# Rash or Redness - Widespread



Schmitt-Thompson Clinical Content

## DEFINITION

- Rash over large areas or most of the body (widespread or generalized)
- Occasionally just on hands, feet and buttocks - but both sides of body
- Red or pink rash
- Small spots, large spots or solid red (erythroderma)

## TRIAGE ASSESSMENT QUESTIONS

### Call EMS 911 Now

Purple or blood-colored rash WITH fever within last 24 hours

*R/O: meningococcemia, Rocky Mountain spotted fever*

Sudden onset of rash (within 2 hours) and also has difficulty with breathing or swallowing

*R/O: anaphylaxis. First Aid: give epinephrine IM if have it.*

Too weak or sick to stand

*R/O: toxic shock syndrome or septic shock*

Signs of shock (very weak, limp, not moving, gray skin, etc.)

Sounds like a life-threatening emergency to the triager

### See More Appropriate Protocol

Taking a prescription medicine now or within last 3 days (Exception: allergy or asthma medicine)

*Go to Protocol: Rash - Widespread on Drugs (Pediatric)*

Hives suspected

*Go to Protocol: Hives (Pediatric)*

Received MMR vaccine 6 - 12 days ago and mild pink rash mainly on the trunk

*Go to Protocol: Immunization Reactions (Pediatric)*

Probable Roseola rash (age 6 mo - 3 years and fine pink rash and follows 3 to 5 days of fever)

*Go to Protocol: Roseola (Pediatric)*

Chickenpox suspected

*Go to Protocol: Chickenpox - Diagnosed or Suspected (Pediatric)*

Bright red cheeks and pink, lace-like rash of upper arms or legs

*Go to Protocol: Fifth Disease (Pediatric)*

Small red spots and small water blisters on the palms, soles, fingers and toes

*Go to Protocol: Hand-Foot-Mouth Disease (Pediatric)*

Hot tub dermatitis suspected

*Go to Protocol: Hot Tub Dermatitis (Pediatric)*

Eczema has been diagnosed in past and eczema flare-up suspected

*Go to Protocol: Eczema Follow-Up Call (Pediatric)*

## Go to ED/UCC Now (or to Office with PCP Approval)

Menstruating and using tampons

*R/O: toxic shock syndrome*

Not alert when awake ("out of it")

*R/O: altered mental status*

Purple or blood-colored rash WITHOUT fever within last 24 hours

*R/O: petechiae or purpura*

Bright red skin that peels off in sheets

*R/O: staph scalded skin syndrome*

Child sounds very sick or weak to the triager

*Reason: severe acute illness or serious complication suspected*

## Go to Office Now

Fever

*R/O: scarlet fever, roseola, measles, Rocky Mountain spotted fever*

Wound infection also present

*R/O: staph or strep exotoxin rash*

Bloody crusts on lips

*R/O: Stevens-Johnson syndrome*

## Discuss With PCP and Callback by Nurse Within 1 Hour

Monkeypox rash suspected (unexplained rash often starting on the face or genital area, then spreading quickly to the arms and legs) and KNOWN monkeypox exposure in last 21 days (Note: exposure means close contact with person who has a confirmed diagnosis of monkeypox)

*Reason: PCP to determine the most appropriate site to be seen.*

## See in Office Today

Sore throat

*R/O: scarlet fever*

Severe widespread itching (interferes with sleep or normal activities) not improved after 24 hours of steroid cream/oral Benadryl

Child attends child care or school and cause of rash unknown

*Reason: may need PCP clearance to return*

Monkeypox rash suspected by TRIAGER (unexplained rash often starting on the face or genital area, then spreading quickly to the arms and legs) and NO known monkeypox exposure in last 21 days (Exception: classic hand-foot-mouth disease, hives, insect bites, etc.)

## See in Office Within 3 Days

Rash not typical for viral rash (Viral rashes usually have symmetrical pink spots on the trunk. See Home Care)

Widespread peeling skin and cause unknown

*R/O: missed scarlet fever rash 1 week earlier*

Rash present > 3 days

*R/O: viral exanthem, pityriasis rosea, insect bites*

Itchy rash that's not hives

*R/O: eczema, dry skin, insect bites, pityriasis rosea*

Triager thinks child needs to be seen for non-urgent problem

Caller wants child seen for non-urgent problem

## Home Care

Measles vaccine rash (fine pink rash and 6-12 days after measles vaccine)

Probable Roseola rash (age 6 mo - 3 years and fine pink rash and follows 3 to 5 days of fever)

Mild widespread rash present 3 days or less and no fever

*R/O: afebrile viral exanthem*

## HOME CARE ADVICE

**Unexplained Rash Without a Fever**

1. **Reassurance and Education - Unexplained Rash Without a Fever:**
   - Most widespread pink rashes are part of a viral illness (non-specific viral exanthem). These rashes are harmless.
   - This is especially likely if the child also has a cold, cough, or diarrhea.
   - Some are simply a heat rash.
2. **Non-Itchy Rash Treatment:**
   - No treatment is necessary, except for heat rashes which respond to cool baths.
3. **Itchy Rash Treatment:**
   - Wash the skin once with soap to remove irritants.
   - Hydrocortisone Cream: For relief of itching, apply 1% hydrocortisone cream OTC 3 times per day to the itchy areas.
   - Cool Bath: For flare-ups of itching, give your child a cool bath without soap for 10 minutes. (Caution: avoid any chill). Optional: can add baking soda, 2 ounces (60 ml) per tub.
4. **Contagiousness:**
   - If your child has a fever, avoid contact with other children and especially pregnant women until a diagnosis is made.
   - Most viral rashes are contagious (especially if a fever is present).
   - Your child can return to day care or school after the rash is gone or your doctor says it's safe to return with the rash.
5. **Expected Course:**

- Most viral rashes disappear within 48 hours.

6. **Call Back If:**
   - Your child becomes worse

**Measles Vaccine Rash**

1. **Reassurance and Education - Measles Vaccine Rash:**
   - 5% of children develop a pink rash mainly on the trunk 6-12 days after a measles vaccine.
   - A fever also occurs in most of these children.
2. **Treatment:**
   - The rash is harmless and not contagious.
   - Creams or medicines are not needed.
3. **Expected Course:**
   - The measles vaccine rash lasts 2 to 3 days.
4. **Call Back If:**
   - Rash changes to purple spots or dots
   - Rash or fever lasts over 3 days
   - Your child becomes worse

**Roseola Rash**

1. **Reassurance and Education - Roseola Rash:**
   - Most children get Roseola between 6 months and 3 years of age.
   - By the time they get the rash, the fever is gone and they feel fine.
   - The rash lasts 1 - 3 days.
2. **Treatment:**
   - The rash is harmless.
   - Creams or medicines are not needed.
3. **Contagiousness:**
   - Once the fever is gone for 24 hours, the disease is no longer contagious. (AAP)
   - Even if rash still present, your child can return to child care or school.
   - Children under 3 and exposed to your child may come down with Roseola in about 9-10 days.
4. **Expected Course:**
   - The Roseola rash lasts 1-3 days.
5. **Call Back If:**
   - Rash changes to purple spots or dots
   - Rash lasts over 3 days
   - Fever recurs
   - Your child becomes worse

## FIRST AID

**First Aid for Anaphylaxis - Epinephrine (pending EMS arrival)**:

- Anaphylaxis is a life-threatening allergic reaction.
- If you have epinephrine (such as Epi-pen), give it now.
- Give epi first. Then call 911.

- Give the shot into the upper outer thigh in the leg straight down.
- Can be given through clothing if needed.
- A second (repeat) injection should be given if there is no improvement in 10 minutes.
- Over 66 pounds (30 kg): Give 0.3 mg. Epi-Pen or Auvi-Q (Allerject in Canada).
- 22-66 pounds (10-30 kg): Give 0.15 mg. Epi-Pen Jr. or Auvi-Q.
- Less than 22 pounds (10 kg): Give dose advised by your doctor.
- Auvi-Q also has a 0.1 mg epinephrine auto-injector for toddlers 16-33 pounds (7.5 - 15 kg).
- Benadryl: After giving the epi and calling 911, give Benadryl or other short-acting antihistamine by mouth. Do this if your child is able to swallow. Liquid or chewable Benadryl gives faster results than pills.
- RN Recheck: For severe symptoms that require epinephrine, call back in 10 minutes. Reason: confirm that 911 was called after epi was given.

**First Aid Advice for Anaphylactic Shock**

- Lie down with feet elevated.

## BACKGROUND INFORMATION

**Matching Pediatric Care Advice (PCA) Handouts for Callers**

Detailed home care advice instructions have been written for this protocol. If your software contains them, they can be sent to the caller at the end of your call. Here are the names of the pediatric handouts that are intended for use with this protocol:

- Rash Widespread - Cause Unknown
- Roseola
- Viral Rash
- Pityriasis Rosea

**Causes of Widespread Rash or Redness**

- **Viral Rash.** Most rashes are part of a viral illness. Viral rashes usually have small pink spots. They occur on both sides of the chest, stomach and back. Your child may also have a fever with some diarrhea or cold symptoms. They last 2 or 3 days. More common in the summer.
- **Roseola.** This is the most common viral rash in the first 3 years of life. (See details below).
- **Chickenpox.** A viral rash with a distinctive pattern. (see that protocol)
- **Hand-Foot and-Mouth Disease.** A viral rash with a distinctive pattern. (see that protocol)
- **Scarlet Fever.** Scarlet Fever is a speckled, red rash all over. Caused by the Strep bacteria. Starts on upper chest and quickly spreads to lower chest and stomach. No more serious than a Strep throat infection without a rash.
- **Drug Rash.** Most rashes that start while taking an antibiotic are viral rashes. Only 10% turn out to be drug rashes. (see details below)
- **Hives.** Raised pink bumps with pale centers. Hives look like mosquito bites. Rashes that are bumpy and itchy are often hives. Most cases of hives are caused by a virus. Hives can also be an allergic reaction. (See that protocol for details)
- **Heat Rash.** A fine pink rash caused by overheating. Mainly involves neck, chest and upper back.
- **Insect Bites.** Insect bites cause small red bumps. Flying insects can cause many bumps on exposed skin. Non-flying insects are more likely to cause localized bumps.
- **Hot Tub Rash.** Causes small red bumps that are painful and itchy. Mainly occurs on skin covered by a bathing suit. Rash starts 12-48 hours after being in hot tub. Caused by overgrowth of bacteria in hot tubs.
- **Petechiae Rash (Serious).** Petechiae are tiny (2 mm) purple or dark red colored dots. They come

from bleeding into the skin. Scattered petechiae with a fever are caused by Meningococcemia until proven otherwise. This is a life-threatening bacterial infection of the bloodstream. Peak age is 3 to 6 months old. Unlike most pink rashes, petechiae don't fade when pressed on.

- **Purpura Rash (Serious).** Purpura are purple or dark red colored spots (look like bruises). They come from bleeding into the skin. Widespread purpura is always an emergency. It can be caused by a bacterial bloodstream infection. Rocky Mountain Spotted Fever is an example. Unlike most pink rashes, purpura rashes don't fade when pressed on.
- **Blister Rash (Serious).** Widespread blisters on the skin are a serious sign. It can be caused by infections or drugs. Stevens Johnson Syndrome is an example.
- **Caution.** All widespread rashes with fever need to be seen. They need to be diagnosed. Reason: There are some serious infections that can cause this type of rash.

**Monkeypox Disease: Basics**

- Monkeypox is a rare disease caused by the monkeypox virus.
- Monkeypox remains an extremely rare disease in pediatrics (less than 1% of total cases). Usually these children have household exposure to someone that has it.
- **Diagnosis:** Suspected by appearance of rash and monkeypox contact. Diagnosis confirmed by lab test on fluid from monkeypox sore.
- **Incubation period:** Symptoms usually start between 1 to 2 weeks after exposure. Range is from 4 to 21 days.
- **Contagious period:** A person can spread monkeypox from the time symptoms start until all the monkeypox sores have crusted over and fallen off (usually 7 to 14 days).
- **Spread:** Monkeypox spreads from person-to-person by direct skin contact. For example, spread can occur during intimate contact and sex. Most current cases occur in adult men who have sex with other men.
- **Isolation is Needed:** To protect others, stay at home (isolate) until all of the scabs have fallen off the monkeypox spots and the skin is healing. Avoid close contact with others in your home.
- **Treatment:** Symptoms are treated with home remedies and OTC meds. Prescription medicines are not needed for most healthy people.
- **Outcome:** Most healthy people do not develop any complications. Death rate is less than 1 percent.
- **Vaccine:** There is a vaccine available to help prevent monkeypox in people who are exposed as well as those that are at high-risk.

**Monkeypox Rash Appearance**

- Initial symptoms are fever, headache, muscle ache and swollen lymph nodes. These symptoms last 1 to 5 days. Small sores may appear in the mouth.
- A rash appears about 1 to 3 days after the start of the fever. Sometimes people get the rash first and afterwards other symptoms.
- The rash usually starts on the face, sometimes on the genital area. It spreads quickly within 24 hours to the arms and legs, even the palms and soles.
- Each monkeypox sore is about 0.5 cm to 1 cm wide. Each sore progresses through the following stages: small red spot (macule), small red bump (papule), small water blister (vesicle), small cloudy blister (pustule). Then, the sore crusts over and the scab falls off. The entire process takes about 2 weeks.
- The rash is usually the same size and at the same stage on different areas of the body, unlike chickenpox.

**Bumpy Red Rashes versus Flat Red Rashes**

- Have the caller feel the rash and tell you if it is flat (smooth) or bumpy (raised).
- This will often help you eliminate certain causes. The best example is hives, which are always bumpy.
- Bumpy rashes: hives, insect bites, heat rash, chickenpox

- Flat rashes: roseola, nonspecific viral rashes, measles, Fifth disease, nonallergic amoxicillin rash
- Scarlet fever is flat but it feels rough and sandpapery.

**Roseola – Classic Rash**

- Pink, small, flat (non-bumpy) symmetrical spots on trunk, then spreading to face and extremities
- Classic feature: Rash is preceded by 3 to 5 days of high fever without any other symptoms
- Onset of rash is 12 to 24 hours after fever resolves
- Rash persists 1 to 3 days
- Common physical finding: Enlarged sub-occipital lymph nodes
- Cause: Human herpes virus 6 (HHV6)
- Age of onset: 6 months to 3 years
- Complication: Febrile seizures, HHV6 accounts for 25% of all febrile seizures

**Hand-Foot-Mouth Disease: Classic Rash**

- Hand-foot-mouth disease due to Coxsackie viruses is the most common cause of multiple ulcers in the mouth. The painful ulcers are mainly on the tongue and sides of the mouth.
- Because it's very contagious, over 90% of children acquire this infection between 1 and 5 years of age.
- Only 70% of children develop the classic vesicles on the palms, soles, fingers and toes. About 30% also get a rash on the buttocks.

**2012 Outbreak of Severe HFM Disease**

- Symptoms: almost confluent papules or thick-walled vesicles of the forearms, hands, lower legs and feet. Increased fever and pain. 70% had vesicles and 65% progressed to scab formation.
- Cause: Coxsackie A6
- International distribution: first reported in Finland, Japan, Taiwan and Singapore. Now in US.
- Complications: increased dehydration and need for hospitalization. Also increased peeling of hands and feet, and some loss of nails.
- Source: CDC, MMWR 2012; 61: 213-214

**Signs of Rocky Mountain Spotted Fever**

- Early diagnosis of this tick-borne rickettsial disease reduces morbidity and mortality
- It is treatable with the antibiotic doxycycline
- The 4 most common symptoms are:
- Fever 98%
- Rash (widespread) 97%
- Vomiting 73%
- Headache 61%
- Recent tick bite 49%
- Reference: Buckingham, J. Pediatr, 2007

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