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RASHES: WHAT YOU SHOULD KNOW

 Children's Hospital
of Philadelphia®
Vaccine Education Center



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INTRODUCTION

Just like any part of the body, the skin can be affected by a variety of conditions such as infections that cause a rash. Rashes may or may not be accompanied by other symptoms and can be difficult to diagnose. Although finding the root cause of a rash can be troublesome, rashes are very common, especially in children.

Many rashes will resolve on their own without medical intervention. However, because some rashes are contagious — or can be a symptom of a more serious disease — if you or your child has a worsening rash, especially if accompanied by fever or other symptoms, you should contact your healthcare provider.

This guide is not meant to replace the advice of a medical professional. However, we hope it can answer some common questions about certain rashes and help to serve as a guide if someone in your family has a rash that requires medical attention.

In addition to providing basic information about rashes, the guide provides summaries for a variety of common, and some uncommon, but important, rashes. At the end of this handbook are two helpful worksheets. The first can help document rash history, and the second can help you compile information that might help with diagnosis.

A RASH! NOW WHAT?

Although not all rashes require treatment, it is important to determine when medical care should be sought.

Sometimes rashes can occur when a new allergen touches the skin. Examples of common causes of allergic rashes include poison ivy, poison oak or even a new fragrance. In addition some infections, such as impetigo; hand, foot and mouth disease; molluscum; tinea and others are contagious when infected skin is touched. Therefore, try to remember any potentially new exposure or sick contact in the worksheet provided.

If you or your child is experiencing difficulty breathing or symptoms that are quickly worsening, seek immediate medical attention. If a fever, fatigue, general ill feeling, or prolonged symptoms occur, contact your healthcare provider. You should also contact your healthcare provider if the rash is oozing pus or bleeding. Individual sores that are open can themselves become infected with bacteria and lead to complications or more severe illnesses. Use the worksheet at the end of this guide to document symptoms and other details that may assist the healthcare provider in determining the cause of the rash illness.

Because rashes have various causes, treatments can also vary. Some rashes may resolve with minimal effort, whereas others might require creams, ointments, or pills in order to fully resolve. Some types of rashes can be prevented by ensuring that your child is properly vaccinated.

ATHLETE'S FOOT

Caused by: Fungus



Description:

The rash of athlete's foot is red and scaly. It is typically found between the toes, but can also spread to the bottom and sides of feet.

Other symptoms to look for:

- Intense itching that increases with removal of socks and shoes
- Chronic dry, scaly skin

Rash may last:

Less than 1 week with treatment; months or years without treatment

How it spreads:

Contact with rash of an infected person or by contact with contaminated objects or areas, such as locker room floors or gyms

How to prevent it:

Use footwear in areas known for spread, such as pools and locker rooms. Do not share personal items, such as shoes or towels. Keep feet dry. If feet sweat, change socks regularly and use more than one pair of shoes on a regular basis.

CHICKENPOX (VARICELLA)

Caused by: Virus



Description:

Fluid-filled blisters appear in crops over a period of a few days. Typically, they first appear on the face and chest and then spread outward to the arms and legs. Individual blisters are itchy and can be painful. The blisters progress through several stages, including red flat to the skin, red raised, and fluid-filled on a red base. They eventually rupture and crust over. People will typically have 250 to 500 blisters during an infection with chickenpox unless vaccinated, in which case they will have many fewer.

Other symptoms to look for:

- Fever
- Fatigue

Rash may last:

About 5 to 10 days

How it spreads:

Respiratory droplets in the air

How to prevent it:

Vaccination around 1 year of age and again between 4 and 6 years of age

CONTACT DERMATITIS

Caused by: Allergic reaction



Description:

Rashes caused by contact dermatitis are typically red and raised with a dry appearance. Individual sores may be linear or have geometric patterns due to the leaves having brushed across the skin. The rash is often itchy and can include blisters.

Other symptoms to look for:

- Itching around site of rash

Rash may last:

Up to 1 month

How it spreads:

Not transmitted person to person; it is caused by exposure to an allergen.

How to prevent it:

Identify and remove exposure to the allergen.

COXSACKIE VIRUS (HAND, FOOT AND MOUTH DISEASE)

Caused by: Virus



Description:

Small red spots often begin toward the back of the mouth. When the rash develops on the skin over a period of about 1 to 2 days, the red spots may be flat or raised. The rash most often occurs on the palms of the hands or the soles of the feet, but it can also develop in other areas, such as the knees, elbows, buttocks or genital areas.

Other symptoms to look for:

- Fever (typically occurs before the rash develops)
- Difficulty eating or drinking (due to spots in mouth); lack of appetite
- Sore throat

Rash may last:

About 1 week

How it spreads:

Respiratory droplets in the air or contact with contaminated objects

How to prevent it:

Regularly clean and disinfect toys. Exercise good hygiene, such as handwashing. Avoid close contact with infected individuals, such as kissing, hugging or sharing utensils.

ECZEMA

Caused by: Allergic reaction

Other symptoms to look for:

- Itching around site of rash

Rash may last:

Occurs intermittently and is variable in length of duration

How it spreads:

Not transmitted person-to-person; an inherited condition that periodically worsens

How to prevent it:

Use gentle, non-soap cleaners. Moisturize skin regularly. Minimize stressors, such as fragrances, detergents, chemicals and smoke.



Description:

Eczema causes an itchy rash that appears as scaly, pink and slightly elevated patches.

FIFTH DISEASE

Caused by: Virus



Description:

This red, itchy rash typically starts on the face and can spread to the chest, back, buttocks or limbs. It can be more or less visible over a period of weeks and may evolve to have a lacy appearance as it clears.

Other symptoms to look for:

- Fever
- Runny nose
- Headache
- Pain and swelling in joints (more common in adults)

Rash may last:

About 7 to 10 days

How it spreads:

Respiratory droplets in the air

How to prevent it:

Practice good hand hygiene and cough and sneeze etiquette. Don't touch eyes, nose, or mouth. Avoid people who are ill, and stay away from others when you are ill. People with this infection are most contagious one or two days before the rash appears when they have cold-like symptoms.

HEAT RASH

Caused by: Allergic reaction



Description:

A heat rash appears as clusters of red or pink bumps that look like pimples. The rash may be itchy and tends to appear in areas with skin folds, such as elbows, neck, groin, and under breasts.

Other symptoms to look for:

- None

Rash may last:

About 3 to 4 days

How it spreads:

Not spread from person-to-person; caused by a reaction to certain environmental conditions, like heat

How to prevent it:

Dress appropriately for the weather, particularly during warm weather. Keep skin cool and dry.

HIVES

Caused by: Allergic reaction



Description:

Pale red bumps of varying size form suddenly and may join together to cover large areas of skin.

Other symptoms to look for:

- Swelling around eyes, lips, hands, feet or genitals
- Swelling of the throat, tongue or lungs leading to respiratory distress

This is a medical emergency; seek immediate medical attention.

Rash may last:

Variable – 1 day to weeks

How it spreads:

Not spread from person-to-person; caused by an allergic reaction

How to prevent it:

Identify and avoid the allergen.

Swelling of the throat, tongue or lungs is a medical emergency; seek immediate medical attention!

IMPETIGO

Caused by: Bacteria



Description:

Impetigo rashes may take one of two forms. One is characterized by tiny red pimples or red areas that ooze and crust with a honey-colored appearance. The other is characterized by blisters that break open easily and tend to spread to areas including the face, trunk and limbs. The affected areas are often itchy. Infections may vary in the size of the area affected.

Other symptoms to look for:

- Itching in area of rash

Rash may last:

2 or 3 weeks without treatment; 2 or 3 days with treatment

How it spreads:

Infection occurs when bacteria enter a cut or wound.

How to prevent it:

Clean and cover wounds, including cuts, scrapes and insect bites.

KAWASAKI DISEASE

Caused by: Unknown



Description:

Rash is red and swollen and often affects the trunk and genital area. In some cases the palms of the hands and the soles of the feet are affected. As the disease progresses, the hands and feet often peel with the skin coming off in large pieces.

Other symptoms to look for:

- High fever for at least 5 days
- Swelling of hands, feet, mouth, lips and throat
- Red, irritated eyes and lips
- Swollen glands
- Joint pain (later in illness)
- Vomiting and diarrhea (later in illness)
- Occasionally affects the arteries that supply blood to the heart

Rash may last:

Several weeks

How it spreads:

Uncertain, but doesn't spread from person-to-person

How to prevent it:

Unknown

MEASLES

Caused by: Virus

Description:

Small white spots with bluish centers, referred to as Koplik's spots, are present inside the mouth on the lining of the cheeks, roof of mouth and inside of lips. One or two days later a red rash develops starting at the hairline and spreading onto the trunk then the arms and legs over a period of about 3 to 4 days.

Other symptoms to look for:

- High fever
- Fatigue; lack of energy
- Pink, watery eyes
- Cough
- Pneumonia
- Encephalitis (infection of the brain)

Rash may last:

Koplik's spots last in mouth 3 to 4 days; body rash lasts about 1 week

How it spreads:

Respiratory droplets in the air

How to prevent it:

Vaccination at 1 year of age and a second dose around 4 to 6 years of age



MOLLOSCUM CONTAGIOSUM

Caused by: Virus



Description:

Small white, pink or skin-colored bumps typically have a dimple in the middle. While they are typically firm, smooth and painless, they can become swollen, red and sore later in the infection.

Other symptoms to look for:

- None

Rash may last:

About 6 to 24 months

How it spreads:

Contact with the rash or contaminated objects

How to prevent it:

Practice good hand hygiene. Avoid contact with sores. Do not share personal items, such as towels.

RINGWORM

Caused by: Fungus



Description:

Most often in the shape of a red ring with a skin-colored middle. The rash can occur anywhere on the body and is characterized by a scaly, raised surface that may crack or blister.

Other symptoms to look for:

- Loss of hair in area of rash
- Nails in area of infection may become thick and discolored

Rash may last:

About 1 month with treatment

How it spreads:

Contact with an infected person or animal or with contaminated clothing or personal items

How to prevent it:

Avoid contact with the wound. Don't share personal items, such as towels. Keep feet covered in high risk areas, such as gyms, pools and locker rooms.

ROSEOLA

Caused by: Virus



Description:

Small pink, slightly raised bumps typically begin on the chest and then spread to the face, arms and legs.

Other symptoms to look for:

- High fever that lasts 3 to 5 days
- When the fever breaks, the rash appears.

Rash may last:

About 1 to 3 days

How it spreads:

Respiratory droplets in the air

How to prevent it:

Avoid contact with infected individuals.

RUBELLA

Caused by: Virus



Description:

Only about 2 of every 3 people get a rash; however, for those who do, the red rash tends to start on the face and neck before spreading to the rest of the body.

Other symptoms to look for:

- Swollen glands behind the ears
- Low fever
- Fatigue; lack of energy
- Pink eye

Rash may last:

About 1 to 3 days

How it spreads:

Respiratory droplets in the air

How to prevent it:

Vaccination at 1 year and again between 4 and 6 years of age

SCABIES

Caused by: Parasite



Description:

Small pimples or bumps that are intensely itchy. Although the rash can develop over the entire body, it tends to develop in areas where skin folds, such as elbows, underarms, wrists, palms, soles, waist, in the webbing of fingers, or in the areas of the genitals, nipples or buttocks.

Other symptoms to look for:

- Intense itching, especially at night
- Burrows near surface of skin may be noticeable as grayish-white or skin colored lines

Rash may last:

Rash remains throughout course of infestation; individual mites can live for 1 to 2 months on a person

How it spreads:

Close contact with infected individuals; sometimes through contact with contaminated clothing, towels or bedding

How to prevent it:

Practice good hygiene. Avoid contact with infected skin.

SCARLET FEVER

Caused by: Bacteria



Description:

This rash progresses from red skin to fine bumps that feel like sandpaper and finally, the affected skin peels. Skin creases in the affected area tend to appear more intensely red than the surrounding skin. Most commonly, the rash occurs on the neck, underarm and groin.

Other symptoms to look for:

- Fever
- Sore, red throat
- Chills
- Vomiting and abdominal pain
- Whitish coating on tongue
- Red bumpy appearance of tongue (may be described as a “strawberry” tongue)
- Headache
- Body aches
- Swollen glands

Rash may last:

About 1 week; peeling that follows rash may last up to 6 weeks

How it spreads:

Respiratory droplets in the air

How to prevent it:

Practice good hand hygiene. Avoid sharing personal items, such as utensils, linens, and towels. Avoid contact with infected individuals.

SHINGLES

Caused by: Virus



Description:

This red rash typically develops in clusters along a nerve, such as near the eye or around the waist.

Other symptoms to look for:

- Severe, often long-lasting pain along the affected nerve; may be constant or intermittent
- Intense itching at site of pain

Rash may last:

About 1 week to 10 days

How it spreads:

Shingles is a reactivation of the chickenpox virus from a previous infection. Although you cannot catch shingles from someone with shingles, you can get chickenpox from someone with shingles if you've never had chickenpox before.

How to prevent it:

Vaccination at age 60 years of age with a single dose of shingles vaccine. A new vaccine currently under consideration would require two doses.

SMALLPOX

Caused by: Virus



Description:

This rash of raised bumps typically starts inside the mouth before moving to the face and arms, then finally to the legs and trunk of the body. Bumps can be found on the palms of the hands and soles of the feet.

Other symptoms to look for:

- High fever
- Lack of energy; weakness, fatigue
- Headache
- Backache

Rash may last:

Progression over about 6 days

How it spreads:

Respiratory droplets in the air

How to prevent it:

Thanks to the smallpox vaccine, smallpox has been eliminated from the face of the earth. If this disease was re-introduced into society by an act of bioterror, vaccination would be resumed. However, because the vaccine had a high rate of side effects, the benefits of vaccination do not currently outweigh the risks.

MY FAMILY'S RASH HISTORY

Use these charts to document the rash history of family members:

Name: _____ Date of Birth: _____

Start Date	End Date	Diagnosis	Treatment	Seen By	Comments

Name: _____ Date of Birth: _____

Start Date	End Date	Diagnosis	Treatment	Seen By	Comments

MY FAMILY'S RASH HISTORY

Name: _____ Date of Birth: _____

Start Date	End Date	Diagnosis	Treatment	Seen By	Comments

Name: _____ Date of Birth: _____

Start Date	End Date	Diagnosis	Treatment	Seen By	Comments

MY FAMILY'S RASH HISTORY

Name: _____ Date of Birth: _____

Start Date	End Date	Diagnosis	Treatment	Seen By	Comments

Name: _____ Date of Birth: _____

Start Date	End Date	Diagnosis	Treatment	Seen By	Comments

DETAILS FOR THE DOCTOR

Seemingly minor details may be helpful for healthcare providers in making a diagnosis. For that reason, you may want to observe and record the following:

When was the rash first noticed?

How did you first notice the rash?

What parts of the body are affected?

What does the rash look like?

Is there any discharge from the rash (blood, pus)?

Is the rash itchy, spreading or has it changed in any way since it developed?

Are any other symptoms occurring now or in the days leading up to development of the rash (fever, pain, irritability, etc.)?

Has the person had this type of rash before?

Has the person been exposed to anyone else with a similar rash or other symptoms?



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Rashes: What You Should Know provides basic information about illnesses that often cause rashes to assist with understanding what to expect and to guide conversations with healthcare providers. The guide is not meant to replace specific medical advice or treatment by a healthcare professional.

This information was written and produced by the Vaccine Education Center in collaboration with the Dermatology Department at Children's Hospital of Philadelphia. The VEC was formed in October 2000 to provide accurate, comprehensive and up-to-date information about vaccines and the diseases they prevent.

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Get more information about:

Rashes: **vaccine.chop.edu/rashes**

Vaccines: **vaccine.chop.edu**

CHOP Dermatology Department:

www.chop.edu/centers-programs/dermatology

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