



Pediatric Clinic
PATIENT EDUCATION HANDOUTS

A PARENT'S GUIDE TO ECZEMA

WHAT IS ECZEMA?

The word eczema comes from the ancient Greek meaning “to boil over”. It was originally used to describe itchy rashes with blister formation. Currently, it is used to describe an inflammation of the skin, which causes redness and intense itching. The most common type of eczema in children is atopic eczema, which may be associated with asthma or hayfever. The terms “atopic eczema” and “atopic dermatitis” mean the same thing and should not be confused. The child with eczema has sensitive skin, which is irritated very easily.

WHY DOES MY CHILD HAVE ECZEMA?

Atopic eczema is believed to be a genetic disorder resulting in “sensitive skin”. Often there is someone else in the family with eczema, asthma or hayfever, but this is not always the case. There are many external factors which may influence eczema on a day to day basis.

WILL MY CHILD “GROW OUT” OF ECZEMA?

The tendency for sensitive skin will remain with your child even into teenage years. However, your child's eczema will gradually improve as they get older. The age at which eczema ceases to be a problem varies, but many children show a significant improvement by the age of 5 years and most will have only occasional trouble by the time they are teenagers. Only a few continue to have troublesome eczema in adult life.

IS ECZEMA DUE TO AN ALLERGY?

No, eczema is not caused by any specific allergy.

Children with eczema have a hypersensitive skin, which reacts to many materials and substances which come in contact with the skin surface. You cannot expect to discover one, two or three “allergens” which cause your child's eczema. Further, removing suspected “allergens” from your child's environment will not improve the eczema. Although many people believe strongly that allergy causes eczema, they are simply beliefs and have not been verified by scientific studies.

WILL ALLERGY TESTS HELP MY CHILD'S ECZEMA?

No.

Children with eczema usually demonstrate multiple positive reactions on skin tests, which are of little use in treatment. Blood allergy tests are similarly unhelpful.

TREATMENT OF YOUR CHILD'S ECZEMA

There is no single medication that will cure eczema. However, for most children, it is possible to treat eczema effectively and keep it in check, using a simple treatment plan, as follows (your doctor will check the treatments (s)he recommends):

Emollients and lubricants

These are products which moisturize and soften the skin. They restore the elasticity and suppleness of the skin and help to reduce the itching and scratching. Emollients and lubricants are safe and should be used frequently, as first-line treatment. This phase of treatment should include:

- a maximum of once daily bathing.
- a mild moisturizing soap, such as **Dove**®, or a soap substitute, such as **Cetaphil**® cleanser.
- a moisturizer, such as **Moisturel**® or **Eucerin**®, applied liberally to all areas of dry skin, at least twice daily and if possible more frequently.

Your child's sensitive skin will require daily moisturization, similar to brushing a child's teeth daily. This moisturization will prevent the skin from drying and keep the skin smooth. This will make it less likely to itch or to become red.

A topical steroid ointment or cream

The use of an appropriate topical steroid is safe and an essential part of treatment. As an ointment it is like Vaseline and is gray and thick. As a cream it is white and contains water. They should be applied once or twice daily specifically to the areas of inflammation, that is the red or pink area. One time a day they should be applied immediately after a bath, while the child's skin is still wet. The steroid should always be applied to the skin first and the moisturizer applied to the other non-red areas of skin. Never apply the moisturizer just before the steroid. The use of a mild topical steroid, such as **1% hydrocortisone**, **triamcinolone**, or **Westcort**® is usually sufficient for most children. Occasionally, your doctor may determine that a stronger steroid ointment may be required.

A topical immune modifier

Children who do not respond well to mild topical steroids, or who require chronic application of steroids, should be considered for topical immune modifiers. **Elidel**® (pimecrolimus) and **Protopic**® (tacrolimus) are two such products used for children.

An antihistamine medicine

Given 30 to 60 minutes before going to bed, an antihistamine such as **Benadryl**® (diphenhydramine), **Atarax**® (hydroxyzine), or **Zyrtec**® (cetirizine) will help the child settle and have a more comfortable night's sleep. Some infants and toddlers may become more irritable after antihistamines. You should notify your doctor if this happens and discontinue the antihistamine use.

Wet dressings

To soften your child's skin and relieve itching, you may be asked to use wet dressings. The following 6 steps are necessary:

- Apply the steroid cream to your child's skin.
- Take one pair of child's sleepers and soak it in warm water.
- Wring out the sleepers until only very slightly damp.
- Put the damp sleepers on your child and cover with a pair of dry sleepers. Do NOT cover with plastic. The dampness MUST evaporate.
- Make certain the room is warm enough.
- Your child may complain at first, but be firm.

Wet dressings work through several means. The steady evaporation of water results in constant stimulation of temperature-dependent sensory nerve endings in the skin. This constant cooling sensation prevents itch sensations from detection. The wet dressings restore humidity to the dry skin surface and enhance the effect of the steroid ointment. Your child will have less access to their skin and damage from scratching or rubbing can be avoided.

Your doctor may wish you to use wet dressings overnight for 5 to 10 nights in a row. Or, he may wish you to change the wet dressings every 8 hours for 24 up to 72 consecutive hours. If your child has a flare-up of eczema, using the wet dressing for one or two nights may stop the flare-up.

ARE STEROID OINTMENTS DANGEROUS?

Not if used correctly.

Topical steroid preparations vary in their strength. The use of a mild or moderately strong topical steroid is generally quite safe if monitored by your doctor. Parents are often anxious about the use of topical steroids, but these worries stem from the misuse of the very strong steroids, which may cause problems, such as thinning the skin, and strong steroids should not be used routinely to treat children.

The long term use of a mild topical steroid, e.g. **1% hydrocortisone** ointment, applied once or twice daily to the areas of eczema, is safe. On the face of the very young, it is better to use this daily for less than two weeks.

Children who require strong topical steroids or prolonged use of moderate-strength steroids are good candidates for a topical immune modifier.

HOW MUCH STEROID OINTMENT SHOULD I PUT ON THE SKIN?

Cover the eczema (the red and pink areas of the skin) evenly with a fine film of ointment so that the surface of the skin glistens in the light. Ointment the length of one fingertip should cover an arm or leg. Always apply the ointment or cream in a downward direction leaving a thin film on the surface. Do NOT rub it in to make it disappear. The words “use sparingly” on tubes of steroid creams or ointments worry parents and can lead to under-usage. It is important to use steroid preparations “appropriately”.

IS IT HARMFUL TO HAVE A BATH?

Children will often scratch when undressed for the bath, so it is important that you have the bath ready and then undress your child and promptly put them in the tub. A scratching frenzy while undressed for the bath, may make your child’s skin much worse.

Bathing keeps the skin clean and free from crusts and scales, which helps to prevent infection. It is often helpful to add a suitable bath oil to the bath water, to prevent the skin from drying out. Soaking in the water for 10 minutes will help restore moisture and soften the skin. When the bath is finished, immediately apply the moisturizer to the skin while it is still wet. Do not use a towel except on the hair. Avoid ordinary soaps, which are irritant, alkaline and often perfumed. It is best to use **Cetaphil** cleanser to cleanse the skin. This is well tolerated and easy to use. The temperature of the bath water should be cool and the bathroom warm. Avoid any sudden changes in temperature which may make the skin itch.

ARE ANTIHISTAMINE DRUGS ADDICTIVE?

No. Antihistamine medicines are not addictive and there is no evidence to suggest that long-term use is dangerous.

Antihistamines reduce the itching and act as a sedative. They are therefore useful at night to help sleeping. The bedtime dose should be given at least half an hour to an hour before the child goes to bed. Non-sedative antihistamines are sometimes prescribed during the day. These may help and are especially useful for those children who suffer with hayfever during the summer months.

Antihistamine creams or lotions should NOT be used on eczema as they may cause an allergic reaction.

ARE THE BACTERIA THAT LIVE ON THE SKIN OF CHILDREN WITH ECZEMA IMPORTANT?

Yes.

Eczema seems to attract certain bacteria, in particular *Staphylococcus aureus*, which are found on the surface of the skin in the majority of children with eczema. The presence of *Staphylococcus aureus* on the skin does not necessarily indicate infection. It has been suggested that children with eczema may be hypersensitive to some of these bacteria and that this may aggravate the condition.

Children with eczema are susceptible to skin infections, because of scratching and splitting of the skin. An acute flare-up of eczema is often associated with secondary bacterial infection and usually requires treatment with an antibiotic. When infected your child will feel very unwell. If this is suspected, you must contact your doctor as soon as possible. It is important to keep children with eczema away from anyone with an active cold sore as they may spread the virus over widespread areas of skin. Children with eczema are also susceptible to warts and molluscum contagiosum. These are often numerous small white bumps and persistent - it may take 6 months to one year, and sometimes even longer - but eventually they do disappear - with or without treatment!

IS IT BETTER TO BREASTFEED?

Yes, if possible.

Although there is no evidence that breast feeding will prevent your child developing eczema, breast feeding does seem to have a protective effect in relation to severity during the early months of life and should therefore be encouraged. There is no reason to prolong breast feeding beyond 9 months of age.

SHOULD MY CHILD BE ON A DIET?

It is the generally accepted view that children with eczema should not automatically be put on a special diet. Many parents are concerned that eczema is caused by something the child is eating; however, routine exclusion diets are usually unhelpful. Often parents have already tried soy milk. This should not be encouraged.

ECZEMA IN THE SUN

Eczema usually improves in the sun, especially on vacation. It is important that children with eczema “keep cool” in the hot weather and wear loose cotton clothes. Your child with eczema may develop heat rash easily if the skin is overheated. It is advisable to protect the skin from burning, using a suitable sun-screen product.

It is sometimes helpful for the child to wear a loose wet T-shirt in hot weather to cool down the skin and relieve the itching.

SWIMMING

Swimming in the sea is excellent for eczema. In a pool, the chlorine may irritate the skin. In an attempt to prevent this, apply a thick moisturizer, such as Vaseline beforehand, and afterwards soak in a bath with an oily bath additive. Taking babies with severe eczema into a swimming pool is not a good idea. Children over 4 years should be actively encouraged to learn to swim and participate in all sporting activities.

IMMUNIZATIONS

Your baby should receive all the routine immunizations, like any other baby. There is no cause for concern. In children with eczema in whom there is a history of egg allergy, the MMR and measles vaccines are safe, but if there is serious concern then these injections should be administered under close medical supervision at the local hospital.

Occasionally any of the immunizations may aggravate eczema for a few days afterwards, but this is not usually a problem.

WHAT THINGS MAKE ECZEMA WORSE?

Eczema is influenced by many environmental factors, which are important to take into account in the day to day management of eczema. These factors are problems when they directly contact the skin surface.

Aggravating factors include:

- synthetic or woolen fabrics
Children should be dressed in cotton clothes or as high a percentage of cotton as possible.
- Biological detergents or fabric conditioners
Use non-biological products
- Irritant foods and drooling
- Foods such as citrus fruits and tomatoes can cause eczema around the mouth. This is often made worse by lip-licking and dribbling. It is helpful to apply a protective barrier of Vaseline around the mouth, 2 to 3 times daily and prior to meals. The infant who is drooling often has “chapped” skin around the mouth on the chest or on the hands. Pat dry with a soft cloth and use Vaseline or other moisturizers on the areas.
- Cigarette smoke
In an enclosed room, fumes will irritate the skin. It is best to ban smoking within the home.
- Dogs and cats
Virtually all furry pets will produce a skin reaction in a child with eczema. Cats and dogs leave their dander everywhere and so the child is always at risk, even if the animal itself is not around. Avoid cats and dogs in the house and if necessary get a goldfish!

OTHER PRACTICAL ADVICE

In addition to the above, nails should be kept short and excessive heat should be avoided. Bed linen should be cotton. Pillows should be feather-free and covered in cotton. Good general ventilation in the house is important. A home humidifier may help. Hard water may irritate the skin and the use of a water softener may help.

School can present problems and it is important to work closely with the teacher. It is best if the child is seated in the center of the class, away from the door, windows and radiators. They must avoid contact with any guinea pigs, hamsters or rabbits in the school.

They should take their own special soap and moisturizing cream to school. Most children will apply their own creams at break and lunchtime, but this must be supervised. If properly informed, most schools will cooperate and help in this situation. It is important that children do not miss school because of their eczema.

WHAT IS THE RISK OF MY CHILD DEVELOPING ASTHMA?

There is a risk. Children with eczema have a three-fold increased risk of developing asthma compared to other children. This should not cause undue anxiety. In most cases the asthma is mild and easily controlled with appropriate treatment. It is only in the minority that asthma is troublesome.

WHAT IS THE RISK OF MY CHILD HAVING A SEVERE ALLERGIC REACTION (ANAPHYLAXIS)?

Fortunately this problem is very rare. In exceptional cases a severe and potentially dangerous allergic reaction can be caused by an insect bite (e.g. a wasp or bee sting) a particular food (e.g. peanuts, shellfish, eggs) or a medicine (e.g. penicillin). If a child is at risk parents should have a pre-loaded adrenaline injection at home for emergency use. This should be discussed with your doctor.

WHAT IS THE RISK OF MY NEXT CHILD HAVING ECZEMA?

If you have one affected child then the risk of your next child having is of the order of 25%. If both parents are affected the risk rises to 40%. It is important to remember that the severity of eczema can vary within the same family, so that even if the next child is affected it may well be much less of a problem.

ARE ALTERNATIVE OR COMPLEMENTARY TREATMENTS USEFUL?

There are no scientific studies which support claims that homeopathy, allergy shots, Chinese herbal medicines, acupuncture, spinal adjustments, or therapeutic touch improve eczema. These are simply testimonials and never have been proven to benefit eczema. Eczema waxes and wanes, and there are times when some changes seem to help, but will not help the next time. Many parents seek alternative medicines out of frustration, but the most reliable success has been when there is focus on treating the sensitive skin.