About Contact Allergy

The term refers to unwanted allergic reactions of the skin, mouth or genitalia resulting from direct contact with an allergen. Bad reactions to allergens that enter the body by another route, such as inhalation, eating or injection are not contact allergy, even though the immune response may be similar and may involve the skin.

There are two main types of contact allergy: contact urticaria and contact dermatitis. To confuse matters a little, both of these patterns may look similar whether they are caused by the immune system or not. In contact urticaria the reaction may be due to a reaction between an allergen and a specific immune protein called IgE on specialized skin mast cells, which then release their histamine to cause an itchy swelling, or non-allergic due to direct penetration of chemicals, like histamine in a nettle sting or absorption of chemicals like food flavours or preservatives in cosmetics.

Contact dermatitis also has allergic and non-allergic causes. In contrast with contact urticaria, which develops more or less immediately after contact with the eliciting substance, contact dermatitis develops after a longer time of exposure to the causing substance (usually hours or days). Allergic contact dermatitis results from penetration of chemicals or proteins through the skin that attract immune blood cells called lymphocytes into it. This can only happen if the lymphocytes have been activated by previous exposures to the chemical or protein so they can recognize it in sufficiently large numbers to cause inflammation.

Some of the most common allergens that cause contact dermatitis are nickel, cobalt, potassium dichromate, chemicals used during the manufacture of rubber, permanent hair dyes, biocides used in cosmetics, toiletries and some dermatological creams, some topical antibiotics or fragrances.

Its non-allergic counterpart is called irritant contact dermatitis. This is caused by chemicals penetrating the outer layer of skin called the stratum corneum, which normally provides a natural barrier, resulting in localized eczematous inflammation. The barrier function of skin is very important for health. It can be damaged by repeated exposures to substances that take out the natural fats, such as detergents, soaps and solvents, which are present in so many household and personal skin care products that are used every day. In fact, irritant contact dermatitis is more frequent than allergic contact dermatitis. It is more common in patients with a tendency to atopic eczema, asthma or hay fever and in those with certain occupations, such as looking after a household, hairdressing, nursing and car mechanics.