



Insect Bites

Symptoms

- Insect bites usually cause a small red bump.
- Often it looks like localized hives (one large one or several small ones)
- Sometimes a small water blister occurs in the center of the bump, especially in younger children.
- Itchy Insect Bites: Bites of mosquitoes, chiggers (harvest mites), fleas, and bedbugs usually cause itchy, red bumps.
- Painful Insect Bites: Bites of horseflies, deer flies, gnats, fire ants, harvester ants, blister beetles, and centipedes usually cause a painful, red bump. Within a few hours, fire ant bites can change to blisters or pimples.

Mosquito Bites: Types of Reactions

- In North America, mosquito bites are usually just an annoyance, causing very itchy red skin bumps. Often, it looks like localized hives (one large one or several small ones).
- When a mosquito bites an individual, various chemicals are injected into the skin. The red bumps are actually the body's allergic reaction to these chemicals. The skin reaction can look like a hive.
- Suspect mosquito bites if there are bites on other parts of the body. Mosquito bites of the upper face can cause eyelid to swell up for several days. With bites, the swelling can be pink as well as large (especially age 1-5 years).
- However, the mosquito can sometimes be a carrier of blood-borne diseases (e.g., West Nile Virus).

Anaphylaxis

- A severe life-threatening allergic reaction is called anaphylaxis.
- The main symptoms are difficulty breathing and swallowing starting within 2 hours of the sting. Onset usually is within 20 minutes.
- Anaphylaxis can occur with bee, yellow jacket, wasp, or fire ant stings. Anaphylactic reactions are very rare following other insect bites.

First Aid:

First Aid Advice for Anaphylaxis - Epinephrine (pending EMS arrival)

- If you have epinephrine (Epi-pen or Twinject), give it now.
- Do this while calling 911 (Reason: life-saving advice).
- Over 66 pounds (30 kg): 0.3 mg. Auto-inject Epi-Pen or give 0.3 ml Twinject.
- 33-66 pound (15-30 kg) child: 0.15 mg. Auto-inject Epi-Pen Jr. or give 0.15 ml Twinject.
- Less than 33 pounds (15 kg) child: Give dosage recommended by your doctor. (or 0.1 ml if you have an epinephrine ampule).
- Inject it into the muscle (IM) of the upper outer thigh.
- Can be given through clothing if necessary.
- Benadryl: After giving epinephrine, give oral Benadryl or other antihistamine, if the child is able to swallow.

First Aid Advice for Anaphylactic Shock

- Lie down with feet elevated.

Care Advice

Treatment for Insect Bites

1. Reassurance:
 - a. Most insect bites result in a red bump. Some are larger (like a hive). Some have a small water blister in the center. These are normal reactions to an insect bite.
 - b. A large hive at the bite site does not mean your child has an allergy.
 - c. The redness does not mean the bite is infected.
2. Itchy Insect Bites (including all mosquito bites):
 - a. Steroid Cream: To reduce the itching, use 1% hydrocortisone cream (no prescription needed). Apply 4 times a day until the itch is gone. If not available, apply a baking soda paste until you can get some.
 - b. If neither is available, apply an ice cube in a wet washcloth for 20 minutes.
 - c. Also apply firm, sharp, direct, steady pressure to the bite for 10 seconds to reduce the itch. A fingernail, pen cap, or other object can be used.
 - d. Antihistamine: If the bite is very itchy after local treatment, try an oral antihistamine such as Benadryl (no prescription needed). Sometimes it helps, especially in allergic children.
3. Painful Insect Bites:
 - a. Rub the bite for 15 to 20 minutes with a cotton ball soaked in a baking soda solution once. This will usually reduce the pain.
 - b. You can also apply an ice cube in a wet washcloth for 20 minutes.
 - c. Give acetaminophen (e.g., Tylenol) or ibuprofen for pain relief.
 - d. Antihistamines don't help.
4. Antibiotic Ointment:

- a. If the insect bite has a scab on it and the scab looks infected, apply an antibiotic ointment such as Polysporin 3 times per day (no prescription needed).
 - b. Cover the scab with a Band-Aid to prevent scratching and spread.
 - c. Repeat washing the sore, the antibiotic ointment and the Band-Aid 3 times per day until healed.
 - d. Caution: For spreading infections (redness or red streaks), your child needs to be seen.
5. Expected Course:
- a. Most insect bites are itchy for several days.
 - b. Any pinkness or redness usually lasts 3 days.
 - c. The swelling may last 7 days.
 - d. Insect bites of the upper face can cause severe swelling around the eye, but this is harmless.
 - e. The swelling is usually worse in the morning after lying down all night. It will improve after standing for a few hours.
6. Call Your Doctor If:
- a. Severe pain persists over 2 hours after pain medicine
 - b. Infected scab doesn't improve after 48 hours of antibiotic ointment
 - c. Bite looks infected (new redness starts after 48 hours)
 - d. Your child becomes worse

Prevention of Insect Bites

1. Prevention:
 - a. Wear long pants, long-sleeved shirts and a hat
 - b. Avoid being outside when the insect is most active. Many insects that cause itchy bites are most active at sunrise or sunset (e.g., chiggers, no-see-ums, mosquitoes).
 - c. Insect repellents containing DEET are effective in preventing many insect bites. Read the label carefully.
2. DEET Products: Apply to skin.
 - a. DEET is a very effective mosquito repellent. It also repels ticks and other bugs.
 - b. The American Academy of Pediatrics (AAP) (2003) has approved the use of DEET in a concentration of 30% or less for all children over 2 months of age. Use 30% DEET if you need 6 hours of protection. Use 10% DEET if you only need protection for 2 hours.
 - c. Don't apply DEET to the hands if the child has thumbsucking or fingersucking (Reason: prevent ingestion)
 - d. Warn older children who apply their own repellent that a total of 3 or 4 drops can protect the whole body.
 - e. Apply to exposed areas of skin. Do not apply to eyes or mouth. Do not apply to skin that is covered by clothing. Don't put any repellent on areas that are

- sunburned or have rashes because the DEET is more easily absorbed in these areas.
- f. Remember to wash it off with soap and water when your child returns indoors.
 - g. Caution: DEET can damage clothing made of synthetic fibers, plastics (e.g., eye glasses), and leather. DEET can be applied to cotton clothing.
3. Permethrin Products: Apply to clothing.
- a. Permethrin-containing products (e.g., Duranon, Permanone) are highly effective mosquito repellents. They also repel ticks.
 - b. An advantage over using DEET is that they are applied to clothing instead of skin.
 - c. Apply it to shirt cuffs, pant cuffs, shoes and hat. You can also put it on other outdoor items (shoes, mosquito screens, sleeping bags).
 - d. Do not apply permethrin to skin, as it will lose effectiveness very quickly.
4. Picaridin Products:
- a. Picaridin is a newly approved repellent that is equivalent to 10% DEET
 - b. It can safely be applied to skin or clothing

When To Call

Call 911 Now (your child may need an ambulance) If

- For any of the following symptoms of anaphylaxis, see FIRST AID.
- Onset usually is within 20 minutes and always by 2 hours following the bite.
- Difficulty breathing or wheezing
- Hoarseness or cough with rapid onset
- Difficulty swallowing, drooling or slurred speech with rapid onset
- Previous severe life-threatening allergic reaction to same insect bite
- Difficult to awaken
- Confused thinking or talking

Call Your Doctor Now (night or day) If

- Your child looks or acts very sick
- Stiff neck (can't touch chin to chest)
- Hives or swelling elsewhere on the body
- More than 20 fire ant stings in a child under 1 year old

Call Your Doctor Within 24 Hours (between 8 am and 4 pm) If

- You think your child needs to be seen
- Severe pain is not improved 2 hours after pain medicine given
- New redness or red streak around the bite begins over 48 hours (2 days) after the bite

- Redness or red streak around the bite becomes larger than 1 inch
- Call Your Doctor During Weekday Office Hours If
- You have other questions or concerns
- Scab that looks infected (drains pus or increases in size) not improved after applying antibiotic ointment for 2 days

Adapted from The American Academy of Pediatrics (2011) at www.healthychildren.org