The Cause and Treatment of Sensitive Skin

Science:

There are four main issues that lead to skin sensitivity

1. **Genetic pre-disposition**
2. **Dermatological Conditions (Eczema, Psoriasis, etc.)**
3. **Dry skin**
4. **Environmental Damage**

1.) Dr. Fitzpatrick has developed a scale that can help determine the reactivity of the skin to various situations. The scale is numbered 1 through 6. 1 being very light skin (skin can redden) and 6 being the darkest skin color (skin can pigment).

<table>
<thead>
<tr>
<th>Lightest: Skin, Eyes, and Hair</th>
<th>Lighter: Skin, Eyes, and Hair</th>
<th>Light: Skin, Eyes, and Hair</th>
<th>Dark: Skin, Eyes, and Hair</th>
<th>Darker: Skin, Eyes, and Hair</th>
<th>Darkest: Skin, Eyes, and Hair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin always burns in the sun.</td>
<td>Skin burns most always in the sun.</td>
<td>Skin occasionally burns in the sun.</td>
<td>Skin will slightly burn in the sun on occasion.</td>
<td>Skin will not easily burn in the sun.</td>
<td>Skin never burns in the sun.</td>
</tr>
<tr>
<td>Skin does not tan.</td>
<td>Does not tan easily</td>
<td>Skin will tan.</td>
<td>Skin will tan easily.</td>
<td>Skin can darken very easily</td>
<td>Skin will darken with any exposure to the sun.</td>
</tr>
<tr>
<td>N. European</td>
<td>N. European</td>
<td>European</td>
<td>S. European / Hispanic / Asian</td>
<td>Asian / Middle eastern / Polynesian</td>
<td>Equatorial</td>
</tr>
</tbody>
</table>

Skin is more sensitive to the sun, acids, chemicals, scrubs, fragrances, dyes, foods, rough fabric. Skin flushes easily with spicy foods, cold temperature, embarrassments. Skin is treated carefully until exact reactivity level is gauged.

Average skin types with the normal level of sensitivity to the sun, acids, peels, etc. Skin is treated with normal precautions.

Skin can pigment very easily. Skin is sensitive to pigment in response to injury or over sensitizing by acids, peels, sun exposure. Skin is treated carefully until exact reactivity level is gauged.
The scale is one of many evaluation points used to determine the sensitivity potential for a person.

2.) Dermatological conditions such as Eczema, Psoriasis, and Rosacea conditions that affect the skin in ways that require a dermatologist and special treatment. The barrier function is disturbed and the normal lipids and moisture is unbalanced. Chronic dry, red, rough, sensitive skin is the result. With Rosacea, there is a vascular concern that leads to even more reddening of the skin.

3.) Dry skin conditions that show symptoms of a tight, rough feel and dull appearance. Dry skin is noticed in the upper reaches of the epidermis known as the Stratum Corneum. The stratum corneum is comprised of many layers of dead skin and four distinct groupings, with lipids filling the spaces between. Roughly 80% of the body's epidermal cells are made of keratinocytes, composed of soft protein keratin. The epidermal cells are born in the lowest layer of the epidermis, the basal layer. As these cells rise toward the outer (horny) layer, they undergo many changes, including the increase in the amount of keratin they produce. By the time the cells reach the top, they are no longer alive, and are formed entirely of keratin. If the cells contain too little keratin, the appearance begins to look cracked and flaky as cells slough off. Keratin needs water to keep it pliable and healthy; when there is not enough water, the keratin crumbles and the cells can't stay together.

Additionally, the normal lipids (oils) found in the intercellular spaces (between skin cells) can become depleted due to menopause or other biological effects in the skin. With less normal lipid layers, more natural moisture can escape. This is what happens when the skin becomes dry. It's called Trans Epidermal Water Loss (TEWL). With less moisture, the skin becomes more vulnerable to the effects upon it. Dry skin is therefore considered to be more sensitive than oily skin. The oil acts as a barrier to outside assaults. In order to keep this from happening, a way must be found to keep water trapped in the skin, keeping the keratin healthy. Moisturizers are simply designed to act as the body's natural lipid layer and hold in the moisture the body constantly creates. The skin will be less sensitized if it can be kept highly moisturized.

4.) Environmental effects can also lead to sensitized skin. Chronic wind, cold, and the sun all play havoc on the skin barrier to the elements – the stratum corneum (the dead skin layer). As the body's natural defenses are bombarded with the elements, it can lose the moisture content and become dry and brittle. With the barrier function now disturbed, it can become vulnerable to the effects upon it.

Made Simple:
The Biophora clinical and home care programs are designed to address the skin sensitivity by providing less aggressive treatment options and by providing highly moisturizing products designed to infuse moisture deep into the upper reaches of the skin, calm and soothe irritated skin, and protect the skin from the daily harsh elements. By balancing the skin’s barrier function with highly moisturizing, non-sensitizing ingredients, and allowing the skin to become more tolerant, the Biophora program will gradually allow a person to experience less sensitivity and have the healthy, calm, soothed skin they have always desired.

- **Calming Cleanser** – A gentle, ph balanced cleanser designed to remove oil, dirt, debris, make-up, and available dead skin cells on the surface of the skin, without drying or irritating the skin.
- **Calming Toner** – Moisture infused gentle toner, designed to further cleanse the skin. It calms, and soothes dry, irritated skin, leaving it refreshed, and smooth, with better tone.
- **Antioxidant Moisturizer & DermaRich Moisturizer** – Allantoin, Sodium Hyaluronate for moisture infusion and calming effects. Vitamin–E & A enriched for antioxidant purposes, Beta Glucan for skin immunity boosting effect. Leaves the skin silky smooth, calmed, and moisturized all day.
- **Light Hydration** – a weightless serum, containing active ingredients to stimulate production of Collagen, Elastin, Fibronectin and Glycosaminoglycans – elements that bind tissue and hold in the moisture of the skin, helping to increase circulation and cell respiration while firming, nourishing, protecting and healing the skin.
- **Night Protection** – Cosmetic silicone (Cyclomethicone and Dimethicone) designed to prevent moisture loss and keep the skin’s own moisture it produces intact. A synthetic skin barrier to keep the moisture in and the harmful effects out.
- **Antibacterial Veil** – Triclosan for surface and pore follicle antimicrobial actions. Cosmetic silicone (Cyclomethicone and Dimethicone) designed to prevent moisture loss and keep the skin’s own moisture it produces intact. A synthetic skin barrier to keep the moisture in and the harmful effects out.
- **Daily Protection SPF 30** – Aloe–Vera rich, chemical free, antioxidant, broad–spectrum – UVA UVB, physical sun protection to prevent environmental damage. Will hydrate and protect the skin without a greasy feel. The absence of chemical sun screen agents eliminates irritation.
- **Enzyme Exfoliating Mask** – Papain and Bromelain digestive enzymes, soft exfoliating granules (Diatomaceous Earth) used for occasional gentle enzymatic exfoliation of the skin surface and pore follicle. A great "acid free" exfoliation mask.