

FACTSHEET



Eczema affects 5 million children and adults in the UK every year.

The Society is the only organisation in the UK devoted to improving the quality of life for people with eczema and their careers.

The Society provides practical support and information on the day-to-day management and treatment of eczema including:

- Confidential telephone and e-mail Helplines
- Fact sheets and information booklets
- Members' information pack and quarterly magazine

The Society also funds vital research into the cause and treatment of eczema and campaigns to influence health services for a better understanding of eczema and its effects.

The National Eczema Society receives no Government or Health Service funding.

The Society relies entirely on donations, legacies and membership subscriptions to fund this vital work.

Diet & Eczema in Children

It has been known for many years that what children eat may have an effect on their eczema. There has been an ever-increasing interest in the part that diet plays in the development and cause of atopic eczema. It is, however, only in the last ten to fifteen years that the reason why food may trigger eczema has been better understood.

Many parents will look to diet as a potential treatment for their child's eczema as it seems on first thought an easy thing to change. It also allows parents to feel in control, to some extent, of the treatment of their child's eczema.

However, diet and eczema is a complicated subject and one that can create as many problems as it attempts to solve. This fact sheet aims to give the facts about diet and eczema by looking at why eczema may be affected by diet, how diet can be used in the management of eczema, and also looking at the prevention of eczema by using diet.

Introduction

Eczema can be triggered or exacerbated by a great many things in our environment, including the house-dust mite, grasses and pollens, stress and eating certain foods.

It is thought that in about 30% of children with eczema, food may be one of the causes, but a much smaller group than this (about 10%) will have food as their main or only trigger. This means that only a small number of children with eczema are helped by changes in diet and, even in those who are, they will still need to use a good skin-care routine to protect against other triggers. In other words, it is rarely diet alone that triggers eczema.

How does food trigger eczema?

There are three main ways that food can affect eczema.

Itching, rubbing and scratching

In some children the itching gets worse after eating certain foods. Feeling itchy causes children to rub and scratch the skin which in turn causes skin damage, inflammation, infection and the eczema to worsen and become more itchy. An obvious sign is redness, swelling and irritation around the mouth.

Immediate food hypersensitivity

This is a reaction that can happen very quickly after eating certain food. Skin symptoms include urticaria (nettle rash), swelling and redness.

The reaction happens from five minutes to two hours after eating the food. Although skin symptoms often happen, other symptoms such as vomiting, abdominal pain, wheezing, itchy eyes and sneezing may also occur.

The most severe type of this reaction is called anaphylaxis. It happens very quickly and can affect breathing and cause loss of consciousness (although this is very rare).

Delayed food hypersensitivity

This is when symptoms happen two to twenty-four hours after eating the food and can last for several

hours or longer. Common symptoms are increased itching and eczema and/or abdominal pain and diarrhoea.

Is food a trigger of my child's eczema?

Testing and diagnosis

Sadly there are no tests that are 100% reliable for which foods can be triggers of eczema. As you have read, food can produce different types of reactions in the skin and no one test can tell clearly the extent to which food is having an effect.

Observation

Watching your child closely and writing down changes in the skin is the first step. Most children with immediate type food reactions will benefit from having a specific IgE (blood) or skin prick test. Seeing a delayed type reaction on the previous day). A diary, keeping a record of eczema, scratching, sleep and all food and drink eaten over a period of four to six weeks can sometimes be useful to help find the food problem.

Skin prick test

This is a test that can help to diagnose an immediate type food hypersensitivity reaction. Small drops of food extract are placed onto the skin (usually the forearm) and a small scratch or prick made. If the area comes up red and itchy (a bit like an insect bite) it confirms that the substance which triggers a reaction is present in the skin.

However, in children under one year old, skin prick tests can sometimes give the wrong results, but are still worth doing. The test is not easily done on skin with severe eczema.

80% of children with eczema will show positive skin prick tests, but only 30% will have any symptoms after eating that food. In other words, there is a high chance of a false positive result.

The test can only help to show an immediate type food hypersensitivity whilst eczema is more likely to be a symptom of delayed type food hypersensitivity – although it may later change from being a delayed symptom to an immediate symptom.

Children can outgrow their sensitivity to food in one
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to three years but skin prick tests can remain positive for another five years or longer.

Blood test (sometimes called specific IgE antibody test or RAST)

This measures the amount of antibodies (the substance causing a reaction to food) in the blood. If there is a high level it is more likely that food may cause a reaction.

If there is a low or negative level it is unlikely that food causes symptoms. Like skin prick tests, the specific IgE test can often give a wrong result and can only look at a small number of foods.

The above two tests may be carried out in a hospital clinic, but will only give a guide as to which foods may be triggers and should not be used as a definite diagnosis.

Other tests

Other tests claiming to diagnosis food allergies and food intolerance are easily found and are often advertised in magazines, health food stores and by complementary practitioners.

Examples include Vega testing, kinesiology or sending blood samples by mail order. These tests are expensive, have no scientific basis and are not recommended by the medical profession.

They sometimes recommend diets that do not contain the nutrients growing children need, or offer expensive vitamin/mineral mixtures that are unsafe or in the wrong doses for children.

Exclusion and challenge procedure

This is the best way of finding out whether a food is a trigger of eczema. It involves:

- Removing all sources of the suspected food or foods for two to six weeks to bring about an improvement in the eczema.
- Giving the child the suspected food to bring about a return (or worsening) of the eczema.
- Removing the suspected food trigger again to bring about the improvement in symptoms for a second time. This procedure must be supervised by a dietician.

Diet as a treatment for atopic eczema

Finding out if food is a trigger of eczema is often difficult due to many other factors affecting the skin. This, along with the fact that only a small number of children with eczema are helped by diet, has resulted in some doctors being unwilling to try diet as a treatment.

Getting a child to eat well can be difficult - refusing a child food can be worse and no parent should subject their child to a restricted diet without asking these key

questions:

Is the eczema severe enough for diet to be tried?

Diet should only be tried when the eczema is bad enough to be causing distress to the child and significant added stress to the family.

Children whose eczema is controlled by emollients and a mild topical steroid cream do not need to alter their diets unless there are other symptoms (such as vomiting, diarrhoea or more severe symptoms).

However, children who are constantly scratching, with moderate to severe eczema that is not improving with treatment, may be helped by trying an exclusion diet, especially those less than three years of age.

If diet does not help then the child should always go back to a normal diet and further options for skin treatment should be explored.

Is help and support available?

Diets in children with eczema should never be tried without proper supervision. Seeing a dietician is very important to make sure that:

- the diet is followed properly and parents know how to check labels;
- the right diet is tried;
- the diet chosen is nutritionally correct, and
- recipes and ideas for meals and snacks are available along with help in arranging school meals.

All dietitians working in the NHS are formally qualified. You may find it helpful to see a dietician with experience in treating children (a paediatric dietician) or one specialised in the management of allergies. Your GP or hospital doctor can refer you.

What are your expectations?

Dietary treatment will not 'cure' your child's eczema. You will still need to apply emollients and some topical steroid creams every day. However, when eczema is at its worst, diet may make it easier to manage, reduce redness and scratching, and improve sleep.

If the diet helps, you will need to cope with cooking different meals for the family. You may also have to deal with your child's behaviour and tantrums over not being allowed favourite foods. How difficult a special diet is to cope with will depend on the number of foods removed and the age of the child.

Which children are most helped by dietary treatment?

There has been some research to show that children with atopic eczema may absorb food differently in their gut. This may be the reason why some children develop food reactions.

It is also the reason why early weaning is not rec-

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ommended. There are three things that seem most likely to increase the chances of food being a trigger of eczema. These are:

Age

Children under three years are more likely to have food allergies. Older children tend to grow out of them.

Presence of other symptoms

Infants with moderate/severe eczema affected by food often have other symptoms such as rashes, diarrhoea, vomiting and a runny nose.

Known food allergy

Children with eczema who are known to have an immediate reaction after eating one or more foods (e.g. peanut or cow's milk allergy) are more likely to have eczema that is affected by other foods (often delayed reactions).

Which foods are triggers of eczema?

There is no one diet for the treatment of eczema as the type and number of food triggers can differ considerably between children.

The most common food triggers are cow's milk and egg, but many other foods including soya, wheat, fish and nuts are also common. In fact, any food (including fruits, vegetables, preservatives or corn) may trigger a flare-up of eczema and this is why finding the right diet is often difficult.

The choice of which foods need to be removed will depend upon the history of the eczema, age of the child, how bad the eczema is and sometimes hospital test results.

Cow's milk-free diets

Cow's milk is one of the most common food triggers, and a cow's milk-free diet is often suggested for infants. However, milk is a very important food in a child's diet and the right milk substitute should be used. In young children, always seek dietary advice before removing cow's milk from the diet.

Goat's milk

Goat's milk is not suitable for use in children under one year. Goat's milk must also always be pasteurised. Changing to goat's milk is unlikely to improve eczema, as the protein in it is very similar to that in cow's milk. About 80% of children sensitive to cow's milk will show similar symptoms on consuming goat's milk. It is, therefore, not usually recommended.

Soya milk

Soya milks are a popular choice of milk substitute but many children who react to cow's milk may also react to soya. Soya formula should never be used in

children under the age of 6 months.

If after that age soya formula is chosen, children under two years should always be given a soya infant formula rather than cartoned milk, as this contains the full set of nutrients.

At two years of age calcium-enriched cartoned soya milk can be used, but as this is not nutritionally complete (it does not provide the full range of nutrients), children using it will need a regular check on their diet. If they are not taking 500ml or more of calcium enriched soya milk per day, they may also need to take vitamin drops and calcium supplements.

Hydrolysed formulae

This is the name given to infant milks that have been specially made for children who cannot take cow's milk and soya. All brands contain the right nutrients and they are often the preferred choice when trying to find out if food is a trigger of eczema.

Some children may need to flavour them, as they will taste unfamiliar at first. Although they can be bought from a chemist, a doctor usually prescribes them. Your doctor or dietitian will be able to advise you regarding suitable formula.

Elemental formulae

These formulae are made up of amino acids, fatty acids and sugars, and may be useful in a very small percentage of children whose eczema does not improve on a hydrolysed formula/

Breast milk

Mothers who are breastfeeding should be encouraged to continue doing so, whilst avoiding foods which their baby is reacting to.

These mothers are at a particular risk of developing nutritional deficiencies, and should consult a dietitian to ensure that their diet is meeting their requirements.

In some cases, mothers may find the recommended dietary restrictions too limiting; in these cases a hydrolysed formula should be considered.

Diet in the prevention of atopic eczema in high-risk individuals

Who is high-risk?

Most babies who develop atopic eczema have one or both parents and/or sibling with some form of atopic condition (i.e. a food allergy, asthma, hay fever or eczema).

However, there is a small group in which neither the parents, nor any of the siblings have an atopic condition yet the child still has atopic eczema. At the present time, basic advice such as the value of breastfeeding and delaying weaning until at least six months is given for all infants.

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Mother's diet during pregnancy and breast-feeding

Research has been carried out to see if manipulating the diet of the pregnant or breast-feeding mother can reduce the risk or prevent the onset of atopic eczema in high-risk individuals.

The results of this research are conflicting but do suggest there is no benefit to removing certain foods (known allergens) from the mother's diet during pregnancy or while breast-feeding.

Indeed, evidence from the research studies shows that the removal of foods from the pregnant mother's diet can be harmful to the unborn baby by causing malnutrition.

However, the Department of Health recommends that pregnant women and breastfeeding mothers with a family history of atopy (allergic disease) may wish to avoid eating peanuts during pregnancy and lactation.

Prolonged breast-feeding

Breast-feeding is the best choice of feeding for any baby. Babies who are at increased risk of allergies should be breast-fed as, breast milk, is thought to provide greater protection against certain allergies than formula milk.

Evidence for prolonged breast-feeding (i.e. six months or more) as a preventative measure for those at high-risk of food allergies is limited. It is, therefore, unnecessary, based on recent research, to prolong breastfeeding with the aim of allergy prevention.

Formulae

In mothers who cannot breast-feed, or choose not to do so, it may be beneficial to introduce an extensively hydrolysed or a partially hydrolysed formula as the first choice of milk (for high risk infants only).

Dietary concerns for high-risk families

If your baby falls into the group considered to be at high risk of a food allergy, discuss this with your GP who may refer you to an NHS-registered dietician.

Solids and the weaning diet

Ideally, weaning should begin at six months and definitely no earlier than four months (17 weeks). The first foods you introduce to your baby should be low allergen foods such as rice, potatoes, root and green vegetables, apple, pear, banana and stone fruit.

The recommended procedure to follow when weaning your baby, if you are concerned about the risk of food allergy, is to feed him one type of food at a time until you are confident that he is not reacting to this food.

The following foods are considered to be highly allergenic foods, and should only be introduced to your baby individually, after the age of six months:

Mustard seed, sesame seed, soya, celery, fish, shellfish, tree nuts (and butters made from these). Sulphites, which are used as preservative and found in fruit juices, dried fruit and many processed foods, should also be avoided until the age of six months.

It is recommended that you allow a day or two between each new food you introduce, so that it will be easy to identify anything which causes a reaction. Peanuts, peanut butter and any peanut containing foods should not, however, be introduced before the age of three years, according to the Department of Health.

Further Information

Eczema Helpline
0800 089 1122
(Mon-Fri 8am to 8pm)
email help-
line@eczema.org

To join the NES
020 7281 3553
(Mon-Fri 9am to 5.30pm)
membership@eczema.org
www.eczema.org

Disclaimer

These details are provided only as a general guide. Individual circumstances differ and the National Eczema Society does not prescribe, give medical advice or endorse products or treatments. We hope you will find the notes useful but they do not replace and, should not replace, the essential guidance which can be given by doctor or state registered dietitian.

The National Eczema Society is grateful to Mae Said, Senior Paediatric Allergy Dietitian, London and Carina Venter NHS Senior Allergy Dietitian, Portsmouth, for reviewing and updating the Diet and Eczema in children fact sheet.

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