Contact allergies and irritations – do detergents and cleaning products play a role?

Many detergents and cleaning products contain perfumes and preservatives. Some of these substances can trigger allergies. Avoiding allergic diseases is of outstanding importance to manufacturers of detergents and cleaning products. They carry out safety assessments of ingredients and end products. Success is visible, because allergies are triggered only in extremely rare cases by detergents and cleaning products, fabric softeners, stain pretreatment products or washed laundry. This is also confirmed by experts from the German allergy and asthma association Deutscher Allergie- und Asthmabund e. V. (www.daab.de) and the Information Network of Departments of Dermatology Informationsverbund Dermatologischer Kliniken (see below).

Informationsverbund Dermatologischer Kliniken (IVDK) collects data on allergies from ca. 50 dermatological hospitals in Germany, Austria and Switzerland. The center of the IVDK is located at the department of dermatology at the University of Göttingen.

The IVDK wants to reduce the number of allergic diseases and thus prevent public health from damage. Results from the IVDK serve as advice for regulatory authorities, statutory accident insurances, professional associations, industry and the media.

Further information about the IVDK is available on the internet at www.ivdk.org.

Explanation of technical terms

Allergens are natural or synthetic substances, which can trigger undesirable hypersensitivity reactions of the endogenous defence system: the immune system of allergic individuals overreacts to substances, which – unlike e.g. bacteria or viruses – do not endanger health generally. This is called sensitisation.

The period of time for the formation of an allergy is called sensitisation phase. It is the first immune reaction of a person to contact with an allergen. Often, the sensitisation phase happens without visible symptoms and goes unnoticed by the impacted person. An allergic reaction only occurs after another contact with the allergen, even in low concentration.

Contact allergies are allergic skin symptoms (itching, papules, inflamed redness), which become manifest hours or days after contact with an allergen. The allergic reaction is usually limited to that skin area which came into contact with the allergen.
Skin irritations often have similar symptoms like allergic reactions (e.g. reddening or itching). They are strictly limited to that skin area which came into contact with the irritating substance. Irritations are fundamentally different from allergic reactions: irritations become manifest within minutes or few hours after contact with the skin-irritating substance; also without previous sensitisation. Skin-irritating substances usually need to be present in higher concentrations for causing an irritation.

What are manufacturers of detergents and cleaning products doing to prevent the formation of allergies?

As regards the term prevention, a distinction is made between primary and secondary prevention.

In respect of contact allergies, primary prevention means to manufacture detergents and cleaning products in such a way that skin contact cannot lead to sensitisation and thus not to allergic reactions. Primary prevention takes place as early as in the development of formulations. Preference is given to ingredients which do not cause sensitisation. Some ingredients with a certain sensitising potential (e.g. preservatives or perfumes) are only used far below those concentrations which could lead to sensitisation.

Secondary prevention is avoiding contact with allergens.

What can allergic persons do to get information about ingredients of detergents and cleaning products?

Persons, who react allergically to one or several substances and are aware of these substances, should avoid products containing these ingredients. The reason: even if the allergy was not acquired through a detergent or cleaning product, a sensitised person can react allergically to certain substances in detergents or cleaning products. The formulation of the detergent or cleaning product is available at an internet address displayed on the product packaging. Where applicable, the names of preservatives present in the product are additionally stated on the product packaging, too. Also stated on the packaging are the names of 26 perfumes if they are present in volumes of over 0.01% in the end product.

For more information visit: www.forum-waschen.de
Irrespective of the above, skin complaints can arise in the use of textiles after application of detergents or fabric softeners. Mostly, these are not allergies to detergents or fabric softeners but:

- **Allergies and intolerances to dyes or finishing substances in textiles or on metals** (e.g. buttons or zip fasteners), or
- **Irritations caused by detergent residues** on laundry, due to heavy overdosing of detergents together with use of highly water-saving washing machines or wash programmes.

The dosing of detergents depends on water hardness and the degree of soiling of the textiles; dosing is stated on the detergent packaging. Reference value for heavy-duty or colour detergents: 4.5 kg of dry laundry; for mild detergents: 2.5 kg of dry laundry.

Further relevant information is provided in the leaflet “Richtiges Dosieren” at [www.forum-waschen.de](http://www.forum-waschen.de).

Other intolerance reactions which can occur in individual cases:

- Skin irritations or – even rarer – allergic skin reactions in the handling and use of cleaning or dishwashing products.
- Irritations or – again, even rarer – allergic reactions of the respiratory system, e.g. where perfumes from detergents or fabric softeners get into the air when ironing.

Preservative- and perfume-free products are available to avoid such reactions.

Washing laundry and cleaning living space decisively contribute to reducing allergy burdens in the living environment of allergic persons. One example is the reduction of allergens from house dust mites, which occur particularly in bedclothes, bedding and mattresses.

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- Gesellschaft Deutscher Chemiker e. V., Fachgruppe Chemie des Waschens (German chemical society, expert group washing chemistry)
- Gesundheitsamt Bremen (public health authority Bremen)
- Hauptausschuss Detergenzien/HAD (main committee detergents)
- HEA – Fachgemeinschaft für effiziente Energieanwendung e. V. (organization for efficient energy application)
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- Industriegewerkschaft Bergbau, Chemie, Energie/IG BCE (mining, chemical and energy industrial union)
- Industrieverband Körperpflege- und Waschmittel e. V./IKW (German cosmetic, toiletry, perfumery and detergent association)
- Informationsverband Dermatologischer Kliniken/IVDK (Information Network of Departments of Dermatology)
- Institut für Markt-Umwelt-Gesellschaft e. V./imug (marketing/market research institute)
- Institut für ökologische Wirtschaftsforschung/lÖW, gemeinnützig (institute for ecological economy research, non-profit)
- Öko-Institut e. V. (institute for applied ecology)
- SEPAWA/LUV (association of soap, perfume and detergent experts)
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- Universität Bonn – Sektion Haushaltstechnik (Bonn university, domestic appliances section)
- Universität Oldenburg – Lehrstuhl für Produktion & Umwelt (Oldenburg university, chair of production & environment)
- Verbraucherzentrale Bundesverband e. V. (vzbv) (federation of German consumer organizations)
- Verbraucherzentrale Sachsen-Anhalt e. V. (consumer organization Saxony-Anhalt)
- World Wide Fund For Nature Deutschland (WWF)
- Zentralverband der Elektrotechnik und Elektroindustrie e. V./ZVEI (German electrical and electronics industry association)

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