

Antihistamines are also commonly prescribed to reduce the itch. In severe cases of atopic eczema, other treatment options such as **phototherapy** or **systemic immunomodulators** may be indicated. Your doctor will advise you accordingly.

Do certain types of food make atopic eczema worse?

It is rare for food allergies to cause eczema, although food allergies may make eczema worse in some people. Prevalence of food allergies is highest in young children with severe eczema. It may be present in about one third of children less than 3 years of age with severe eczema. In adults, food allergy is very uncommon. Common food allergens in children include cow's milk, hen's egg, peanut, tree nuts, shellfish, wheat and soy.

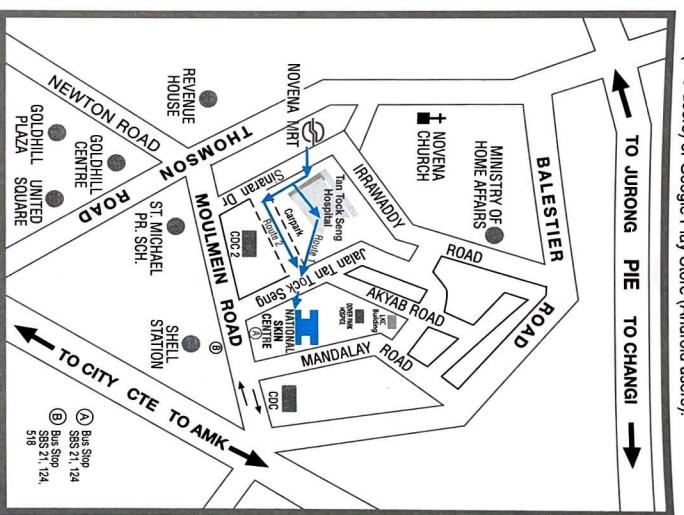
Screening tests for food allergy include skin prick test and specific IgE blood test. The results of these tests must be interpreted by an experienced dermatologist.



Get the HealthHub App
Access Your Public Health Records
View and Change Your Appointments

Patients are encouraged to use the HealthHub app (Login using Singpass) to view your prescriptions, test results as well as manage your appointments at NSC.

If you do not have the HealthHub app, please download from App Store (iOS users) or Google Play Store (Android users).



National Skin Centre
1 Mandai Road, Singapore 308205
Tel: 6253 4455 Fax: 6253 3225

Tel for Appointment : 6350 6666
Fax for Appointment : 6258 2475 (Singapore)
(65) 6253 3225 (Overseas)

Internet Appointment : www.nsc.com.sg
Recorded Information : 6350 6680

Our Appointment Hotline is open from:
Mondays to Fridays : 8.00 am to 5.00 pm
(Closed on Saturdays, Sundays and Public Holidays)

Website: www.nsc.com.sg
Facebook: www.facebook.com/NationalSkinCentre
Medication Enquiries: pharmacy@nsc.com.sg



ATOPIC ECZEMA
/DERMATITIS

Atopic Eczema/Dermatitis

What is Atopic Eczema/Dermatitis?

Atopic eczema is a very common skin condition, which causes a dry, itchy and inflamed rash. The term 'eczema' is used interchangeably with 'dermatitis' and refers to inflammation of the skin. Atopy is characterised by a tendency to develop a group of hypersensitivity disorders; namely eczema, asthma or hay fever, due to a genetic predisposition.

How does atopic eczema present?

Atopic eczema commonly presents in infancy and childhood, but can also occur for the first time in adults. It affects both sexes equally. In infancy, commonly affected areas include the face and outer side of the limbs. During childhood, it usually affects the skin folds such as the elbow bends, back of knees and neck. Eczema may also occur around the lips, eyes and other parts of the skin. In mild eczema, there is a dry, red and itchy rash, while in more severe cases, there may be oozing, crusting and bleeding. The main symptom is itch, which can be severe enough to interrupt sleep, causing tiredness and irritability.



Eczema over elbow bends and back of knees

What causes atopic eczema?

The cause of atopic eczema is not fully known. However, we do know that genes play an important part as atopic eczema often runs in families.

Alterations in the immune system are also thought to play a role in the development of eczema. The immune system in atopic eczema overreacts to things that do not normally cause any harm, such as irritants (eg soaps, fragrances, detergent), and allergens (eg house dust mites, animal dander). In addition, the skin barrier in atopic eczema is also impaired, leading to dryness and increased skin penetration of allergens and bacterial/viruses. It is important to note that atopic eczema is not infectious and you cannot spread it to other people.

Can atopic eczema be cured?

At present, there is no cure for atopic eczema. However, the skin condition can certainly be improved and controlled with good skin care and the use of appropriate medications. In general, atopic eczema tends to improve as the child gets older and 50% may clear in the teens. However, the eczema may still occur on and off, even in adulthood.

How do I care for the skin?

The following are important in the skin care of people with atopic eczema:

- 1) Avoid scratching, rubbing and picking the skin. This aggravates the eczema and may also lead to unsightly pigmentation, open wounds and scars.
- 2) Avoid irritant soaps and detergents. Use gentle soaps or soap substitutes instead.
- 3) Moisturise the skin frequently. Moisturisers do not cause thinning of the skin and should be applied liberally and frequently throughout the day. Remember to apply moisturisers after swimming.

What makes atopic eczema flare up?

- 1) Environmental factors, such as heat, dust, pets and irritants (eg soap and detergents)
- 2) Dryness of skin
- 3) Being unwell (eg having the cold or flu)
- 4) Teething in babies
- 5) Skin infections with bacteria or viruses, eg infection with the cold sore virus (herpes simplex)
- 6) Food allergens (see below)
- 7) Stress

What treatments are available?

Treatments commonly prescribed for eczema include moisturisers and topical steroids. **Topical steroids** are useful in reducing skin inflammation. They are safe if used appropriately. Some possible side effects of prolonged use of steroids include skin thinning. Your doctor will advise you on the appropriate use of topical steroids.

More recently, steroid-free topical medications have been developed and are available for the treatment of eczema. These new **TCI creams** (tacrolimus, pimecrolimus) are costly and your doctor will assess the suitability and appropriate use of these medications.

Oral treatments for atopic eczema include oral **antibiotics** when the skin is infected.

What treatments are available?

Treatments commonly prescribed for eczema include moisturisers and topical steroids. **Topical steroids** are useful in reducing skin inflammation. They are safe if used appropriately. Some possible side effects of prolonged use of steroids include skin thinning. Your doctor will advise you on the appropriate use of topical steroids.

More recently, steroid-free topical medications have been developed and are available for the treatment of eczema. These new **TCI creams** (tacrolimus, pimecrolimus) are costly and your doctor will assess the suitability and appropriate use of these medications.

Oral treatments for eczema include oral **antibiotics** when the skin is infected. **Antihistamines** are also commonly prescribed to reduce the itch. In severe cases of atopic eczema, other treatment options such as **phototherapy** or systemic **immunomodulators** may be indicated. Your doctor will advise you accordingly.

Do certain types of food make eczema worse?

It is rare for food allergies to cause eczema, although food allergies may make eczema worse in some people. Prevalence of food allergies is highest in young children with severe eczema. It may be present in about one third of children less than 3 years of age with severe eczema. In adults, food allergy is very uncommon. Common food allergens in children include cow's milk, hens egg, peanut, tree nuts, shellfish, wheat and soy.

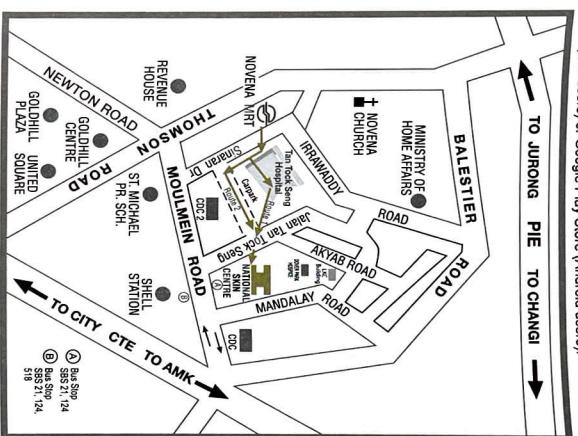
Screening tests for food allergy include skin prick test and specific IgE blood test. The results of these tests must be interpreted by an experienced dermatologist.



Get the HealthHub App
Access Your Public Health Records
View and Change Your Appointments

Patients are encouraged to use the HealthHub app (Login using Singpass) to view your prescriptions, test results as well as manage your appointments at NSC.

If you do not have the HealthHub app, please download from App Store (iOS users) or Google Play Store (Android users).



**ECZEMA &
DERMATITIS**

NATIONAL
SKIN
CENTRE

NATIONAL
SKIN
CENTRE

National Healthcare Group

Eczema & Dermatitis

What is eczema or dermatitis?

The term 'eczema' is used interchangeably with 'dermatitis' and refers to inflammation of the skin. It is a highly individual condition that varies from person to person and comes in many different forms. In mild cases, the skin is dry, red and itchy; while in more severe cases, the skin may ooze, crust or bleed. The skin may also become infected following breaks in the skin caused by scratching.

Eczema affects 1 out of 10 people (10%) at some time in their life. Although most often seen in children, it can affect all age groups.

Atopic Eczema

Atopic eczema is the most common type of eczema. However, there are many other types of eczema as well. Atopy is characterised by a tendency to develop a group of hypersensitivity disorders; namely eczema, asthma or hay fever, due to a genetic predisposition.

Seborrhoeic Dermatitis

This is most commonly seen in babies (where it often clears by 2 months of age) although it also occurs in adults. It is seen on the oily areas of the body such as the scalp, face, upper chest, back and groin. The cause of seborrhoeic dermatitis is not clear. In infants, the condition is believed to be related to developing sebaceous (oil) glands; while in adults, it is thought to involve an inflammatory reaction to an overgrowth of malassezia yeasts. Seborrhoeic dermatitis is either not itchy or just mildly itchy. There is a greasy, yellow scaly rash on the affected areas. When the scalp is affected, dandruff is seen.



Seborrhoeic dermatitis on the face with greasy yellow scales.

Discoid Eczema

This presents with itchy, scaly, coin-shaped patches which tend to blister and weep. It commonly occurs on the arms and legs of young adults. The cause is unclear, but it is associated with dry skin, the use of irritants (eg soap, detergents) and previous atopic eczema.



Discoid eczema on the limbs.

Asteatotic Eczema

This form of eczema is due to extreme dryness of the skin, especially the arms and legs of elderly people. It presents with an itchy, scaly, red rash that looks like 'cracked tiles on the floor'. It is associated with a decrease in the natural oils produced by the skin, and over-cleansing of the skin (especially with hot water).



Asteatotic eczema with appearance of 'cracked tiles on the floor'.

Venous Eczema

This is also known as varicose, gravitational or stasis eczema. It is commonly seen in the elderly and people with varicose veins in the legs. The pooling of blood in the leg veins due to gravity leads to this form of eczema. The legs may become swollen, especially at the end of the day or after prolonged standing. There may also be associated discolouration of the skin, as well as skin tightening and thickening.



Venous eczema on the left leg due to varicose veins.

Contact Dermatitis

There are two types – irritant and allergic. Irritant contact dermatitis is caused by exposure to irritant substances such as soaps, detergents, bleach and engine oils. However, even excessive exposure to water alone can cause irritant contact dermatitis. Allergic contact dermatitis is caused by a specific hyper-sensitivity to substances such as nickel, epoxy glue, hair dye and fragrance/perfume. A patch test is done to identify any allergen. Avoidance of the irritant or allergen should lead to improvement of this type of eczema.



Nickel allergy-contact dermatitis on the abdomen around the umbilicus due to belt buckle

How do I care for the skin?

The following are important in the skin care of people with atopic eczema:

- 1) Avoid scratching, rubbing and picking the skin. This aggravates the eczema and may also lead to unsightly pigmentation, open wounds and scars.
- 2) Avoid irritant soaps and detergents. Use gentle soaps or soap substitutes instead.
- 3) Moisturise the skin frequently. Moisturisers do not cause thinning of the skin and should be applied liberally and frequently throughout the day. Remember to apply moisturisers after swimming.
- 4) Certain clothing materials such as wool and linen tend to irritate the skin while materials like cotton are more comfortable for sensitive skin.
- 5) When in a dry and cold environment, it is important to keep the skin well moisturised to prevent flaring of the eczema.

- Anti-itch measures include oral antihistamines, wet wraps and anti-pruritic ingredients such as menthol found in some creams. We suggest to keep the fingernails short to minimize damage to the skin during scratching.

ANTI-INFLAMMATION

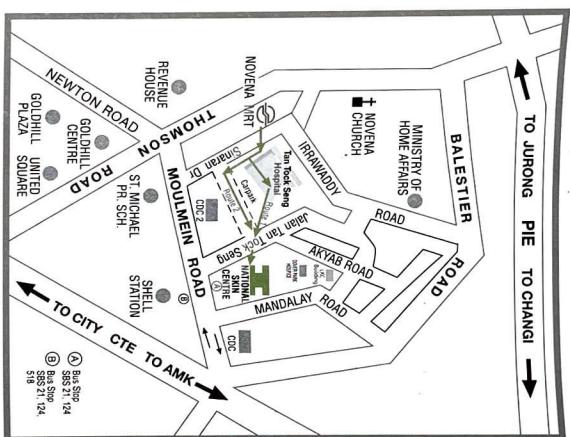
Anti-inflammatory topicals includes steroids and non-steroidal creams. Topical steroids are used to reduce the inflammation of the skin. The strength of steroids will depend on the site and severity. Topical steroids should be applied to red, itchy, bumpy areas, once to twice daily. The strength and frequency of topical steroids should decrease when the skin has improved and stopped when the rashes have resolved. Side effects of topical steroids include skin thinning, easy bruising, stretch marks, increased hair growth, systemic absorption etc.

Topical calcineurin inhibitors are non-steroidal based anti-inflammatory creams and are used in a similar manner to topical steroids. The advantage of topical calcineurin inhibitors is the absence of steroids in these creams. Some patients may experience burning or stinging sensation after application of the cream in the initial few weeks of use. The efficacy and safety has been assessed in clinical trials and post marketing studies. Safety concerns arose in a small number of patients with oral calcineurin inhibitors. Many professional organisations still support and recommend its use.

Oral antibiotics and / or topical antibiotics / antiseptics may be prescribed if your child has any signs and symptoms of infection.

NSC Patient Health Portal
It is an online system that allows our patients to access their health records. To sign up for this free service, you may approach the clinic billing counters when you come for your consultation. Our counter staff will assist you with the registration. Your account will be activated within 24 hrs upon registration and you can log in via <https://www.myportal.nsc.com.sg> using your password.

- This service is only available for patients whose last visit to NSC was within the past 1 year.



National Skin Centre

1 Mandalay Road, Singapore 308205

Tel: 6253 4455 Fax: 6253 3225

Tel for Appointment : 6350 6666
Fax for Appointment : 6258 2475 (Singapore)
(65) 6253 3225 (Overseas)

Internet Appointment : www.nsc.com.sg
Recorded Information : 6350 6680

Our Appointment Hotline is open from:

Mondays to Fridays : 8.00 am to 5.00 pm
(Closed on Saturdays, Sundays and Public Holidays)

Website: www.nsc.com.sg

Facebook: www.facebook.com/NationalSkinCentre
Medication Enquiries: pharmacy@nsc.com.sg

88E-03

Printed - January 2021
Revised - January 2021

**MANAGING
ATOPIC
ECZEMA IN
CHILDREN**



DEDICATED TO EXCELLENCE IN DERMATOLOGY

Treating Atopic Eczema In Your Child

Does my child have Atopic eczema?

Atopic eczema is a common skin problem among children in Singapore. It begins with red rashes, on the neck, face, joint areas-front of the elbows and back of the knees. The child appears agitated, and the rash can spread to the whole body.



Eczema over elbow bends and back of knees.

Why did my child get eczema?

Eczema is an inflammation, a condition where the skin becomes sensitive and itchy and shows redness, swelling, blisters and crusting. Atopy means a tendency to develop hypersensitivity disorders, and this includes diseases affecting the lungs (asthma), the nose (allergic rhinitis) and the skin (eczema). Atopic eczema can occur with or without asthma and allergic rhinitis. Doctors may ask if family members are affected to assess how sensitive your child is.

- How do I recognise eczema in my child?
 - This often begins on the joints, the neck, folds of elbow, back of knees as itchy / red small bumpy rashes. The skin is generally dry. The child scratches and rubs and the skin becomes excoriated, leading to skin thickening. This may also be complicated by infection.

Is eczema inherited?

It is usually inherited from parents, often the mother, though the father can be affected. About 1 out of 20 people in Singapore have atopic eczema. The eczema is more severe if it appears early (2 months of age) and 90%, will appear by 6 years old. The eczema may recur for many months. However, advances in medical research now provide effective treatments which can improve the eczema and keep the child free of eczema.

Conditions Associated with Eczema:

- Hyperlinear palms
- Ichthyosis vulgaris
- Keratosis Pilaris
- Pityriasis alba

Genes and the environment cause eczema?

a) Genes are involved. Recent advances suggest that there is a gene mutation in the skin. This gene is called Filaggrin. Filaggrin breaks down to form proteins, forming Natural Moisturising Factors which hydrate the skin. With its loss, the skin is unable to moisturise itself and becomes very dry. Eczema skin also lacks a lipid, ceramide, which forms 60% of the skin. Therefore moisturisers should preferably contain natural moisturising factors and ceramides. These are the building blocks to form new healthy skin.

- b) The body's immune system, play a major role and produce certain chemicals (cytokines) that contribute to eczema. A poor skin has lower defence reserves to protect against bacterial infection.

If your child has extensive eczema, consult a dermatologist.

- How do I recognise eczema in my child?
 - This often begins on the joints, the neck, folds of elbow, back of knees as itchy / red small bumpy rashes. The skin is generally dry. The child scratches and rubs and the skin becomes excoriated, leading to skin thickening. This may also be complicated by infection.

What is the treatment for eczema?

SKIN BARRIER DEFECT

Patients with atopic dermatitis have genetically impaired skin barrier function with increased water loss leading to dry skin. This impaired skin barrier also allows irritants and allergens access into the skin, initiating an immune system response.

Management includes:

- Ideal gentle cleansers would include properties such oil based for hydration or non-soap based. Antiseptic cleansers be added on to avoid repeated skin infections. We suggest short baths with tepid or slightly warm water, followed by immediate moisturizing. We should avoid strong soaps, chemical or bubble baths to prevent further skin barrier damage.
- Moisturizers are an integral part in the treatment of atopic dermatitis as they aid with repair of the skin barrier. Moisturizers should be applied frequently and liberally (even on normal looking skin). It is best to apply moisturizers after a bath, and as often as needed throughout the day whenever the skin appears dry or itchy. Different children / skin condition would require different moisturizing needs.

Allergy tests in atopic eczema:

- Skin Prick Test
- Allergen specific IgE antibodies

Management should target both

- Underlying skin barrier defect AND
- Skin Inflammation/Infection