

How to stop bug bites from itching

August 9 2023



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Itching, stinging, and swelling really take the fun out of being outdoors and opening windows in the summer. Most bug bites (usually from



mosquitoes) stop itching after a day or two. Others can leave you or your child with bacterial infections, parasites, or viruses.

"During the summer we provide insects more opportunity to <u>bite</u>," says pediatric allergist and immunologist Joel Brooks, MPH, DO, "and the number of reported cases of disease from mosquito, tick, and flea bites has more than tripled in recent years according to the CDC."

Most bug bites do not cause problems and will resolve on their own, but that doesn't mean you shouldn't try to avoid them. Mosquitoes, ticks, and fleas cause the most bug bites—and carry diseases like West Nile and Lyme disease, which can be serious—so it's worth trying to avoid bug bites as much as possible.

We asked Brooks to tell us everything we should know about bugs and their bites.

Why do bug bites itch?

When bugs bite, they inject saliva, triggering your body to react. Your immune system fights substances in the bug saliva with a variety of mediators, such as histamine, which causes swelling, inflammation, and itchiness.

If you scratch a bite, it becomes more inflamed, causing more itch, and you increase the potential for infection.

What does a bug bite say about your immune system?

Everyone thinks their <u>immune system</u> is off when they see something they have not experienced before: a larger bump, a redder lump, an itchier itch, a stingier sting. But most of the time, any local reaction to a



bug bite says you're functioning normally. It's an appropriate response.

If you have a systemic reaction—symptoms beyond the site of the bite—your body is mounting a bigger immune response. Examples include an allergic reaction or infection that can be life-threatening.

What's a sign a bug bite is something more serious?

As long as the reaction stays localized—around the bite—it's usually not serious. It's normal for a bite or sting to swell and itch, which can last up to 48 hours, getting slightly better over time.

If the bite is getting worse after 24 hours, call your doctor and take photos to record the changes.

If you have reactions off-site—you were bit on the elbow, but your leg is swelling; you have hives everywhere; you are coughing, dizzy, nauseated, or vomiting; you have diarrhea or trouble breathing; or you fainted immediately or shortly after the bite or sting—it's time to call 911.

Why do some people get bit more than other people?

You may have heard that certain blood types are more appealing than others to insects, but the evidence is not there. We do know there is a genetic component and that certain people secrete chemical signals that insects are more attracted to

We also know mosquitos are attracted to people who exhale more <u>carbon</u> <u>dioxide</u>, have a higher body temperature, and have a limited variety of bacteria on their skin.

Insects are also attracted to people who are pregnant (possibly because



they exhale more carbon dioxide and have a higher body temperature), certain colors of clothing, and beer.

Is it OK to scratch a bug bite?

No. When you scratch an itchy bite you cause more inflammation and release more histamine—which is what caused the itch in the first place. So, scratching causes the bite to become more and more itchy and the swelling to become larger and larger.

Also, when you scratch, you're breaking down your skin. Scratching creates greater risk for developing skin infections and abscesses that cause systemic symptoms: fever, chills, nausea, and vomiting. An infection can last for days or longer and can be very serious without treatment.

When you see a bite or feel itchiness, it is best to treat the bite, and do not scratch.

How do you stop bug bites from itching?

The best way to stop feeling itchy is to not get bitten. Wearing pants and long-sleeved shirts is not everyone's favorite thing to do during the summer, but shorts and short sleeves put you at higher risk of bites and stings. Prevention is No. 1:

- Cover your body when outside, especially when hiking.
- Wear clothing treated with permethrin (an insecticide).
- Use window screens and/or air conditioning to keep windows closed.
- Keep doors to outside areas closed.
- Eliminate standing water outside.



• Use insecticide.

If I've been bitten, what should I do?

- Wash the site with soap and water or wipe with an antibacterial.
- Apply an ice pack to the site for 10 minutes and again as needed.
- Take a second-generation (non-drowsy) antihistamine: cetirizine, fexofenadine, or levocetirizine.
- Use an over-the-counter anti-itch or antihistamine cream, such as hydrocortisone, or a homemade baking soda paste.
- Do not use topical antibiotics, like mupirocin, unless there are signs of an infection or instructed by your doctor.

What do bug bites look like?

Bites and stings can look like many things and come in many shapes and sizes. As allergists we break it down by the offender to determine what is a concern:

Mosquitos

Mosquito bites appear as flesh, pink, or red-colored bumps on the skin and range in size from a few millimeters to a few centimeters. These bumps are usually harmless; the swelling and itch can last for a couple of days. Sometimes these bites cause local inflammatory reactions that appear as a large area of swelling, heat, redness, and itching/pain, which can mimic a skin infection. Unfortunately, mosquitos can also transmit harmful infections such as the West Nile virus, malaria, and Zika virus.

Bees/Wasps/Hornets

Bee, wasp, and hornet stings can look like mosquito bites in size and



shape, but often occur with sharp pain and swelling that usually fade into a dull ache after minutes to hours. Unlike bees, wasps and hornets are capable of stinging multiple times since they do not lose their stinger during the process. Some people are allergic to the venom in wasp and hornet stings, which can lead to severe, life-threatening, reactions. What to watch for: Yellowjackets are wasps that nest underground; hornets have cone-shaped nests in trees.

Spiders

Most spider bites only cause minor symptoms and appear as red bumps that can be itchy or painful with localized swelling. They may be scattered on different areas of the body. However, spider bites are not as common as people think.

The two most dangerous spider species in New York are the black widow and the brown recluse. Bites from these spiders are painful and they sometimes blister, causing areas of the skin to die off. They can also lead to systemic symptoms such as muscle pain and cramping, nausea and vomiting, fevers, high-blood-pressure, difficulty breathing, and, in rare cases, death.

Ticks

Ticks are large, blood-feeding insects that are responsible for the transmission of a variety of diseases, including Lyme disease and Rocky Mountain spotted fever. It is not always possible to distinguish the initial bite from other insect bites. Rashes that spread across the body and other systemic symptoms such as fevers and joint pain develop several days later. Lyme disease is famous for the "bulls-eye rash," but it is not always present!



Bed Bugs

Bites appear as small, red papules or bumps that last for several days. They are sometimes clustered or arranged in a line called "breakfast, lunch, and dinner." These bites are very itchy!

Scabies

Scabies is caused by mites that burrow into the skin, which results in a rash of small bumps and papules, often with scaling between fingers and toes, and intense itching. Scabies is very contagious with direct, skin-to-skin contact, including shaking hands and hugging.

Provided by Columbia University Irving Medical Center

Citation: How to stop bug bites from itching (2023, August 9) retrieved 6 May 2024 from https://medicalxpress.com/news/2023-08-bug.html

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