

Indian Academy of Pediatrics (IAP)



GUIDELINES FOR PARENTS

Care of a Child with Skin Allergies



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10 FAQs on CARE OF A CHILD WITH SKIN ALLERGIES

1. What is "skin allergy"?
2. Why does my youngest child suffer from skin allergies when no one else in our family has any allergy?
3. My baby has skin eczema. Will my child become asthmatic when he/she grows up big?
4. My child is constantly scratching. What can I do to reduce the discomfort?
5. Can I continue (self-medicate) the same ointment, previously prescribed for my child's rashes as that immediately reduces the rashes?
6. Is my child getting skin allergy because of some food substance?
7. I have two children; one is having hives and another is having atopic eczema. Do I need to do allergy tests for them?
8. My child sometimes gets red, raised patches on skin with severe itching which gets better/disappears in sometime. What are these rashes?
9. My daughter develops red rashes with skin exfoliation, itching, and watery discharge when she wears some artificial earrings or bangles. Is she allergic to metals?
10. Can my child's skin allergy be completely cured?

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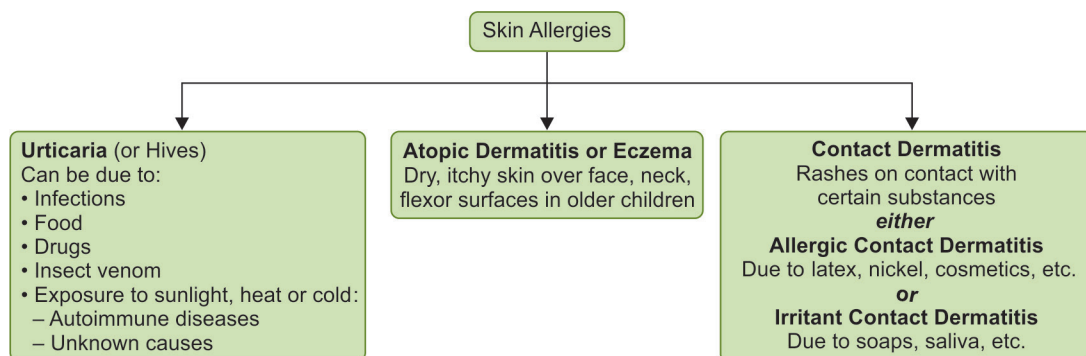
Care of a Child with Skin Allergies

Q1

What is “skin allergy”?

Skin allergy covers conditions that cause dryness and itchy red rashes of the skin due to exposure to some “allergen” or “irritant”. It is common in genetically prone individuals but may occur in others too. Allergy triggers a series of reactions with increased production of antibodies immunoglobulin E (IgE) and release of histamine (**Flowchart 1**).

Flowchart 1: Skin allergy.



These conditions may be acute or chronic. They often relapse when the child comes in contact with the allergen or irritant again.

Q2

Why does my youngest child suffer from skin allergies when no one else in our family has any allergy?

Allergy is a result of complex interactions between genetics, environmental, and epigenetic factors.

Certain gene–gene interactions and gene–environment interactions determine whether a person will develop allergy. Environmental factors can alter the expression pattern of genes (epigenetics). Also in certain genetically prone individuals, allergy threshold (ability to tolerate an allergen) is low or reduced mainly due to stress, certain drugs, or fever.

If your child has inherited allergy susceptible genes, or the genes have undergone genetic imprinting due to repeated environmental exposure, then he/she would suffer from allergy even if no one else in the family has allergy.

Q3

My baby has skin eczema. Will my child become asthmatic when he/she grows up big?

Eczema is one of the manifestations of skin allergy in infancy. It can be atopic or nonatopic. Those children having atopic eczema in infancy usually develop asthma later in life, a process called “atopic march”. These children have dry and broken skin (**Figs. 1A and B**). This defective skin barrier enhances chances of sensitization to various allergens (such as dust mite/pollen/food, etc.) which can trigger the allergic cascade. The chance of developing asthma increases if the child has history of some form of allergy in the family members. But by treating this child effectively and controlling the skin rashes, the severity of asthma can be reduced.



A Rash over the cheek (Atopic Eczema)



B Flexural dermatitis (Atopic Eczema)

Figs. 1A and B: Atopic eczema.

Q4

**My child is constantly scratching.
What can I do to reduce the discomfort?**

Itching or pruritus is the main complaint of children with skin allergies. Scratching causes more irritation and inflammation of the skin which further increases the eczematous skin lesions leading to more itching (itch-scratch cycle).

Skin acts as a protective barrier against external irritants. To reduce discomfort and itching, any damage to skin integrity needs to be reduced.

This can be done by a multifaceted approach aiming at good skin care to control the “itch-scratch” cycle.

- *Liberal use of moisturizers reduces itching:* Effective and good emollients and moisturizers will improve skin hydration and reduce itching. Moisturizers to be used in wet skin within 3 minutes of bathing.
- *Identification and elimination of allergens/triggers:* Potential allergens can be identified by careful history and by performing selective skin prick tests (if possible) or serum specific immunoglobulin E (IgE) (blood tests). Once identified, measures should be taken to avoid these allergens as far as possible. Please do not go by hear-says. Your pediatrician/allergist is the best guide in this matter.
- *Topical anti-inflammatory (steroid ointment/cream or tacrolimus ointment/cream) therapy* as advised by your pediatrician according to age, site of eczema and severity—in proper dosage and duration. Do not use for long periods without consulting your pediatrician.
- *Oral medications* (antihistamines) to reduce itching (if required) as advised by doctor.
- *General measures:*
 - Using cotton clothes.
 - Avoid woolen clothes directly over skin.
 - Keep child fully covered to prevent scratching.
 - Use non-alkaline soaps as advised by your pediatrician.

Q5

Can I continue (self-medicate) the same ointment, previously prescribed for my child's rashes as that immediately reduces the rashes?

Topical steroids are generally prescribed as first-line therapy for atopic eczema and they are very effective in controlling inflammation and providing relief. The type of steroid preparation used depends upon the severity of rash, site of rash, and age of the child. The use of these steroid ointment/creams should not exceed 2–3 weeks at one stretch, otherwise they will cause more harm than good. The side effects of using steroid creams over long periods are thinning of skin, striae, ulceration, acne, hirsutism, skin bleeding, and causes growth suppression. These preparations should also not be applied more than twice daily. Hence, it is always advisable to consult your pediatrician.

Q6

Is my child getting skin allergy because of some food substance?

Skin allergies because of some food substances could be exacerbation of either acute urticaria (Hives) or atopic eczema.

Some of these children can have food allergy to milk, egg, soya, wheat, lentils, fish, or cashew. After proper history, maintaining food diary and after assessing the triggering factors by atopic patch test, the particular food item can be identified and avoided in your child's diet; otherwise *children having skin allergies generally have no restriction of diet* and there is no anti-allergic diet.

Also, there is another entity called "exercise-induced food allergy" where some children develop urticarial rash and anaphylaxis (severe most form of allergy) with exercise after eating a particular food. Symptoms begin 2–4 hours after a meal. This can be avoided by not eating the offending food for a couple of hours before exercise and also not to exercise for 4 hours after food.

Q7

I have two children; one is having hives and another is having atopic eczema. Do I need to do allergy tests for them?

Atopic eczema is mainly diagnosed clinically. However, sometimes certain tests are performed to find out the underlying triggering agents that exacerbate the disease.

Certain foods and drugs may be the etiological agents in acute urticarial rashes (hives), the role of foods causing chronic urticaria is questionable.

So, the allergy tests are not done to confirm the disease but are sometimes done to identify the triggers or allergens which if avoided will prevent aggravation or relapse of atopic eczema or urticaria in your child.

Whether your child needs to undergo these tests will be determined by your pediatrician.

Q8

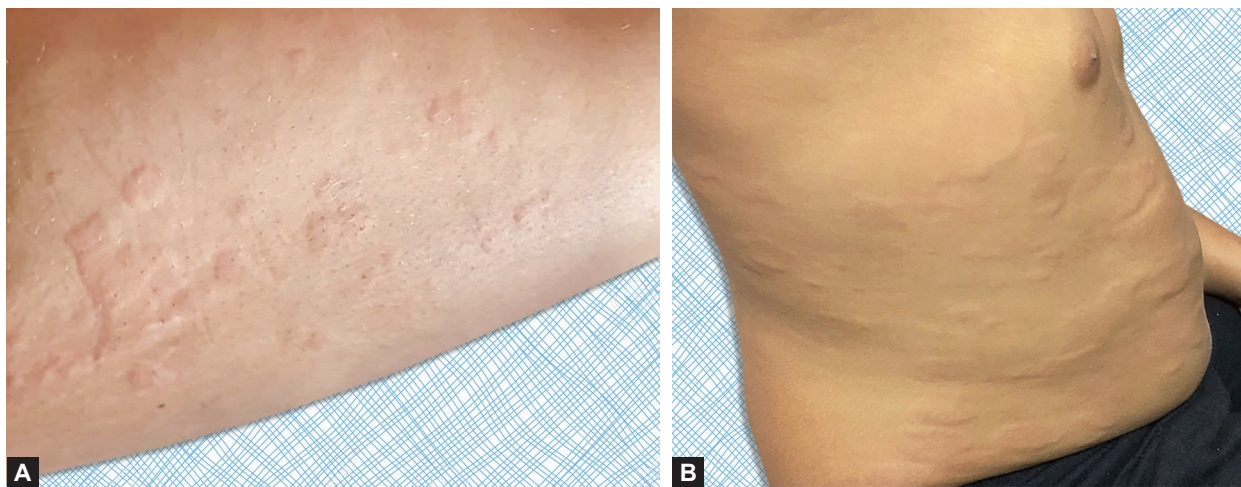
My child sometimes gets red, raised patches on skin with severe itching which gets better/disappears in sometime. What are these rashes?

These red, raised, and itchy patches are urticaria (hives)—usually an acute allergic skin condition. Some individuals develop these rashes when they come in contact with certain food, drugs, infections or insect venom or without any cause that releases the histamine and other chemicals due to direct mast cell stimulation.

Hives can be acute or chronic. Most urticarial rashes in children are acute. They are self-limiting, transient, and generally have excellent prognosis. Most of the acute urticarial rashes are due to viral infections. About 20–30% of cases of acute urticaria will evolve into chronic or recurrent (**Figs. 2A and B**). Hives, both acute and chronic, may be associated with angioedema (swelling in the deeper layers of skin around the eyes, lips, hands, feet, or throat).

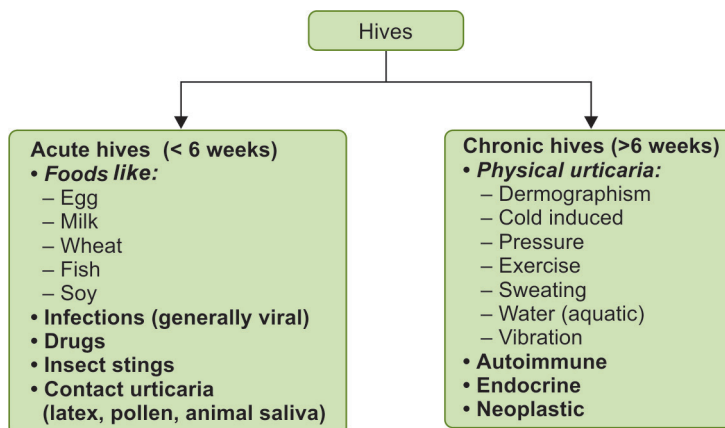
Causes of hives: Hives are divided into acute and chronic, according to duration of the hives (**Flowchart 2**).

Pediatrician will diagnose the cause of urticaria based on the history, examination, and if required using laboratory tests.



Figs. 2A and B: Urticarial rashes (Hives).

Flowchart 2: Classification of hives.



Treatment

In Acute Hives

- Self-limiting, as most caused by viral infection.
- Avoidance of any identified trigger (food and drugs).
- Use soothing agents such as calamine lotion.
- (Non-drowsy) antihistamines (cetirizine, loratadine, fexofenadine, etc.) to relieve itching.
- In case of severe progressive angioedema involving throat and air passages, breathing difficulties, with or without hives—child may be admitted and may require epinephrine/ICU care and must be observed.

In Chronic Hives

- Identification and removal of causative agent is the mainstay of treatment.
- Nonsedative antihistamines are the first line of therapy. Sometimes doses may be increased up to four times until symptoms are controlled (Follow the instructions of your pediatrician or allergist).
- In case of lack of response to high doses, your pediatrician may consider alternate drugs and will evaluate for other systemic diseases causing chronic hives.
- Most patients take time to settle, but may need immune-modifying drugs.

Q9

My daughter develops red rashes with skin exfoliation, itching, and watery discharge when she wears some artificial earrings or bangles. Is she allergic to metals?

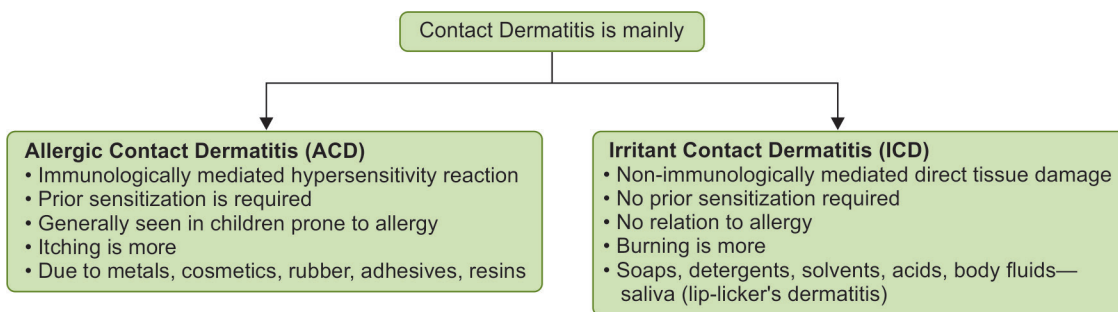
Nickel found in artificial jewelry may be the cause of these rashes.

This condition is called “contact dermatitis” where a person develops red-raised rashes with exfoliation when the skin encounters an irritating substance (irritant contact dermatitis) or in contact with an allergic substance (allergic contact dermatitis) (**Figs. 3A and B and Flowchart 3**).



Figs. 3A and B: Contact dermatitis to silver and leather.

Flowchart 3: Classification of contact dermatitis.



Other types

- *Combination of ICD and ACD*
- *Photocontact dermatitis (PCD)*: Due to exposure to sunlight after application of suspected allergen/chemical
- *Systemic contact dermatitis (SCD)*: When an allergen, sensitized through skin—on subsequent exposure via oral, inhalation, or intravenous route develops allergic rash.

Your allergy specialist will diagnose allergic CD using patch tests. This test also helps to identify the specific causative agent.

Treatment

- *Avoidance of offending allergen:* Parents are trained in identifying and avoiding the offending agent.
- *Supportive measures:*
 - Cold compresses with saline or water can be applied to the affected area.
 - Topical application of calamine lotion is also helpful.
- *Medication:*
 - Antihistamines and topical steroid creams are prescribed.
 - Other medications such as topical calcineurin inhibitors, or immunosuppressive drugs are used in chronic cases, nonresponding cases or cases that require prolonged treatment.
 - Prognosis is good if the causative agent is identified and completely avoided.

Q10

Can my child's skin allergy be completely cured?

Most of the skin allergies are chronic diseases having a relapsing course. With proper treatment, identification and avoidance of triggers and elimination of trigger factors; skin allergy can be controlled very well so as to give your child a good quality of life. In some cases, despite use of appropriate treatment good relief is not obtained. Aim should be to provide good quality of life to the child without any symptoms with negligible side effects which is as good as cure.

Tips for Parents of Children with Atopic Eczema

Children with skin allergies can have a good quality of life with the following:

Care of Skin

- Use alkali-free soaps.
- Use lukewarm water for bath, encourage swimming, avoid shower/ bubble baths.
- Do not rub the skin. Pat-dry the skin.
- Use cotton clothes, avoid woolen clothes or avoid direct contact of woolens over the skin.

- Cover the child well to prevent scratching to avoid breach in skin barrier.
- Liberal use of moisturizers to improve skin hydration. Creams and ointments are better than lotions for dry skin.

Diet

- Exclusive breastfeeding for first 6 months of life
- Avoid introduction of solids before 6 months of age
- Without identifying the offending food, avoiding a particular food(s), leads nutritional deficiencies.

Care of Surrounding Environment

- Keep bed and bedsheets clean. Exposing them to sunlight daily is helpful.
- Avoid using stuffed/soft toys.
- Avoid carpets in the house.
- Avoid extreme cold/hot weather conditions.
- Avoid triggers as identified by your pediatrician.

Medical Care

- Follow your pediatrician's advice.
- Regular follow ups as advised by your pediatrician, even if allergy is well-controlled.
- Do not self-medicate.
- Do not use steroid creams whenever you want, follow your pediatrician advice.
- Vitamin D supplementation in case of insufficiency.
- Wear wrist bands or carry cards if allergic to certain food or drugs.
- Inform school about your child's allergy.