choosing 'at risk' professions, particularly in the case of a known personal history of respiratory or cutaneous atopic allergies (hairdressers, beauticians, perfume sectors, etc.).
The UCB Institute of Allergy

Division of UCB S.A., The UCB Institute of Allergy (IOA) is an independent, European and not-for-profit organisation, created in 1987 to combat allergy. In response to the international epidemic of this disease, the Institute's objective is to implement all the resources necessary to raise awareness of allergy as a major health issue amongst the general public, patients, health care professionals and public authorities.

Under the supervision of a Scientific Advisory Board made up of eminent European specialists in the field of allergy, IOA has initiated many actions. These aim to inform and educate about allergy, to improve prevention, to promote research, to analyse the current situation and to define key actions to be taken over the coming years. Moreover IOA favours cooperation between various allergy related organisations. The Institute is present all around Europe with 20 national sections and in South Africa.

The Institute’s web site (http://www.theucbinstituteofallergy.com) and central membership library provide members with current relevant information and publications about allergy. For the general public, schools and children, IOA has produced videos (e.g. “Who’s sleeping in your pillow?”, “Allergic: to be or not to be...Rhinitis”), educational games and other information material. IOA also organises and holds meetings, symposia, conferences, panel discussions and offers “Travel Grants & Scholarship Awards” to young researchers.

As a result of these activities, The UCB Institute of Allergy hopes to forestall the sobering prediction of certain epidemiologists: In 30 years’ time, everyone may be allergic... Unless we act now!

THE UCB INSTITUTE OF ALLERGY

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