



Boston Children's Hospital
Until every child is well™

Atopic Dermatitis

A Guide for Your Family



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This booklet is for educational purposes only. For specific medical advice, diagnoses and treatment, talk with your health care provider.

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Table of Contents

1 /

Understanding Atopic Dermatitis

- 1 What is atopic dermatitis?
- 2 What causes atopic dermatitis?
- 3 How does treatment work?

2 /

Treating Atopic Dermatitis

- 4 Bathing
- 5 Moisturizing
- 8 Topical steroids
- 9 Other medications
- 10 Fighting infection
- 12 Avoiding triggers
- 14 Wet wraps
- 15 Using a written action plan

3 /

Managing Atopic Dermatitis

- 17 Managing the itch-scratch cycle
- 21 Improving sleep
- 23 Teaching kids to be part of skincare
- 26 Managing atopic dermatitis at school and daycare
- 27 Dealing with emotional challenges
- 30 Guided imagery example
- 31 Getting support

4 /

Appendix

- 32 Additional resources



What is atopic dermatitis?

Key point: Atopic dermatitis is a common skin disease. It makes the skin dry, red and very itchy.

People get atopic dermatitis (also called eczema) on different parts of their body. Children commonly get it on their cheeks, neck, hands, inner arms, behind the knees, ankles and feet. These areas may change as children get older.

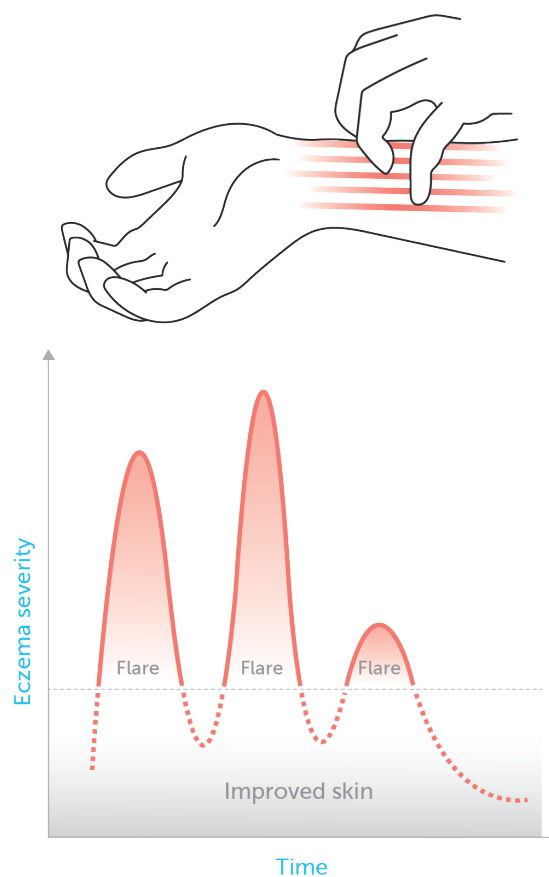
Atopic dermatitis is not contagious. This means that you cannot catch it from someone else.

Atopic dermatitis affects children's daily lives. The itching can make it hard to sleep and pay attention in school. Some children feel embarrassed about their skin or feel irritable when they are tired and itchy.

Atopic dermatitis is a chronic disease. This means that it is sometimes a life-long disease and does not completely go away. Some children get better after a few years and have milder symptoms by the time they are in elementary school.

Atopic dermatitis comes in cycles. There are times it gets worse (called flares) and times it gets better (see Figure 1). There is no cure for atopic dermatitis. But a good skincare plan and using medications can help improve the skin and treat flares quickly. It is important to take your child to regular appointments with their doctor or nurse.

Figure 1 Atopic dermatitis comes in cycles, with times it gets worse (flares) and times it gets better.



What causes atopic dermatitis?

Key point: Atopic dermatitis is a type of eczema caused by both genes and triggers in the environment.

Atopic dermatitis involves changes in how the skin and immune system (our body's defense against germs and sickness) work. Children whose family members have atopic dermatitis, asthma or hay fever (an allergy to things in the environment) are more likely to have it.

In **healthy skin**, the top layer of the skin acts like a brick wall (see Figure 2). The skin cells are like the bricks. Proteins and fats in the skin hold the bricks together and form a seal (like mortar). This protective "skin barrier" keeps water in and keeps things that bother the skin out.

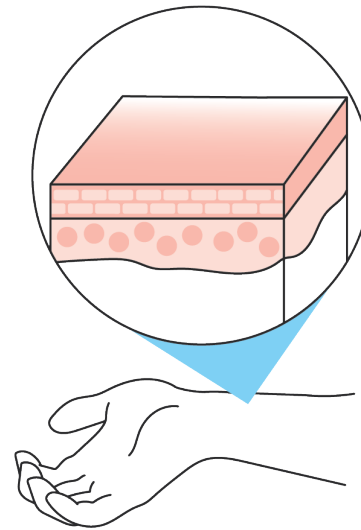
With atopic dermatitis, the skin barrier is not as strong as it should be. The skin may not make as many proteins and fats as other people's skin so gaps open up between the skin cells. This means that:

- The skin loses water and becomes dry.
- Things that irritate the skin (such as harsh soaps) or cause an allergic reaction (such as tree pollen) get into the skin more easily. The immune system overreacts and releases chemicals that cause inflammation, or red and itchy skin.
- Bacteria and viruses can get in more easily and cause infections.

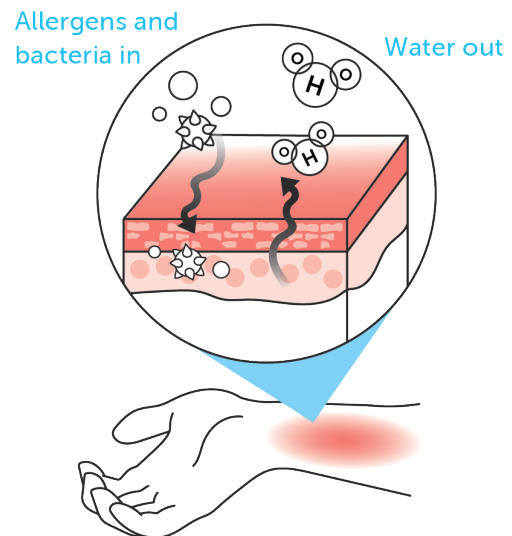
Scratching breaks down the skin barrier even more. This is called the itch-scratch cycle.

Figure 2 Healthy skin keeps water in and keeps things that bother the skin out. In atopic dermatitis, the skin barrier is not as strong.

Healthy skin



Atopic dermatitis skin



How does treatment work?

Key point: There is no cure for atopic dermatitis, but treatment can keep symptoms under control.

Different parts of the treatment plan work together

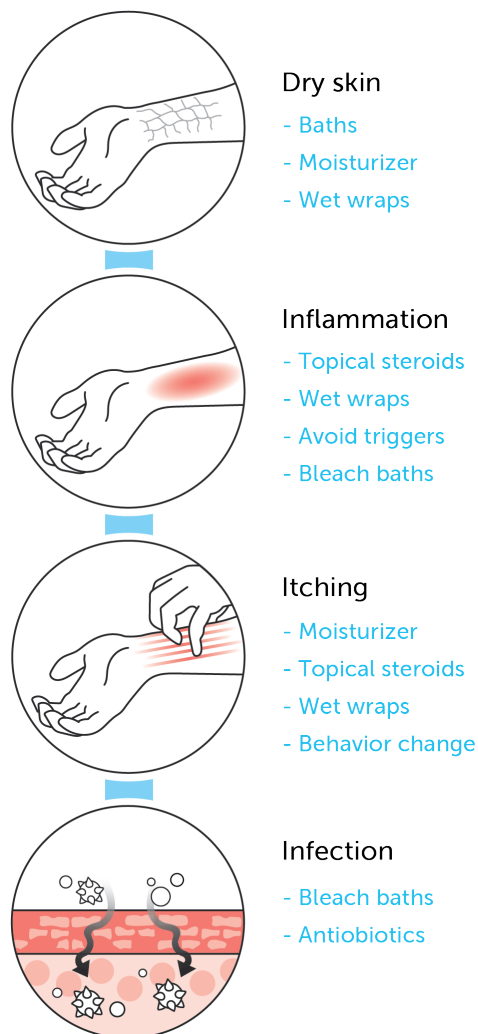
to repair the skin barrier and address 4 main parts of the disease (see Figure 3):

- Dry skin
- Inflammation (caused by the body's response to irritants and allergens)
- Itching
- Infections

Your child's provider will tell you which treatments to use for your child. It is important to follow their recommendations. When families use only some of the treatments, the skin does not improve as much. Talk to your child's provider if you have questions or worries about any of the treatments.

The next section of this handbook (Treating Atopic Dermatitis) explains each of the different treatments and offers tips to make them easier.

Figure 3 Treating all parts of atopic dermatitis helps keep symptoms in control.



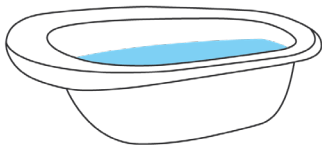
Bathing

Key point: Baths help to put moisture back into the skin. Baths also remove crust, wash irritants off the skin and can help soothe itchy skin.

It is very important to put moisturizer on the skin right after your child has a bath or shower. Taking a bath or shower without moisturizing afterwards can dry out the skin. Using moisturizer helps to seal in the water and repair the skin barrier. This is called the “soak and seal” method (see Figure 4).

Figure 4 The soak and seal method

Soak



Soak in the bathtub for 5–10 minutes using warm (not hot) water. Use a gentle cleanser and do not scrub the skin.

Seal



Apply moisturizer or medication recommended by your provider. Try to apply moisturizer within 3 minutes of patting dry.

Tips for bathing

- Your child should soak in lukewarm water for 5-10 minutes each day, or as often as your provider recommends. They should not take long, hot showers. These may feel good because they stop the itching for a short time, but they dry out the skin and make atopic dermatitis worse.
- Use gentle soap-free cleansers, like Cetaphil® gentle skin cleanser or Vanicream™ products. Cerave® Baby Wash & Shampoo is a good choice for infants. It is also OK to wash with plain water.
- Stay away from soaps, bubble baths and products with fragrance, food ingredients or plant/flower ingredients (such as lavender, tea tree oil, cocamidopropyl betaine and calendula). These can irritate the skin. “Baby soaps” can also irritate the skin.
- After the bath, lightly pat the skin dry with a towel. Drying too much removes water from the skin. Do not rub the skin. Rubbing is like “scratching in disguise.”
- Put moisturizer on your child’s moist skin right after the bath—within 3 minutes or less—to seal in the moisture.
- Your child’s provider may recommend adding a small amount of bleach to the bath. This may help prevent skin infections and reduce inflammation. See the section on Fighting Infection for more information.
- A kiddie pool can be a fun alternative to traditional baths in warm weather.

Moisturizing

Key point: Moisturizers trap water in the skin and help repair the skin barrier. They can help the skin feel less itchy.

Moisturizers trap water in the skin so it is not as dry. Moisturizers also help to repair the skin barrier and keep things like irritants, allergens and bacteria out.

Moisturizers are grouped based on how much oil and water are in them.

- Ointments are thickest and have the most oil. Ointments are usually best for people with atopic dermatitis, because they do the best job sealing water in the skin.
- There are some creams with added ingredients (like ceramides) that also trap water well.
- Lotions are thinnest and are not very good for people with atopic dermatitis.

OINTMENT ✓✓	CREAM ✓	LOTION ✗
Most oil	Mixture of oil and water	Most water
Best for keeping water in the skin	Lighter feel	Not very good at keeping water in the skin
Less likely to burn/sting		Contains alcohol and can dry the skin

“Natural” or “organic” skin care products sometimes make skin worse. Plant or food ingredients can irritate the skin. Using these ingredients on irritated skin may also cause your child to develop more allergies down the road.



Moisturizing

How to apply moisturizer

- Use a spoon to scoop moisturizer out of jars so that bacteria from your hands do not get into the container.
- If your child is using a skin medication like a topical steroid, apply the medication first. Then put moisturizer on top.

Figure 5 Good choices for moisturizers



Types of moisturizer

- Avoid moisturizers with fragrance, alcohol, dyes, plant/flower ingredients and food ingredients (including nut-based oils).
- Good choices for ointments and thicker moisturizers include Hydrolatum®, Vaniply™, CeraVe® ointment, Aquaphor® and Vaseline® (see Figure 5).
- Good choices for creams include Vanicream™, CeraVe® moisturizing cream, Cetaphil® cream and Eucerin®.
- Mineral oil can also help for moisturizing the scalp for infants with seborrheic dermatitis or “cradle cap.”
- Your child may like some moisturizers better than others. It is OK to try different kinds.
- Always ask your child’s provider if you have questions about whether a skincare product is a good choice for your child.

When to apply moisturizer

- Apply moisturizer at least twice a day, even when your child’s skin is clear. This helps to keep the skin barrier strong. It is helpful to use it more often during the day, especially when your child has a flare.
- Always apply moisturizer right after your child bathes or washes their hands to seal in water.
- **If your child is an infant or toddler:** Use moisturizer after every diaper change. This is a good way to remember to moisturize enough.
- Make sure your child has extra moisturizer at daycare or school to use throughout the day. Consider travel-sized bottles to keep in desks or backpacks.

Topical steroids

Key point: Topical steroids are medicines that help treat inflammation so the skin is less red, sore and itchy.

“Topical” means something that is put on the skin. Topical steroids are medicines that help treat inflammation so the skin is less red, sore and itchy (see Figure 6).

Topical steroids come in different strengths. Your child’s provider will tell you what topical steroid(s) to use for your child. This depends on your child’s age, the part of the body, and the severity of the atopic dermatitis.

Tips for using topical steroids

Follow the directions from your child’s provider about using topical steroids. **Make sure that you understand:**

- The body parts where you should use topical steroids—and where not to
- How much of it to use
- How long to use it

Gently apply a small amount to red, raised, itchy spots 2 times a day (or as recommended by your child’s provider).

Wash your hands before and after applying topical steroids.

Do not use a topical steroid as a moisturizer. Your child will still need a moisturizer at least 2 times a day in addition to the topical steroid. Always apply the topical steroid first and then put the moisturizer on top.

Do not compare the “percentage” of the topical steroid to another medication. The percentages are different for each medication. For example, clobetasol propionate 0.05% is much stronger than hydrocortisone 2.5%.

Are topical steroids safe to use?

Topical steroids are safe when you follow directions on how to use them from your child’s provider. We all have steroids in our body to fight inflammation and keep us healthy. Topical steroids were developed to copy this process and are familiar to our bodies. They work well to heal the skin and make your child feel better. Treating a flare early can mean less use of topical steroids than waiting until the flare is worse. Talk to your child’s provider if you have any questions or fears about your child’s medications.



Figure 6 Topical steroids help treat inflammation and give the skin a chance to heal.

Other medications

Your child's provider can talk to you about medications that may help your child.

Other topical medications to treat inflammation

There are some topical medicines that treat inflammation and itch but are not topical steroids. These medicines can be used on all areas of the skin. They can be used for long periods of time. Examples of these medicines include:

- **Pimecrolimus cream** (Elidel®)
- **Tacrolimus ointment** (Protopic®)
- **Crisaborole ointment** (Eucrisa®)

These topical medicines can sometimes sting or burn a little bit. This usually happens less after the first few days. Many families find that cooling these medicines in the refrigerator can help with stinging.

Dupilumab

Dupilumab (Dupixent®) is a "biologic" medication. Biologic medications block a specific part of the immune system. Dupilumab is used for moderate to severe atopic dermatitis that has not gotten better with other treatments. It keeps the immune system from overreacting and causing inflammation and itch. Dupilumab is given at home by injections ("shots") under the skin.

New treatments for atopic dermatitis are being developed. Your child's provider can talk to you about medications that may help.

Fighting infection

Key point: Infections are more likely to happen with atopic dermatitis because the skin barrier is not as strong as it should be.

Skin infections make atopic dermatitis worse and harder to treat. It is important to prevent, recognize and treat skin infections.

How do bleach baths help?

Diluted (watered down) bleach baths help to get rid of bacteria on the skin. Bleach baths may help prevent and treat skin infections. Bleach baths may also help lower inflammation. They can help treat itchiness and lower the need for prescription medications.

Bleach baths are safe, even for infants. Taking a bleach bath is like swimming in a pool with chlorine.

Bleach bath directions

- 1 Fill the bath with lukewarm water.
- 2 Add bleach and stir the bath (see Figure 7).
- 3 Your child should soak in the bleach bath for 10-15 minutes. You do not have to rinse your child after the bleach bath, but you can if the skin feels dry.
- 4 Lightly pat the skin dry with a towel.
- 5 Apply medications and moisturizer while skin is still damp (within 3 minutes).

Figure 7 Bleach comes in regular strength (6% sodium hypochlorite) and in a concentrated form. The amount of bleach you use will depend on the concentration and the size of the bathtub. If you are only filling the bath half full, you can use half as much bleach.



Regular strength bleach

Concentrated bleach

Regular Strength Bleach:

For a full bath tub (about 40 gallons), add $\frac{1}{2}$ cup of bleach.

For an infant tub, add 1 teaspoon of bleach for each gallon of water.

Concentrated Bleach:

For a full bath tub (about 40 gallons), add $\frac{1}{3}$ cup of bleach.

For an infant tub, add $\frac{1}{2}$ teaspoon of bleach for each gallon of water.

Tips for using bleach baths

- Use bleach baths **at least twice a week** to treat flares.
- **Avoid bleach with fragrance.** Some bleach comes as lavender scent, for example.
- **Try to soak your child's entire body** from the neck down. You can use a wet washcloth (dipped in the bath water) to cover their shoulders, neck, face and head. It is safe to get your child's head wet.
- If you have an infant or toddler sitting in shallow water: **Pour water from the bath onto skin that is not under water.** Or have your child wear a white shirt or onesie in the tub. Pour water over the shirt during the bath to keep the bleach mixture against their skin.
- If you do not have a bathtub, you can use a spray bottle to make a bleach spray to use before or after showering. **For a small spray bottle, add 0.15 mL of bleach for each cup of water.** You can ask your child's provider or pharmacist for a 1mL syringe to measure the bleach. Label the spray bottle to make sure it is not used for any other reason. Do not spray directly onto your child's face or neck. Spray a washcloth and then use that to wipe their face and neck.

What if my child's skin is infected?

Call your child's provider if you think your child's skin may be infected. Your child's provider may swab their skin to find out what kind of infection your child has.

- Common bacterial infections include methicillin-resistant staphylococcus aureus (MRSA), methicillin-sensitive staphylococcus aureus (MSSA) and streptococcus.
- Common viral infections include herpes simplex virus, coxsackievirus and molluscum contagiosum.

Signs of a skin infection:

- Open, oozing or crusted areas
- Foul smell
- Small bumps filled with clear liquid or pus
- Worsening redness
- Pain or soreness
- Skin looks "different" from typical atopic dermatitis

If your child's skin is infected, your child's provider may prescribe:

- A topical (applied to the skin) antibiotic. Mupirocin (Bactroban®) is an antibiotic ointment that may be prescribed for small areas of the skin. Talk to your child's provider about any medications you use on your child's skin. Some over-the-counter antibacterial ointments that you buy in the store (like Neosporin®) can cause reactions and may not be recommended.
- An oral (pill or liquid taken by mouth) antibiotic or antiviral medication. It is important to give this medicine for as long as your child's provider recommends and not stop early.

Avoiding triggers

Key point: Some children with atopic dermatitis have specific things that trigger skin flares (cause flares or make them worse). Avoiding triggers can help control atopic dermatitis.

Triggers are different for everyone. Some people may not be able to pinpoint any triggers. **Some common triggers of atopic dermatitis are:**

- Irritants (things that irritate the skin), such as soaps, bubble bath, laundry detergents, certain fabrics (wool, polyester)
- Allergies to things in the environment such as pollen, animal dander (skin) and saliva, mold, dust mites
- Contact allergens (things that touch the skin) such as perfumes or fragrances, plant or flower ingredients, nickel—a metal found in jewelry, zippers and buttons
- Temperature and humidity (very hot, cold, dry or humid weather)
- Emotional stress (anxiety, frustration)
- Illness/viral infection

For children with allergies

Your child's provider will help you understand whether allergies could be a trigger for your child's atopic dermatitis. They may suggest that your child meet with an allergist. Allergists use your child's symptoms, medical and family history and skin and blood tests to find out whether your child has allergies.

If your child has environmental allergies:

- Ask your child's provider for a plan to help avoid things your child is allergic to. This might include things like keeping windows closed during pollen season, taking a bath and changing clothes after being around pets or after outdoor activities, or washing sheets in very hot water to kill dust mites.
- Your child's provider may recommend medications to help control allergy symptoms.

If your child has food allergies:

About 30% of children with atopic dermatitis have food allergies. For some of these children, eating foods they are allergic to can make atopic dermatitis worse. However, **removing foods from the diet does not cure atopic dermatitis**. Good skincare makes the biggest difference. Do not take foods out of your child's diet unless your child's provider tells you to do so. Avoiding foods without good medical advice can lead to poor growth and nutrition without helping the atopic dermatitis.

- Talk to your child's provider about how to avoid foods your child is allergic to.
- It may be helpful to meet with a registered dietitian (nutritionist) who has experience in

the area of food allergy. The dietitian can make sure your child is eating a balanced diet and meeting their nutrition needs for growth. They can help you find healthy and enjoyable alternatives to the foods your child needs to avoid.

- Ask your child's provider if they should have an epinephrine auto-injector to treat allergic reactions.

Bathing and showering

- Use gentle, soap-free cleansers. See the section on bathing for ideas.
- Avoid "organic" soaps and skin products that may have food or plant/flower ingredients.

Clothing

- Use soft, smooth clothing that does not rub or scratch the skin. Cotton is a good choice. Clothes made of fleece, wool or polyester may irritate the skin.
- If your child has atopic dermatitis on their neck, avoid necklaces and try to keep their hair pulled away from their neck. Braiding long hair at night can help keep hair off the neck and away from moisturized skin.

In the home

- Use air conditioning or fans in hot weather.
- Avoid products with fragrances, like scented moisturizer, cleanser, laundry detergent, fabric softener and dryer sheets.
- Avoid fragranced products in the home like candles, incense, plug-in air fresheners, and room sprays.

- Wash favorite stuffed animals at least weekly in very hot water. Place them in a dryer to kill dust mites and other allergens.
- Bring your own pillow or disposable dust mite covers when traveling.

Tips for sports

- Dress your child in a base layer of clothing under sports equipment or athletic gear that rubs on the skin.
- Your child should take a bath or shower as soon as possible and apply moisturizer after playing sports or other activities that cause sweating.
- If your child will not be able to shower or bathe right away after playing sports, it is helpful to bring a change of clothes so they do not have to stay in sweaty clothes.
- Rinse your child well after swimming in a pool or the ocean. Bring travel-sized containers of moisturizer to use after rinsing off.
- Wash sports uniforms often in hot water and double rinse them.
- Spray sporting equipment that is close to the skin (such as pads) with a diluted bleach solution (1 teaspoon bleach per gallon of water). Then rinse well. Allow it to dry before putting it away.

Wet wraps

Key point: Wet wraps are used to help the skin by wrapping it in a damp, protective layer.

Wraps help to:

- Keep water in the skin
- Help make skin less itchy
- Help medicines work faster to heal the skin
- Protect the skin from scratching
- Keep your child comfortable so they can sleep better

Some people use clean cotton clothing as a wet wrap, like a onesie or pajamas. You can use cotton gloves or tube socks for your child's hands and feet. Other people use wet gauze. Your child's provider will tell you what to use on your child.

Wet wraps work best to help the skin at night. Apply wraps right after your child takes a bath and after you put on topical medication and moisturizer. This will help keep moisture in and help medications work better overnight.

Sometimes providers recommend other types of wraps. For example, an Unna Boot is a zinc oxide bandage that is wrapped around the leg and foot. It is made from gauze that has been soaked with zinc oxide and mineral oil to help the skin stay moist and heal.

Your child's provider will tell you which wraps to use. See Figure 8 on how to use wet wraps.

Wet wraps are safe and will not cause your child to get sick.

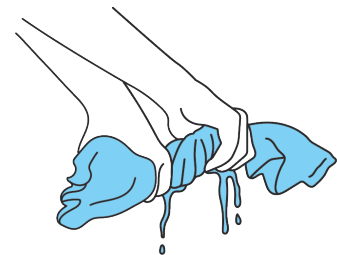
Figure 8 Wet wrap tips: Cut the toe off of a cotton tube sock to create a wrap for the knees or elbow. Cut finger holes in a cotton tube sock if your child likes to have their fingers free while wearing hand wraps.

Step 1



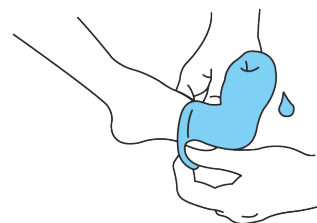
Apply prescribed medication on red itchy areas and then apply moisturizer.

Step 2



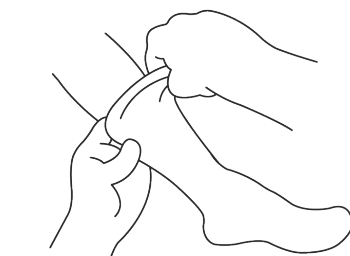
Soak the wrap in warm water and squeeze out the extra water until it is only slightly damp.

Step 3



Apply the wet wrap to the skin

Step 4



Place a dry layer of clothing on top of the wet wrap.

Ideas for fitting skincare into your daily routine: Keep a complete set of moisturizers and prescription medications at each house if your child stays at different homes during the week. If you know your child will be having a late night or sleeping away from home, give them a bath and do skincare earlier in the day.

Using a written action plan

Key point: A written action plan is a set of instructions from your child's provider with all of the steps needed to manage your child's atopic dermatitis.

A written action plan is personalized for your child. It will help you understand:

- What treatments to do every day, even when your child's skin is in good condition
- What treatments to do when your child's skin is flared (red, itchy)
- How to use different skin medications (where on the body, how much to use, how many times each day, how long to use them)
- When and how to contact your child's provider

Talk to your child's provider about how to recognize:

- Signs of a flare of atopic dermatitis (worsening itchiness, redness, dryness)
- Signs of infection (oozing, pus, soreness, fever, warm or swollen skin)

You are an important member of your child's treatment team. Make sure you understand each part of your child's plan and can follow the plan in daily life. Tell your child's provider if you are having any trouble getting prescriptions filled or finding skincare products. Talk to them if you have any questions, worries or problems following the plan. They can help you put together a plan that works well for your child and your family.



Managing the itch-scratch cycle

Key point: Although it may feel good in the moment, scratching actually makes atopic dermatitis worse and leads to more itching later.

Many people with atopic dermatitis say that dealing with itching is the hardest part of the disease. Scratching makes the skin feel better in the moment, but it actually makes atopic dermatitis worse and leads to more itching later on. Some people call this the itch-scratch cycle (see Figure 9 on next page).

Telling your child, “Don’t scratch!” does not usually help. It is very hard not to scratch when you feel itchy. Children may feel frustrated that others do not understand or they may feel guilty about scratching. This may make things worse since stress can be a trigger. It is much more useful to focus on what your child can do when they feel itchy.

Start by working as a team. Let your child know that you realize that being itchy makes them uncomfortable. It is normal to want to scratch and you are not angry at them. You want to work together to find other ways to deal with it

instead of scratching. Praise your child when they take steps to feel better instead of scratching.

Steps for helping the itching

Increase awareness of scratching. Sometimes itching and scratching seems very intense. Other times, your child may not even realize when they are scratching. Children might scratch more when:

- They feel stress, such as before a test or when a toddler is having a tantrum
- Their hands are not busy, such as when watching TV
- The skin is uncovered, such as during a diaper change
- They are tired

Noticing patterns can make it easier to find ways to deal with itching. Some families use a “secret signal” when their child is scratching, like a gentle hand on the shoulder. This is a cue for the child and family to do something to make their skin feel better.

Find ways to make the skin feel better quickly. This often means doing something that soothes the skin. Or it could mean doing something that “blocks the itchy message to the brain” with other messages, such as a “cool message” from a wet cloth.

- Put on moisturizer.
- Put a cool wet cloth or a cool pack wrapped in a towel over the itchy area. If you use a wet cloth, apply moisturizer afterwards.
- Give your child a short bath or shower.
- Move to a cooler place when it is hot.
- Pat the skin or place a hand firmly on the skin instead of scratching.

Try not to scratch or rub the skin “for your child.” A parent’s scratching may be gentler but can still keep the itch-scratch cycle going.



Managing the itch-scratch cycle

Steps for helping the itching (continued)

Keep hands busy. Keeping your child's hands busy means they will not wander to their skin as much. It can help to keep fidget items nearby so your child uses them before the scratching even starts. Consider a pad of paper and pen by the TV or a stress ball in the desk at school.

- Sing songs with hand movements.
- Play with a fidget spinner or cube.
- Squeeze a stress ball.
- Weave a friendship bracelet.
- Build with blocks or Legos®.
- Draw or sketch.
- Play an instrument.
- Make origami designs.
- Knit or crochet.
- Give infants and toddlers a special toy used only during diaper changes.
- Consider hand-held electronics for special situations, like during car rides when it may be harder for parents to help with itching.

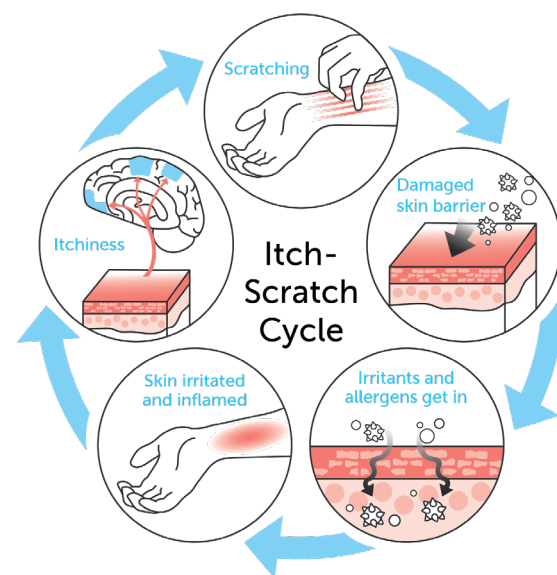
Use distraction. This often works best if the itching is not too intense or after taking steps to make the skin feel better.

- Do something fun like playing a game with friends or parents.
- Dance to favorite music.
- Read a good book.

Prevent damage to the skin.

- For infants and toddlers: It can help to keep skin covered with long clothing and onesies that make it harder to scratch.
- Keep children's fingernails and toenails cut short and file them with a soft nail file.

Figure 9 The Itch-Scratch Cycle





Improving sleep

Key point: Atopic dermatitis can make it harder for children to sleep at night. It is important to follow good skincare and sleep routines.

For many children with atopic dermatitis, the itching makes it harder to sleep. Your child may have a hard time falling asleep and may wake up during the night. If your child does not sleep well, this can affect mood and behavior during the day. They may feel tired, get frustrated more easily or have a harder time concentrating in school.

Why does the itching seem worse at night?

Everyone has an internal clock (circadian rhythm) that helps control daily cycles, such as our sleep and wake time and even the changes in the skin barrier. For people with atopic dermatitis, the body's natural cycles may cause more itching at night.

We all wake up briefly during the night as part of our sleep cycles. But most of us do not notice it. For children with atopic dermatitis, itching and scratching can happen during these brief awakenings. It can make it harder to fall back to sleep once the itch-scratch cycle gets going.

Children usually start sleeping better when atopic dermatitis is under better control. **There are important steps you can take to help your child sleep better.**

Follow evening skincare routines

Good evening skincare helps because:

- Moisturizer seals in water to keep skin less dry and itchy at night.
- Medications applied to the skin help the skin heal at night.
- Wet wraps keep the skin moist and block scratching so the itch-scratch cycle is less likely to wake your child up.
- Regular bleach baths help with inflammation in the skin that triggers itching.

Use air conditioning at night when it is warm out to help keep your child comfortable.

Your child's provider may recommend an oral (by mouth) antihistamine at night. Antihistamines may help your child feel sleepy. But they have not been proven to help itching and scratching.

Improving sleep

Follow healthy sleep routines

- Have your child go to bed and wake up at the same time each day, even weekends. Wake up times are easier to control and help to set a regular bedtime.
- Avoid late-afternoon naps.
- Create a regular, relaxing bedtime routine that lasts about 10-20 minutes and ends in the bedroom. This routine will probably take place after evening skincare.

For young children, the routine could include songs or books.

For older children and teens, the routine could include reading, listening to quiet music or using relaxation techniques.

- Avoid any screen time for 1-2 hours before bed and keep screens outside of the bedroom. The light from TVs, phones and devices can make people more alert at night, making it harder to fall asleep. If your child falls

asleep with the TV on, it will be harder for them to fall back to sleep without it if they wake at night.

- Keep the bedroom cool, quiet and dark. Use a dim nightlight if needed.
- Avoid drinks with caffeine, like coffee, tea, soda, iced tea and energy drinks. Avoid chocolate and chocolate milk later in the evening.

Help your child learn to fall asleep on their own

When your child's skin is flared, they may sometimes need more help falling asleep. In general, it is good to help children learn to fall asleep on their own. If they depend on their parents to fall asleep in the beginning of the night, it is harder for them to fall back to sleep on their own when they wake up.

To help your child fall asleep comfortably:

- Be a part of your child's relaxing bedtime routine, but leave the room while your child is still awake.

- Keep your child's skin covered with cotton pajamas or wet wraps (if recommended by your child's provider) to block scratching. Some children sleep with cotton gloves or socks on their hands or "bedtime socks" that go above the pajama leg. These can be taped to pajamas so they do not fall off at night.
- If your child wakes up itchy in the middle of the night, re-apply moisturizer or soothe the skin with a cool washcloth or wet wraps. But keep your visits to their room brief.
- Do not use food or drinks as a soothing technique if your child wakes up at night.

Tell your child's provider if your child is having trouble sleeping, especially if sleep problems keep happening after their skin gets better. It may be helpful to meet with a sleep specialist or psychologist to learn about other sleep treatments.

Teaching kids to be part of skincare

Key point: It is important for children to understand what atopic dermatitis is and how to take care of their skin. This will help their skin improve and help them feel more confident.

For young children (birth to 5 years old)

Parents play the lead role in taking care of the skin. But children are working on a sense of control and independence.

Children can be involved in fun ways that help with cooperation, such as:

- “Painting” on the skin with moisturizer or helping to rub it in.
- Playing a game to name body parts while parents apply moisturizer
- Playing with toys or bath crayons in the tub
- Listening to a special “bath book” in the tub
- Turning wet wraps into “princess gloves” or a “superhero suit”
- Wearing wet wraps for 30-60 minutes before bed while reading or playing a game

Children can learn simple information about atopic dermatitis and treatment:

- Moisturizer can help make itching better
- Baths are like “a drink for thirsty skin” so skin will not feel as dry

For school-aged children (5–12 years old)

Skincare can be more of a team approach. For example, children can:

- Put moisturizer on easy to reach spots
- Keep moisturizer next to the bed to put more on at night if needed
- Use a timer to know how long to stay in the tub
- Learn what to do to take care of their skin at school, like going to the nurse for a cool pack or moisturizer if they feel itchy

Children can find ways to make skincare more enjoyable, such listening to an audiobook during the bath. Listening to little bit of a book series each night can give them something to look forward to at bath time.



Appointments: It is important for children and teens to be part of the appointments with their providers. Parents can help children make a list of questions, goals and topics they want to talk about during their appointments.

Teaching kids to be part of skincare

For teenagers (13 and older)

Teenagers should:

- Understand their skincare plan (names of medications, what the treatments do, how much to use, skincare schedule).
- Talk to their provider about which skincare products they like or do not like. For example, some older children and teenagers like to use a lighter moisturizer during the day.

Parents should:

- Be supportive and check in regularly. Some teenagers stop skincare when skin is improved, so it is important to check in both when skin

is flared and when it is under good control.

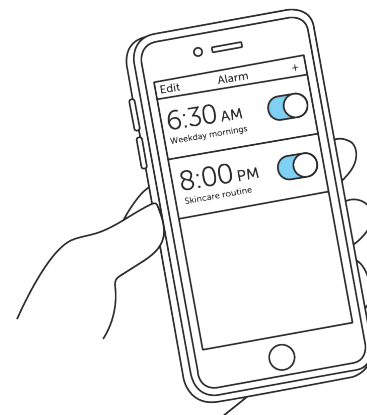
- Watch teenagers the first few times they do new things, such as put on topical steroids or add bleach to the bath.
- Be patient because teenagers will not do things perfectly at first.
- Check supplies and prescriptions regularly to see if refills are needed.

It can be helpful to:

- Keep a copy of the skincare plan near the skincare supplies.
- Keep all skincare supplies in 1 covered container.

- Use reminders for skincare, like sticky notes or phone alarms (see Figure 10).
- Problem-solve ways to fit skincare into busy schedules
- Develop a system for letting you know when supplies run low.

Figure 10 Set an alarm on your phone, and label it so that you remember your skincare routine



Managing atopic dermatitis at school and daycare

Key point: It is important to have a good plan for managing your child's atopic dermatitis during the school day.

Your child's teachers and school nurse will be partners in this process. The school nurse can write a specific plan for your child. Talk to your child's provider about what to include in this plan. **See the Family Education Sheet "Atopic Dermatitis: Information for Teachers."**

Make sure that the school or daycare staff knows about:

- **Medications your child is taking**
 - **When moisturizer should be applied during the day.** This may be on a regular schedule or when your child is itchy.
- For infants and toddlers, daycare staff may apply moisturizer during diaper changes.
- Younger children may go to the nurse for moisturizer.

Older children and teens may go to the nurse or keep moisturizer with them in a backpack or locker.

- **Steps to avoid triggers.**

Depending on your child's situation, this may include:

Non-irritating cleanser for washing hands

Mats for young children to sit on during circle time (if the rug or allergens bother them)

Having a plan to cool down after gym class or recess if sweat is a trigger. This may include wiping off with a damp paper towel (and applying moisturizer if needed), using a cooling towel or getting a cool drink.

Keeping windows closed during pollen season (for students with allergies)

Changes to school uniforms or gym clothes

- **Strategies that help your child feel better when they are itchy.** Share what works well at home and involve your child in developing a plan with the teacher and nurse.

- **Other related medical conditions.** If your child has food allergies or asthma, make sure the school has plans to manage these conditions.

Some children with atopic dermatitis have a 504 plan at school. 504 plans make sure children with special health care needs can participate fully in school. Teachers, parents and health care providers work together to develop a 504 plan. 504 plans are for programs that receive federal funds, such as public schools. Talk to your child's provider or school if you have questions about a 504 plan.

Dealing with emotional challenges

Key point: Atopic dermatitis affects more than the skin. It can affect children's emotions, behavior and how they feel about themselves.

Children may feel embarrassed about their skin or get teased. Lots of children also feel frustrated about having to do skin-care. Young children may be more fussy or clingy when skin is flared and they are not sleeping well. Older children and teens may be more irritable or sad, have trouble concentrating or avoid spending time with friends.

Emotional stress can be a trigger for atopic dermatitis.

This can be a tough cycle because the disease is stressful, and stress can lead to itching and more skin symptoms.

Building self-esteem

Help your child feel more in control. You cannot make atopic dermatitis go away. But you can reframe how your child and the family thinks about the disease. For example, you could say, "Sometimes your skin will flare, but we know the steps to treat it quickly."

Praise your child for taking care of their skin. Skin care is a lot of work and your child should feel proud of themselves. Try to be specific about what they are doing well. For example:

- "Good job helping to put on your moisturizer."
- "I know you were tired when you got back from your dance class last night. I was proud when you took your bath."

Ask your child to come to you with any questions or worries, or if they are feeling sad. Kids should know they are a part of a team in coping with their atopic dermatitis.

Remember that there is much more to your child than atopic dermatitis. Help them find activities they enjoy to lower stress and feel good about themselves.

Handling questions and bullying

Sometimes other kids or even adults may ask questions about your child's skin. Usually other children are just curious or want to make sure your child is OK. Helping your child prepare for these questions will make them feel more confident.

Help your child practice explaining atopic dermatitis.

Give it a name and keep it simple. This gives the message that no one should be scared or ashamed of atopic dermatitis. For example:

- "It's called atopic dermatitis or eczema. It's dry, itchy skin."
- "It's like an allergy. You can't catch it."

Make sure your child knows they should always tell someone if someone bullies them about their skin or about anything else. They should know they should tell a parent, teacher, school nurse or coach.



Managing stress: It is normal for children to feel stressed, anxious or frustrated at times. The good news is that there are strategies to help your child feel in control and more positive about themselves.

Dealing with emotional challenges

There are ways to help turn down the body's stress response and make itching better.

Guided imagery (or visualization) is a way of using the imagination to create relaxing or soothing scenes in the mind.

- This can help with stress and distract from the itching. Imagery works best when you use all of your senses to imagine everything you see, hear, feel, smell or taste in a situation.
- This could include imagining a favorite place where your child feels comfortable and happy, or imagining a healing waterfall or a magic cream that washes away itching.
- "Guided" means that someone leads your child through the process (such as a parent reading a script or a recording).

Other good ways to turn down the stress response include **yoga** and **meditation**.

Many of these techniques use deep breathing or "**belly breathing**." Your child can also practice belly breathing on its own to help the body relax.

There are lots of good downloads, apps and books to help children and teens learn these skills. They work best when your child practices them regularly, even when they are not feeling stressed.

Guided imagery example

Key point: Guided imagery is a way of imagining a place or event using the senses. The body responds as if you are actually in the place you are imagining. This helps people feel more relaxed and comfortable.

The script below involves taking a “trip to a special place.”

It can help to talk to your child ahead of time about a special place they want to visit during the exercise.

- This can be a real place or situation, like an amusement park or riding the waves at the beach.
- Or it could be an imaginary situation or something they would like to do, like riding in a rocket ship or hitting a home run in the World Series.

You can change the script to fit your child’s age and interests.

Help them think about their special place using all of their senses. What do they see, hear, smell, feel or taste?

Choose a quiet comfortable place and a time when you will not be disturbed to practice guided imagery. Use a calm voice and a relaxed pace. The

more your child practices, the easier it will be to imagine their special place and feel relaxed!

Example script

You can start by sitting or lying down with your arms to your sides and get yourself in a comfortable position. (Pause). It helps if you close your eyes. (Pause). We’ll start by taking some slow, relaxed breaths. Breathe in slowly through your nose (like you are smelling a flower) and out slowly through your mouth (like you are blowing through a straw). Breathe at pace that feels comfortable. With each breath in, you feel more and more calm. With each breath out, you feel more and more comfortable.

Now that you’re feeling relaxed and calm, I want you to imagine yourself floating on a very comfortable cloud. Notice how good it feels to be floating along. Feel yourself lying on

the cloud like a soft bed. The cloud is floating along and taking you to a special place. A special place where you feel relaxed, and safe and happy. It can be a place you have visited before, a place you want to go, or a place in your imagination. As I count down slowly from 10 to 1, the cloud will slowly float down to ground and land in your special place. 10, 9... floating towards your special place... 8,7... you are looking forward to getting there... 6,5... almost there... 4, 3... starting to feel happy and relaxed... 2 and 1. You are in your special place.

Take a minute to pay attention to everything that you see in your special place, like the scenery and the colors. What do you hear? Are there any good smells or good things to taste? What do you feel—warm, cool, a breeze, movement?

Note: If you have already talked with your child about their special place, you can guide them through noticing the details they came up with.

Remember that this is your special place and you are in control of how you feel here. You can change the scenery so that it feels good to you.

Take a moment to enjoy the feeling of deep relaxation and how good you feel. Notice your slow, relaxed breathing and how comfortable you feel. Your brain will record this memory and you can come back to this special place whenever you want to.

Awake and refreshed ending

Now you can slowly bring your attention back to this room. Your eyes are still closed, but you can start to notice the sounds you hear around you. You can stretch your body if you like. When you are ready, you can slowly open your eyes and you will feel comfortable, refreshed and awake.

Going to sleep ending

In a moment, I am going to count down from 10 to 1. When I get to 1, your body will start to drift off to sleep. You may not fall asleep right away, but that's OK. Your body will be comfortable and ready to relax. 10... 9... 8... Feeling calm and relaxed, 7... 6... 5... comfortable and ready for sleep... 4... 3... 2... more and more relaxed and 1... drifting off to sleep.

Example of a waterfall as a special place

This example uses soothing imagery to make the skin feel comfortable.

It's a quiet, peaceful spot, and you feel totally relaxed. You are standing on smooth rocks at the edge of a crystal clear stream and you have the perfect view of the most beautiful waterfall you have ever seen. You can feel a wonderful cool breeze and the gentle warmth of the sun. There is a light smell of flowers in the air. You don't hear anything except the mesmerizing sound of the waterfall splashing into the stream and the singing of the birds overhead. You put a toe

into the water. It is just the right temperature and you decide to go in. The water feels so comfortable. It soothes your skin and makes you feel just right. You dip your hand into the water and make a gentle splash. You notice the pattern the splash makes on the surface of the water. In front of you, you notice some bright orange fish swim by, almost like they want to say hello. Now, take some more time to enjoy the water. You can walk in as far as you want, or swim or float in the stream. Take all the time you need. When you come out, the sun leaves you feeling warm and comfortable. You feel totally relaxed.

Getting support

Key point: Behavioral health providers can help children and families to cope with medical conditions and manage other behavioral and emotional concerns.

Children with atopic dermatitis may be more likely to have anxiety, depression and attention deficit hyperactivity disorder (ADHD). Although we do not know for sure why this is the case, sleep loss and inflammation could play a role.

Talk to your child's provider if you have any questions or concerns about your child's mood or behavior, like:

- Sadness or hopelessness
- Irritable mood
- Less interest in being with friends
- Feeling left out or isolated
- Difficulty concentrating
- Changes in appetite and sleep
- Worry about many things
- Anxiety about skincare
- Trouble cooperating with skincare
- Skin picking

Atopic dermatitis affects the whole family.

Skincare routines, sleep loss and worries about your child's health can be stressful at times.

Talk to your child's provider about any family challenges in coping with atopic dermatitis.

Who can help?

Your child's provider may suggest meeting with a behavioral health provider. This may be a psychologist, social worker or psychiatrist. Behavioral health providers can help children and families to cope with medical conditions and manage other behavioral and emotional concerns. They often help patients with atopic dermatitis improve sleep, follow treatment routines, manage stress, cope with itching and improve self-esteem.

At Boston Children's, behavioral health providers in the **Medical Coping Clinic** can help patients and families learn skills for healthy coping.

The National Eczema Association is a patient support organization that can help your family learn more about coping with atopic dermatitis in daily life through its website, online support and conferences.

See the Resources section of this handbook for details.

Additional resources

Key point: These sites provide accurate and up-to-date information on managing your child's atopic dermatitis. Always ask your child's provider if you have questions about what you read online.

American Academy of Allergy, Asthma & Immunology

aaaai.org

The AAAAI website includes information about managing atopic dermatitis, allergies and asthma.

American Academy of Dermatology

aad.org

The AAD website includes information and videos about managing atopic dermatitis/eczema. There is also information about Camp Discovery, a free summer camp run by the AAD for children living with a chronic skin disease.

Common Sense Media

commonsensemedia.org

Common Sense Media provides recommendations for meditation and relaxation apps for children and teens.

Food Allergy Research & Education (FARE)

foodallergy.org

FARE is a non-profit organization with a mission to improve

the quality of life and health of individuals with food allergies, and to provide them hope through the promise of new treatments.

National Eczema Association

nationaleczema.org

415-499-3474

NEA is a non-profit organization with a mission to improve the health and quality of life for people with eczema through research, support and education. The NEA offers information and resources to help manage eczema through its website, printed materials, webinars, conferences and online support.

Under My Skin: A Kid's Guide to Atopic Dermatitis by Karen Crowe

Children's book about managing atopic dermatitis.

bridges4kids.org/Disabilities/Undermyskin.pdf

Boston Children's Clinical Programs

Allergy and Asthma Program

childrenshospital.org/allergy

Appointments: 617-355-6117

Atopic Dermatitis Center

childrenshospital.org/centers-and-services/programs/allergy-atopic-dermatitis-center-program/overview

Appointments: 617-355-6117

The Atopic Dermatitis Center helps children and teenagers cope with moderate to severe atopic dermatitis. Our team includes a pediatric allergist, a pediatric nurse practitioner, a pediatric nutritionist and a pediatric psychologist who can help your child learn to cope with itching and scratching.

Dermatology Program

childrenshospital.org/dermatology

Appointments: 617-355-6117

Medical Coping Clinic, Department of Psychiatry

childrenshospital.org/medcoping

Appointments: 617-355-6680

The Medical Coping Team has expertise in helping patients and families learn skills to promote healthy coping with medical conditions.

“ We used to be nervous to put topical steroids on our son. If I could go back in time, I would tell my younger self that you need to control the flares. Otherwise, you will end up needing stronger medications in the long-run. ”

PARENT OF CHILD WITH ATOPIC DERMATITIS

“ Getting in the habit of moisturizing every day makes skincare second nature. It might be hard at first, but if you stay with it, it will get easier. Seeing the difference it makes helps me keep on top of it. ”

TEENAGER WITH ATOPIC DERMATITIS

“ Sometimes I still get asked about my skin. I just explain what atopic dermatitis is and how long I've had it. The more easygoing you are about answering questions, the less of a big deal it is. ”

TEENAGER WITH ATOPIC DERMATITIS

“ Involve your child in the skincare plan. You may want to do it all yourself , but it is important for your child learn how and to be engaged in their own skincare. ”

PARENT OF CHILD WITH ATOPIC DERMATITIS

“ When our daughter didn't want to take her bath, small rewards like 'mommy time' or special stickers really helped improve cooperation. After about a week of simple rewards, we didn't need them anymore. Her skin started to feel better and the joy of playing in the tub was reward enough! ”

PARENT OF CHILD WITH ATOPIC DERMATITIS

“ Sticking to a plan or a routine each day is great for both parents and children. Children feel more at ease about skincare when they know what to expect. Having a plan helps parents feel more confident about helping their children. ”

PARENT OF CHILD WITH ATOPIC DERMATITIS



Boston Children's Hospital
Until every child is well™



Appointments:
617-355-6117

