

Household irritants factsheet

Eczema can be triggered by many things in the environment and people with eczema usually have a number of different triggers. This factsheet provides information and advice about avoiding, or reducing exposure to, the most common irritants that you might come across in the home. It's important to be aware that many household irritants, including house dust mites and pollen, are impossible to eradicate or avoid completely. This means that managing your triggers isn't a substitute for eczema treatments.

House dust mites

House dust mites are tiny creatures found in household dust. They are so small they can't be seen by the naked eye. It is not the mites themselves, but the protein in their droppings that can cause problems for people with atopic eczema. House dust mite droppings are unlikely to be the main cause of eczema, but eczema can sometimes be made worse if you are allergic to them.

Research has shown that even with regular, thorough cleaning, you can't reduce the number of house dust mites in a home to a level that would have a significant clinical benefit for eczema. However, we hear from people with eczema who feel that reducing the amount of dust in the home is beneficial for them.

House dust mites are found in the largest numbers in mattresses and other items of bedding, which contain a good supply of their main food source – flakes of skin that we all shed. House dust mites are also found in clothes, carpets, curtains, soft furnishings and soft toys.

To reduce the amount of dust in your home, take the following steps:

- Vacuum carpets and soft furnishings once a week, paying special attention to the seams, where there are high levels of house dust mites.
- Wash/dry-clean curtains and cushion covers on a regular basis (if washing, the temperature needs to be at least 60°C to kill the mites).

- Consider having soft furnishings that can be wiped down, such as vinyl or leather. If you are sure that house dust mites are a trigger for you, you might also think about replacing curtains with roller blinds to reduce dust carriage. If you or your child has severe eczema, you might wish to replace carpets with a seamless floor such as resin or linoleum. Wood, vinyl or laminated flooring can easily be cleaned by mopping or steam cleaning.
- If your child plays on a carpet, place a protective cotton sheet over the play area (a cotton-covered cushion or cotton blanket for the carpet at nursery or primary school is also a good idea).
- Wipe hard surfaces with a damp duster or mop.
- Air the bedroom and living room daily to reduce humidity, thereby making them less attractive places for the mites to live. If your home is very humid, you may wish to invest in a dehumidifier.
- It might help to keep ornaments and items such as books in enclosed display cupboards rather than on open shelves, which attract dust. Likewise, store toys in a toy box or cupboard and, ideally, avoid keeping soft toys in a child's cot or bed.
- Soft toys should be washed regularly according to the instructions on the label (but please note, the temperature needs to be at least 60°C to destroy the mites). A good way to destroy house dust mites on a non-washable cuddly toy is to place it in the freezer.

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(in a plastic bag) for at least 24 hours. Freezing kills house dust mites but you will still need to brush the toy afterwards (at a distance from the child) to remove the droppings.

- Wash bed linen at 60°C or more. Tumble drying on a hot setting will also help to destroy house dust mites.
- Fit the mattress, pillows and duvets with anti-dust mite covers if the eczema is severe – please note, however, that these can be costly.

Pets

Animal dander (shed skin cells), saliva and fur can all be irritants. Aside from avoiding too much physical contact with animals and washing hands after stroking them, the following tips can help:

- Vacuum and damp dust regularly.
- Train your cat or dog to use its own pet bed/basket rather than your sofa.
- Ban pets from bedrooms and do not allow them to lie directly on soft furniture. For example, place a pet blanket, which can be removed, shaken and washed regularly, on the pet's favourite armchair and avoid sitting in that particular chair yourself.
- Brush pets regularly to remove loose fur, including allergens such as grass pollen, which can become attached to their coats.
- It can take up to 8 weeks for a pet allergen to be reduced within the home, so short-term rehoming of pets is not worth trying.

Pollens and moulds

These allergens are often airborne and can easily find their way into the home. Grass, weed and tree pollen can be especially problematic in the spring and summer. In the autumn, moulds release tiny seeds called spores into the air, which can trigger eczema symptoms. Mould spores are found in any damp place – from piles of autumn leaves and woody areas to steamy bathrooms, kitchens and even piles of damp clothes. Although moulds are dormant outdoors in the winter, indoors they

may be active if the air is sufficiently warm and humid.

- If your eczema gets worse in the pollen season, try to keep doors and windows closed on days when the pollen count is high (or if you can hear the sound of lawnmowers).
- Again, if your eczema is affected by pollen, avoid hanging clothes and bed linen outside to dry. Dry them inside, where there will be less pollen in the air.
- Consider whether any houseplants or their compost are triggering your eczema.
- Vacuum and damp dust regularly.
- Avoid mould forming by ensuring your home is well-ventilated, and keep air temperature at 15°C or above (18°C is ideal).
- Treat any areas of damp and mould with diluted bleach solution at the first opportunity.

Food preparation

Certain foods can cause irritant contact dermatitis. Common culprits include citrus fruits, raw onions, garlic, tomatoes, peppers and chillies.

- Try to avoid handling irritant foods, or wear protective gloves when doing so (use cotton liners with rubber gloves).
- While Covid-19 remains a threat, wash hands with soap and water for 20 seconds before food preparation (and generally). The Covid-19 virus is not fat-soluble so it will not be removed by washing with emollients alone. If you have hand eczema, any residual soap will aggravate the eczema, so wash your hands again with your emollient. Then pat them dry with a soft towel and re-apply emollient.

Central heating and humidity

Central heating reduces humidity and dries the skin, making it itchy. However, high levels of humidity can encourage dust mites and the growth of mould, which can both be triggers for eczema. Many people overheat their homes in the winter months and being too hot is a common trigger for itching. Changes of

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temperature – moving between indoor warmth and outdoor cold – can also be a trigger.

The following tips may help:

- People with eczema generally find radiators preferable to convection heaters.
- Keep all the rooms in your home at a regular temperature (18°C is ideal). Turn off the radiator in the bedroom at night or set an individual thermostat to 18°C.
- Dress in thin layers that you can remove if you get too hot.
- Keep the home well-ventilated in the winter.
- Maintain humidity levels between 30-60%. Consider using a humidifier or place bowls of water under radiators if your home is on the dry side (low humidity). To measure the levels of humidity in your home, you could buy a hygrometer.

Cleaning

Regular cleaning can help to remove dust and other allergen particles that can make eczema worse. The choice and use of cleaning equipment and products can make a difference.

- Use a high-efficiency vacuum cleaner with excellent filtration and suction power – possibly labelled as suitable for allergy (i.e. with special filters for tiny allergen particles); or, if you have pets, manufactured to remove pet hair effectively.
- Standard vacuum cleaners tend to beat into the carpet and stir up dust, so you need a vacuum cleaner that keeps dust within the machine (i.e. one that has a low-dust exhaust).
- Some people find that vacuum cleaners that use disposable dust bags are preferable to a cylinder vacuum cleaner that you have to empty, thereby exposing you to dust. Perhaps you could ask someone without eczema to empty the cylinder into a bag outside the house and put it straight into the dustbin.
- Remember to clean/change the vacuum cleaner filters regularly.

- If possible, keep the person with eczema out of the room when vacuuming.
- Damp dusting (using water on the duster) is preferable to dry dusting as it prevents dust from being transferred from one place to another.
- Household cleaners, detergents and sprays, whether in liquid form or as airborne particles, can irritate the skin of people with eczema. In particular they can cause a type of eczema called irritant contact dermatitis (ICD). People with a history of atopic eczema are more likely to have sensitive skin and are therefore more vulnerable to ICD. If you are sensitive to regular cleaning products, try using 'old-fashioned' agents – white vinegar (as an alternative to a proprietary glass cleaner), bicarbonate of soda (as an alternative to bleach) and soda crystals (as an alternative to bathroom/kitchen cleaners) – as they do not contain added chemicals and preservatives.
- Steam-cleaning is especially good for cleaning wooden or tiled floors and hard surfaces as it avoids the need for chemicals that can irritate the skin.
- If your housework routine involves regularly putting your hands in water or in a combination of water and detergent, this is likely to irritate your eczema and cause ICD, especially if you do not dry your hands properly or apply your leave-on emollient after drying. It is advisable to wear protective gloves while doing housework. Rubber or PVC household gloves with a cotton liner or worn over 100% cotton gloves should suffice. Gloves are important not only to protect the hands but to prevent chemicals collecting on the fingers under rings.

Choice of bedding

The choice of bedding for people with eczema is important on two counts: maintaining a comfortable temperature and reducing exposure to house dust mites.

- Try to avoid sheets, pillowcases and duvet covers made from synthetic fabrics. Bedding covers that are made from 100% cotton are more comfortable as they are breathable, sweat-absorbent and less likely to cause overheating.

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- Use low-tog duvets and/or cotton cellular blankets – even in the winter months – to prevent night-time overheating. Several light layers that you can put on/take off the bed can help you maintain an even temperature and be less prone to itch.
- Pillows and duvets made from synthetic materials are easier to wash and dry than those containing feathers. They are also less likely to provide a breeding ground for house dust mites.

A number of companies produce ‘anti-allergenic’ bedding covers. However, these can be expensive, so you may wish to consider them only if your eczema is severe. The idea behind these products is to prevent skin scales from entering the mattress and providing food for house dust mites, while also preventing the person from coming into contact with the potentially allergenic droppings of the mite. In order to be truly effective, these measures need to be combined with the use of a high-powered vacuum cleaner, damp dusting and adequate ventilation. Choose a cover that totally encases a mattress/pillow. It should have a British standard mark, indicating water permeability and breathability, with an index greater than 75%. Ask the following questions when considering purchasing bedding covers:

- Have trials/tests been carried out into the product’s effectiveness?
- How long do the covers offer protection from house dust mites?
- What quality control standards (e.g. strong seams, fire resistance) do the covers adhere to?
- Are covers washable, and will they withstand high temperature washes?

National Eczema Society does not endorse any one product, as what suits one person with eczema may not suit another. A selection of suppliers of barrier covers for mattresses, pillows and duvets is listed below:

Alprotec

Tel: 0161 998 1999
www.allergy.uk.com

Greenfibres

Tel: 01803 868001
www.greenfibres.com

Healthy House Ltd

Tel: 01453 752216
www.healthy-house.co.uk

Allergy Best Buys

Tel: 01274 565699
www.allergybestbuys.com

Silent Mites

Tel: 0800 458 6794
www.silentmites.co.uk

John Lewis

www.johnlewis.com

Laundry

There is an assumption that non-biological washing powders and liquids are the safest thing for people with eczema to use, and that fabric conditioners can irritate eczema. However, there is no scientific evidence that the enzymes in biological washing powders and liquids make eczema worse. Nevertheless, many people feel that their skin does react to them and for this reason prefer to use non-biological products.

Fabric conditioners leave a residue in the items that have been washed and rinsed. They make material feel softer, but softness is not essential for many people, so using a fabric conditioner with potentially irritant ingredients (fragrance and other chemicals) can be seen as unnecessary and even harmful to the skin. Some people with eczema do find that they can tolerate the newer, unperfumed fabric conditioners.

The following suggestions can help:

- An alternative method of doing the laundry is to use Ecoballs. Instead of detergent, they use cleaning pellets to ‘liff’ out the dirt during the wash cycle. However, white clothes can be left looking ‘greyish’.
- Avoid overloading your machine, as this stops the clothes getting washed and rinsed properly.

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- Fabric conditioner used on towels reduces their absorbency. However, if you use just a little fabric conditioner for every other wash, your towels will feel soft but remain absorbent.
- Do not use more powder or liquid than necessary, and follow the manufacturer's instructions.
- Use a double rinse cycle (called a 'baby cycle' on some machines) to make sure no traces of detergent are left on your clothes.
- It is best to wash items before they get too dirty, to avoid clogging up your machine with emollient. A build-up of emollient from clothes and bedding may damage the rubber seal of your washing machine over time. To help prevent this, once a month do an empty wash at 90°C, using a biological washing powder or 300–500g of soda crystals. Take care not to let these touch your skin.
- If you wash clothes by hand, make sure the detergent is properly dissolved in the water, and take care of your hands by using protective gloves. Better still, invest in a machine with a hand-washing programme.
- When trying a new washing powder, wash only a few articles at first to see whether it affects your own or your child's skin.
- Wash bedding at a temperature setting of 60°C or more and tumble dry on a high heat to destroy house dust mites.
- Leave the washing machine door open after use, to air it and reduce the likelihood of mould developing.

DISCLAIMER

Our publications contain information and general advice about eczema. They are written and reviewed by dermatology experts, with input from people with eczema. We hope you find the information helpful, although it should not be relied upon as a substitute for personalised advice from a qualified healthcare professional. While we strive to ensure the information is accurate and up-to-date, National Eczema Society does not accept any liability arising from its use. We welcome reader feedback on our publications, please email us at info@eczema.org

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