

# Hot Tub Dermatitis

## Definition

- A painful or itchy rash caused by overgrowth of bacteria in hot tubs
- Onset of rash: 8-48 hours after being in hot tub
- Easy to diagnose based on a rash starting after being in a hot tub
- Rash in others who shared the hot tub helps make the diagnosis

## Health Information

### SYMPTOMS of Hot Tub Dermatitis (HTD)

- Rash: painful and tender, small red bumps.
- Often develop a pus-filled pimple in the center.
- Size: 1/4 to 1/2 inch (6-12 mm). If the pimple is scratched, a scab will occur.
- Number of red bumps: many. Rash is the same on both sides of the body.
- May look like insect bites, but usually more tender than itchy.
- Mainly occurs on skin covered by a bathing suit. Most common sites are the buttocks, groin and belly. The head and neck are spared.
- Can just involve the bottom of the feet, if caused by a dirty wading pool. Gives red lumps on soles of feet that make it painful to walk. Called "hot foot syndrome".
- Onset of rash: 12-48 hours after being in hot tub. (Range: 8 hours to 4 days)
- Lymph nodes may also be tender.
- Feel tired and sick: 40%
- Low grade fever: 20%

### Cause of HTD

- Hot tub dermatitis is a bacterial infection of the hair follicles. Pseudomonas is the name of the bacteria.
- Low levels of chlorine or other disinfectant in hot tubs leads to overgrowth of bacteria.
- Attack rate: 20 to 100% of those exposed. Higher rate in children.
- Longer exposure time increases the risk.

### Prevention of HTD

- Keep chlorine (or bromine) in hot tubs and pools at the correct levels.
- It's like the chlorine in swimming pools. This chemical keeps bacteria from growing in the water.
- Check level daily before using the hot tub.
- Stay out of cloudy water or green water.
- Showering after use of a hot tub will not protect you from HTD.

## Care Advice

### 1. Overview:

- Hot Tub Dermatitis (HTD) is a bacterial infection of hair follicles.
- The bacteria grows in hot tubs where the chlorine level is too low.
- HTD causes small red bumps, often with a tiny pimple in the center.
- The bumps tend to be more painful than itchy.
- The rash is harmless and will go away on its own.
- Here is some care advice that should help.

## 2. **Treatment for Painful Rash:**

- Most children don't need any treatment.
- Keep the skin dry and cool. Reason: The germ that causes HTD is very sensitive to drying.
- For bathing, take brief showers. Avoid soaking in water (baths or hot tubs). Reason: could make rash worse or delay healing.
- White vinegar (5% acetic acid). It may be helpful. Put on the most involved areas for 5 minutes twice a day. Use a cotton ball or wash cloth. Reason: It is a mild acid that can kill this bacteria.

## 3. **Pain Medicine:**

- For pain relief, give acetaminophen (such as Tylenol) every 4 hours or ibuprofen every 6 hours as needed.

## 4. **Hydrocortisone Cream for Itching:**

- Sometimes, the rash is itchy. If so, a steroid cream may help.
- Apply 1% hydrocortisone cream to the most itchy spots. No prescription is needed.
- Use it 3 times per day.

## 5. **Allergy Medicine for Severe Itching:**

- For severe itching, an oral allergy medicine should help.
- Age Over 1 Year: Give Benadryl up to 4 times per day as needed. No prescription is needed.
- Age Over 2 Years: Another option is to give cetirizine (Zyrtec) each morning. No prescription is needed.

## 6. **What to Expect:**

- HTD goes away on its own in 7-10 days.
- Rarely, can have crops of itchy red lumps that come back for 1-3 months.
- The rash may leave some patches of darker skin. Normal skin tone will return in 6 months or less.

## 7. **Return to School:**

- HTD cannot spread from person to person.
- Children with HTD do not need to miss any school.

## **Call Your Doctor If**

- One area starts to look infected (spreading redness)
- Rash lasts over 2 weeks
- You think your child needs to be seen
- Your child becomes worse

## **Pediatric Care Advice**

**Author:** Barton Schmitt MD, FAAP

**Copyright 2000-2022** Schmitt Pediatric Guidelines LLC

**Disclaimer:** This health information is for educational purposes only. You the reader assume full responsibility for how you choose to use it. The information contained in this handout should not be used as a substitute for the medical care and advice of your pediatrician. Listing of any resources does not imply an endorsement.