

## Eczema: Does eliminating particular foods reduce the symptoms?



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Eczema is a common, non-infectious skin condition. If someone has eczema, their skin becomes dry, red, itchy and cracked. Sometimes they will have oozing blisters too. Over time, the affected skin may become thick.

The most common places to get eczema are inside the elbows and knees, and on the face and neck. It usually affects only small areas of the body, but for some people it is more severe and is spread further around the body.

Eczema often comes in bouts: sometimes the symptoms are better, and sometimes they are worse. They may even disappear altogether for a while. Some people's eczema is triggered by certain substances (allergens), such as dust mites or pollen. Irritants like soaps, cold weather, cigarette smoke or woollen clothes can make it worse. Stress does not cause eczema, but it can make it worse.

Eczema is also called "atopic eczema" or "atopic dermatitis". The word "dermatitis" means inflammation of the skin, and "atopic" means that the condition could be associated with an allergic reaction. But that is by no means always the case: It is estimated that up to two out of three people with eczema have a "non-atopic" form of the condition, which means it is not related to a specific allergen.

Having eczema can be very stressful. It often disrupts sleep because the skin is itchy at night too. If small children have eczema, everyday family life is usually affected.

We are currently working on fact sheets for adults who have eczema and for the parents of children with eczema. These will include more detailed information about the condition and the different treatment options. As soon as they go online we will let you know here.

## **Eczema usually starts in babies – the cause is not clear**

Eczema usually starts in the first six months of life. As many as 2 out of 10 children in countries like Germany are believed to have eczema (20%). At this age it is mostly mild. Eczema will usually improve or even disappear completely in around 70% of people before the age of 15. About 2 out of 100 adults (2%) have eczema, and it is often more chronic and severe in adults.

The causes of eczema are not fully understood. Genes probably play an important role because it often runs in families. It is also thought that factors like environmental pollution play a role too.

Eczema has become more common in the last few decades, although it is not clear why. You can read about what can help prevent the development of eczema and allergies in babies and small children here (URL: <http://www.gesundheitsinformation.de/fact-sheet-preventing-allergy>).

## **Elimination diets for eczema**

Food hypersensitivity – reacting to foods – might be the first step in developing food intolerance or later allergic conditions. Many people try to relieve their eczema symptoms by avoiding certain foods, such as eggs or cow's milk. This is known as an "elimination diet" or "exclusion diet". Some people exclude a lot more than just one or two foods from their diet.

It is usually hard to stick to this kind of diet, particularly for children, for example if they are not allowed to eat cake or other treats. Small children may find it difficult to understand why they cannot eat certain things that other children are allowed to eat. It is important that people who are on elimination diets make sure that they still get enough nutrients, minerals and vitamins.

## **Research on elimination diets for eczema**

Bouts of eczema come and go, and the severity of symptoms varies over time. This means that it is easy to get the impression that something is having an effect on eczema when the eczema would have got better (or worse) anyway. Eczema often disappears completely on its own in children and teenagers, although it is not clear why. The condition is affected by a variety of factors, not just diet.

To be sure whether or not elimination diets can help people who have eczema, formal research trials are needed to test what happens when people with eczema exclude foods from their diets. In randomised controlled trials, volunteers with eczema are randomly split into two groups by the researchers. The research participants in one group are asked to keep eating their usual diets, while those in the other group are asked to go on a special diet.

Researchers from the Cochrane Collaboration looked for trials studying elimination diets and whether or not they had any effect on eczema symptoms. The Cochrane Collaboration is an international organisation of researchers who critically review the results of trials.

The researchers found 9 trials that had studied diets for eczema. Six of these looked at diets that avoided eggs and milk. Two trials looked at a liquid formula diet containing only a few select nutrients. Certain proteins in this formula had been broken down to try to stop them from causing allergic reactions. One trial looked at a diet that had been reduced to include only a few foods.

Most of the trials involved babies and children, and only two trials looked at adults. All in all, the trials were relatively small: the number of participants ranged between 11 and 85 people per trial. There were also other problems with the trials. For example, in some of them the participants often did not stick to the strict diet properly. Only 2 trials followed people for longer than 6 months. In half the diets that excluded milk, soya-based milk substitutes were used. But other research has shown that cows' milk alternatives like soy milk can also sometimes cause allergies themselves, so this limits the value of the information from these trials. You can read more about that here

(URL:

<http://www.gesundheitsinformation.de/allergy-and-food-intolerance-can-soya-baby-formulas-prevent-them.474.38.en.html>)

## **Cautious conclusions: Elimination diets may only help people who have an established food allergy**

Eight of the nine trials did not find a clear difference between the groups of people who were on a special diet and those who were not. However, most of the participants had not been tested to see whether they had a food allergy in the first place. The researchers concluded that avoiding certain foods probably does not help people with eczema if they are not allergic to those foods.

The other trial studied babies who had been given a blood test before the trial started which showed that they may have an allergic reaction to eggs. In this trial one group of babies had an egg-free diet for 4 weeks, whereas the other group had a normal diet. It was found that those babies who were put on an egg-free diet had less eczema than those in the other group. However, this trial only involved 62 babies. The Cochrane researchers also identified several problems that limit the certainty that other babies with eczema would have the same results from cutting out eggs.

To find out whether someone's eczema is being affected by a food like eggs, a so-called skin prick test can also be done. This involves putting a small amount of a suspected allergen on the skin and using a tiny needle to prick the skin, usually only lightly so that it does not bleed. A reaction to the allergen on the skin can indicate whether the person is allergic to it. We will inform you about other tests and explain how they work in the two soon-to-be-published fact sheets.

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## Glossary

### Cochrane Collaboration

The Cochrane Collaboration is an international network of thousands of researchers and others. They work together in teams called Cochrane Review Groups to answer questions about health care by doing systematic reviews of evidence. To achieve this, the members of the Collaboration have developed systems and methods for systematically finding and analysing the results of trials of health care interventions. The goal of the Cochrane Collaboration is to help patients, health care practitioners and others make more informed decisions about health care. You can read more about the Cochrane Collaboration at their website.

### allergy

An allergy is the body's overly sensitive reaction to a foreign substance. The body produces antibodies just as it would if the substance were a germ, although it is not dangerous to the body. The symptoms of the allergy partly depend on the substance causing it, the allergen. People with allergies often have symptoms like running nose, watery eyes, itching, rashes, stomach and bowel problems or asthma. Typical allergens are pollen, animal hair, proteins in certain food or house dust mite excrement.

### inflammation

An inflammation is a (defense) reaction of the body to an injury, irritation or infection. More blood is brought to the respective body part to protect the body. This is why this body part feels warmer, becomes swollen and red and is usually more sensitive. If the inflammation affects the mucous membranes, they secrete more fluid than usual. This helps to wash out the germs that have entered.

## Sources

Bath-Hextall F, Delamere FM, Williams HC. Dietary exclusions for established atopic eczema. *Cochrane Database of Systematic Reviews* 2008, Issue 1. [Cochrane summary (URL: <http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD005203/frame.html>) ]

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## **The German Institute for Quality and Efficiency in Health Care (IQWiG)**

The German Institute for Quality and Efficiency in Health Care (IQWiG) was established by legislation to provide evaluations of the effectiveness, quality and efficiency of healthcare services. This includes the assessment of medicines as well as the publication of health information for consumers and patients.

## **Evidence basis of our health information**

Our information is based primarily on systematic reviews of the effects of health care. Systematic reviews are necessary to gain an objective picture of health care. In order to do this, a clear question is formulated. Researchers then find all the relevant studies that could answer this question. They then evaluate those studies.

You can find a list of the evidence and other scientific literature on which this information is based at **[www.informedhealthonline.org](http://www.informedhealthonline.org)**

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