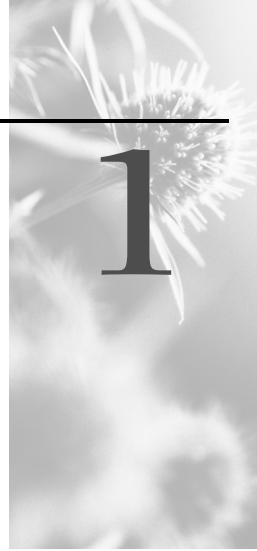

What is eczema?



“When he was first born he had beautiful skin, really soft . . . but he turned three months and he just came out in this rash. I took him to the doctors and I had a feeling it was, and he said it’s infantile eczema and it will go by the time he’s a year old, but it didn’t go, it got worse.”

“She was about four months old when it first appeared. I went to the GP. I guessed it was eczema.”

“I took him to the doctors and they said it was eczema . . . I breast-fed him for one year and you would have thought that breast-feeding a baby it would be protected. So I think I felt a bit cheated actually.”

This book is about the type of eczema known as ‘atopic eczema’. This is the type of eczema with which people are most familiar. It is an itchy skin condition, which is most common in childhood and which often occurs on hands and in the creases behind the knees and elbows. It varies a lot in severity and can affect just one or two small areas of the body or it can be very extensive and cover nearly all the skin.

The appearance of skin affected by eczema can vary. Often the skin appears reddened and it can become thickened over time, particularly when it has been scratched a lot. It can also appear dry and flaky, with marked skin creases. When the eczema is infected, it often appears ‘weepy’ and has a ‘crust’ on it. Sometimes it looks more like a raised bumpy rash, and in children from an Afro-Caribbean background the skin can appear much darker where it is affected by eczema.

The word eczema actually comes from the Greek and means ‘to boil out’. The word ‘dermatitis’ (which means ‘inflamed skin’) is sometimes used instead of eczema. So ‘atopic dermatitis’ is the same as ‘atopic eczema’. ‘Atopic’ is another

confusing word that literally means 'alien' and refers to a tendency to develop asthma, eczema and hayfever that runs through families. So 'atopic eczema' is the type of eczema that is strongly associated with these other conditions and which often does run in families.

There are in fact other types of eczema, such as seborrhoeic eczema or nummular eczema or contact dermatitis. These are less common than atopic eczema and require different approaches to treatment, so it is important to be clear about which type of eczema we are referring to. Throughout this book, whenever the word eczema is used, it is atopic eczema that is being referred to.

The British Association of Dermatologists has recently published diagnostic criteria for atopic eczema which help clarify the cluster of symptoms which make up this condition. It is important to remember that there is no simple 'test' to diagnose atopic eczema and that the diagnosis is made by identifying this cluster of familiar symptoms. In the past there has been a lot of variation in the diagnosis of atopic eczema and these guidelines help to ensure that everyone is using the same criteria for the diagnosis.

Box 1. Diagnostic guidelines for atopic eczema.

Must have:

An itchy skin condition

Plus three or more of the following:

- (1)** History of involvement of the skin creases such as folds of the elbows, behind the knees, fronts of the ankles or around the neck (including the cheeks in young children).
- (2)** A personal history of asthma or hayfever (or history of atopic disease in a first-degree relative in children under 4).
- (3)** A history of general dry skin in the last year.
- (4)** Visible flexural eczema (or eczema involving the cheeks/forehead and outer limbs in children under 4).
- (5)** Onset in the first 2 years of life.

How common is eczema?

Atopic eczema is most common during childhood and the rates do decrease with age. It is hard to give exact figures because of the differences between the age groups and because of differences in the criteria used for defining eczema. Between 10 and 15 per cent of children under seven develop eczema whereas only 2 per cent

of 12–15-year-olds have eczema. This is an encouraging statistic because it does mean that most children do grow out of it. Unfortunately we are not yet able to tell which these children will be. So when your doctor tells you that it is likely that your child will grow out of it, this is true for this group of children overall, but you unfortunately have to wait and see for our own child.

Rates of eczema are different in different ethnic groups. For example, for reasons we don't fully understand, rates of eczema are higher among children from Afro-Caribbean backgrounds born in London. This can be particularly frustrating for families who find that their child's skin condition also improves when they return to a Caribbean climate, for example on holiday.

Why is eczema more common in younger children?

We don't really have a good answer for why eczema affects children mostly when they are young. It does suggest that it might be linked in some way to maturation or establishing biological processes.

This often means that your child is worst affected by eczema while still a baby, toddler or pre-schooler. In some ways this is very fortunate, because young children are less self-conscious and they are less likely to become embarrassed by their eczema. However, it also means that you have to manage all the normal developmental processes that occur in this age group as well as managing the eczema treatment. Temper tantrums, difficulties with sleeping and eating problems are all very common in this age group. Language and cognitive skills are all still developing and it is much harder to reason and negotiate with a 2- or 3-year-old than a 9-year-old.

The fact that eczema is at its worst during this time is part of what makes it so difficult to manage eczema in childhood. Your child is going through all the developmental stages that are part of becoming more independent and ready for life outside the home, including school. The sorts of difficulties that are very common in this age group are often exacerbated by the presence of eczema.

Why is eczema becoming more common?

We know now that eczema has become more common over the past 20 years. Although many people originally thought this was just because it was diagnosed or treated more, we now know that the rates really are on the increase along with the rates of allergy and asthma. Although there are no definite answers as to why this is happening, there are some theories. Some people believe it is due to the reduction in the exposure of children to 'normal' infections or illnesses. The theory is that it is by fighting these 'normal' bugs that our immune systems become fully activated. It

is argued that this process has become disrupted by our living protected lives. Our bodies then become 'over-sensitive' to harmless bugs or environmental agents and this results in an increase in atopic conditions.

Another theory is that it is related to other changes in the way we live, for example living in centrally heated houses with reduced air circulation due to double glazing, with a lot of soft furnishing and carpets. These sorts of environments lead to an increased number of house dust mites and this may contribute to the increase in rates of childhood eczema.

Other possible explanations include the increase in air pollutants and other environmental changes due to increased industrialisation. For some reason it appears that the increase in rates of eczema is most marked in the more affluent areas of the world, which does suggest it is related to changes in our lifestyles.

What causes eczema?

Unfortunately there is no simple answer to this. Even dermatologists can have heated debates about the role of different factors in causing eczema. Some relevant factors are now well established by research. For example, it is clearly established that eczema runs in families and hence genetic factors are important. Others are more controversial. These include the link between allergy and eczema, and the role of diet.

It is also important to remember the difference between true *causes* of eczema and factors that are important in *maintaining* the eczema. Once eczema has become established, the skin becomes much more sensitive and substances that would not normally cause a problem to healthy skin do exacerbate the symptoms of eczema. Several substances fall into this category, for example wool fibres, dog hairs, chemicals in washing powder and some preservatives in creams. Because the skin affected by eczema is dry and cracked, it is much easier for irritant substances to cross the skin boundary and cause irritation. Rather than providing a firm 'wall' which prevents substances leaking into or out of the body, skin affected by eczema is weakened or leaky. Substances that would not normally cause irritation are able to get into the skin and then they do cause a problem.

Although eczema and the other atopic conditions do tend to run in families, this is not in a completely predictable way, so it is not possible to say that any particular family will definitely have a child with an atopic condition. If you or your partner have a strong family history of eczema or asthma then you are more likely to have a child with one or both of these conditions. So there is definitely a genetic component to atopic conditions but this does not enable us to predict the condition for any one individual.

Is eczema caused by allergy?

This is a controversial area at the moment, and causes a lot of confusion and debate. Before we start, it is best to be clear by what is meant by allergy. An allergic reaction is the consequence of the body's 'overreaction' to a harmless substance. The body detects what it considers a 'foreign' substance and mistakenly interprets it as dangerous. This activates the immune system and sets off a chemical response in the body and leads to a raised level of immunoglobulin E (IgE) in the body. A true allergy is therefore very different from the type of irritation caused in skin affected by eczema by a substance such as wool or soap as described in the section above. Food is usually thought of as the main allergen related to eczema but other types of allergen, such as house dust mite, may be relevant.

In some children it is easy to demonstrate an allergic reaction. For example, some children develop an immediate skin reaction, known as 'urticaria' within minutes of being in contact with what is normally considered a harmless substance, such as egg or cow's milk. Urticaria looks like nettle rash and is often very itchy and uncomfortable. Although these types of allergies are rare, they are very easily identified and treatment involves avoidance of the food trigger.

There is also a very dangerous form of allergy known as anaphylaxis, which is again easy to identify and usually the cause can be found. An anaphylactic reaction causes swelling in the mouth and tongue, difficulty with breathing and widespread urticaria. This can lead to collapse and even death due to the swelling in the windpipe. For reasons we do not yet fully understand, this type of reaction is often associated with peanuts or other nuts and has increased in prevalence over the past 20 years. Although very serious and frightening, it is usually possible to identify the cause of this sort of a reaction and avoid the trigger substance.

But most allergies are not so easily identified and the vagueness of the symptoms described, as well as the difficulties testing for allergies, means that it is very hard to establish the cause of many reported 'allergies'. In addition, sometimes an allergic reaction may not occur immediately and may be delayed for several hours, so this makes it particularly hard to identify the allergen. So, although many people do think that their eczema is caused by an allergy, this can be very hard to prove.

Although there are some types of laboratory tests which can be used for detecting allergies, these are not very reliable. They may sometimes appear to indicate a high level of allergy, when in fact the person has no significant symptoms of an allergy when they come in contact with the allergen, or, vice versa, they sometimes indicate a low level of allergy when someone has very marked symptoms when they do eat the food or come in contact with the allergen. For this reason, many doctors are reluctant to suggest using these types of tests because they often make the situation less clear, rather than helping to clarify the presence of an allergy.

There has been a huge increase in the awareness of allergies in the past 10 years and allergy testing has become quite an industry. Many doctors do feel suspicious of some allergy clinics because at the moment there is very little strong evidence to back up some of the claims made. It is important to be aware of this because it is too easy to clutch at straws when you feel that no cure is being offered.

On the other hand, a small proportion of children with eczema do have a true allergy and it is important not to deny this just because there is an overemphasis on allergies in general. Estimates vary, but some experts think that food allergy may be an important cause of eczema in up to 10 per cent of young children affected by eczema. A slightly higher proportion of children may find that an allergen is a contributing factor for their eczema, although it is not the main cause of the eczema.

Is eczema caused by stress?

As a society we are becoming more aware of the link between the body and the mind, and we recognise now that psychological factors, such as stress, are important in our understanding of how illnesses affect us.

Unlike in many other illnesses, the link between the mind and the body has been seen as relevant for eczema for many years. Indeed there has even been an assumption that eczema is a 'psychosomatic' illness, in other words an illness that is caused by psychological factors rather than physical or organic ones. This probably resulted from several factors. There is no doubt that many people with eczema can identify episodes when their eczema gets worse which are directly linked to stressful periods in their lives. In these situations it does appear that the stress has 'caused' the eczema. There is also no doubt that eczema and the discomfort it brings can cause a high level of stress itself. Hence we get a 'chicken and egg' problem. Did the eczema cause the stress or did the stress cause the eczema, or is it a bit of both?

Another reason why eczema has been labelled a psychosomatic illness is because we have never had a very convincing medical explanation of what causes eczema and what causes flares in the condition. When no physical cause can be found for a condition, it has often been assumed that the cause must then be psychological. This assumption is also common in other conditions where the physical cause is not well understood. Gradually, as our understanding of the physical cause becomes more sophisticated we realise that what we previously called psychosomatic illnesses are sometimes physical illnesses that were just poorly understood at the time.

The reality is that with a condition like eczema it is often hard to separate out the biological and the psychological factors. The cause and effect works in both directions and each influences the other. We should keep an open mind and be aware that stressful situations may well make eczema worse, but that it would be

misleading to say that eczema can be caused by stress alone. However, when we are very stressed we find it harder to cope with the difficulties presented by eczema, such as managing the treatment and tolerating the symptoms. So most people also find they are less well able to manage the treatment regime when they are more stressed and probably do it less effectively, hence making it more likely the symptoms will get worse.

CASE STUDY CASE STUDY CASE STUDY CASE STUDY

David

David was born after a normal pregnancy and birth. He was born two weeks after his expected date and his mother noticed he appeared to have quite dry skin. At about four months of age he began to develop a raised itchy rash on his cheeks, forehead and tummy. He had great difficulty sleeping and his mother would frequently find him rubbing his face against the cot bumper. He was diagnosed as having eczema by his GP and prescribed emollients and bath oil.

David's mother frequently tried to identify the cause of his eczema. She went through phases of thinking it was due to what David ate, the washing powder she used, the central heating system and the hard water in their area. None of these factors appeared to be the only cause of his symptoms and David's mother was unable to identify one single cause. In the end, she attributed David's eczema to 'bad luck' and something he had been born with. Although David's mother had never had eczema, her partner did have eczema throughout his childhood and his mother (David's grandmother) remembered it had followed a similar pattern to David's eczema.

As David got older, the distribution of his eczema changed. It got a lot better on his face but affected his hands and backs of his knees. It remained very similar until he was about four when it gradually began to improve and although David continued to have quite dry skin, the eczema itself resolved by the time he was eight.

Summary

- Atopic eczema is a common condition in childhood which often improves as the child grows older.
- It has become more common over the past 20 years.
- The causes of eczema are not fully understood but it is known to be a hereditary condition.
- Although allergy may be an important cause for a small minority of young children, it is usually not the main cause of eczema.
- Eczema is often associated with stress, but it is likely that the symptoms of eczema cause stress, as well as the stress making the eczema worse.