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Patient information: Hives (urticaria)

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HIVES OVERVIEW — Urticaria is the medical term for hives. Hives are raised areas of the skin that itch intensely and are red with a pale center ([picture 1](#)). Hives are a very common condition: about 20 percent of people have hives at some time during their lives.

Hives develop when there is a reaction that activates immune cells in the skin, called mast cells. When activated, these cells release natural chemicals. One important chemical is histamine, which causes itching, redness, and swelling of the skin in an area: a hive. In most cases, hives appear suddenly and disappear within several hours.

Hives usually respond well to treatment, which includes medicines and avoiding whatever triggered the hives.

More detailed information about hives is available by subscription. (See "[New onset urticaria: Epidemiology, clinical manifestations, and etiologies](#)" and "[New onset urticaria: Diagnosis and treatment](#)" and "[Chronic urticaria: Standard management and patient education](#)".)

HIVES SYMPTOMS

Skin appearance — Hives are raised areas that itch intensely and are sometimes red with a pale center ([picture 1](#)). In some cases, the raised areas enlarge and merge together ([picture 2](#)). Itching is usually the most bothersome symptom of hives, and it may be severe enough to interfere with work and sleep.

Severe pain, blood-blister like spots, and bruising of the skin are **NOT** typical of hives. Having hives along with a fever and joint pains is also NOT typical. These symptoms suggest a different condition called urticarial vasculitis, which requires a different treatment. (See "[Urticarial vasculitis](#)".)

Angioedema — In up to one-half of people with hives, a condition called angioedema also develops. Angioedema is similar to hives but occurs in the deeper layers of skin. (See "[An overview of angioedema: Clinical features, diagnosis, and management](#)".)

Symptoms of angioedema include:

- Puffiness of the face, eyelids, ears, mouth, hands, feet, and genitalia
- Swelling that usually affects one side of the body or affects one side more than the other
- A sensation of fullness or discomfort in the area of the swelling
- Slight redness of the skin, although the skin may also be normal in color

Hives as part of a serious allergic reaction — Hives can also occur as part of a more serious allergic reaction. You should see a doctor or nurse as soon as possible if you develop hives or angioedema suddenly, along with other symptoms, such as:

- Trouble breathing
- Tightness in the throat
- Nausea or vomiting
- Cramping abdominal pain
- Passing out

TYPES OF HIVES — Hives are classified based upon how long you have the hives. Hives can be:

- Acute (brief)
- Chronic (long-standing)
- Physical (triggered by certain types of physical stimulation, such as heat, cold, or sun exposure)

Of course, when you first get hives, you cannot tell how long they will last, and so you cannot tell if you have acute or chronic hives.

Although all types of hives look similar, they often have different triggers. Learning what triggers your hives can help you to avoid the trigger.

Acute hives — Most cases of hives are acute and will not last beyond a few days to a week or two. Triggers of acute hives can include the following:

- Infections — Infections can cause hives in some people. In fact, viral infections cause more than 80 percent of all cases of acute hives in children. A variety of viruses can cause hives, even routine cold viruses. The hives seem to appear as the immune system begins to clear the infection, sometimes a week or more after the illness begins. The hives usually persist for a week or two and then disappear.
- Drugs — Many types of drugs can trigger hives, including antibiotics and nonsteroidal antiinflammatory drugs (NSAIDs), such as aspirin, [ibuprofen](#), or [naproxen](#). (See "[Patient information: Allergy to penicillin and related antibiotics](#)".)

Painkillers (eg, [codeine](#) and [morphine](#)), muscle relaxants used in anesthesia, and IV contrast dye used in X-ray procedures can also trigger hives. (See "[Drug eruptions](#)".)

- Insect stings — Stings from certain insects (bees, wasps, hornets, fire ants) can cause hives around the area of the sting. (See "[Patient information: Bee and insect stings](#)" and "[Patient information: Fire ants](#)".)

If you get hives all over your body after an insect sting, this may be a sign of a more serious reaction called anaphylaxis. Anaphylaxis must be treated as soon as possible. (See "[Patient information: Anaphylaxis treatment and prevention](#)".)

- Food allergies — Food allergy can cause acute hives in some people. Food-associated hives typically appear within 30 minutes of eating the food. The foods most likely to cause hives in children include milk, eggs, peanuts, other nuts, soy, and wheat. The foods most likely to cause hives in adults include fish, shellfish, peanuts, and other nuts. (See "[Patient information: Food allergy symptoms and diagnosis](#)".)
- Physical contact — Hives can occur after you touch certain substances if you are allergic to them. For example, children who are allergic to dogs may get hives if a dog licks them. Other things that can cause hives (if you are allergic) include plants, raw fruits and vegetables, and latex (found in balloons, latex gloves, condoms, and other common items).

Chronic hives — Chronic hives occur daily or almost daily and last longer than six weeks, sometimes for years. Chronic hives can be frustrating because they come and go and can interfere with sleep, work, or school. Hives affect how you look, and people may worry about being near you for fear that you have a contagious infection.

However, it is important to remember that:

- Hives are not contagious
- Chronic hives are rarely permanent; almost 50 percent of people are hives free within one year
- Chronic hives are rarely caused by allergies and are not life-threatening
- The bothersome symptoms of chronic hives are treatable in most people

In most cases of chronic hives, the cause is unknown. Researchers suspect that problems in the immune system play a role.

Hives can be a sign of several other medical or autoimmune conditions, including thyroid or liver diseases, chronic infections, or lupus. Most people with one of these conditions will have other symptoms, apart from the hives.

Physical hives — Hives can be triggered by a variety of physical factors (see "[Physical urticarias](#)"):

- Exposure to cold: The hives often appear as the cold skin warms again. (See "[Cold urticaria](#)".)
- Changes in body temperature or sweating: These hives are often tiny and numerous and appear on reddened skin.
- Vibration: Palms may become red, swollen, and itchy after holding onto the steering wheel of a car while driving.

- **Pressure:** Hives on the palms or the soles of the feet can occur hours after carrying heavy objects or walking long distances. Because the skin on the palms and soles is thick, these areas may appear reddened and swollen without clear hives.
- **Exercise:** Hives that appear during exercise can be a sign of a dangerous condition called exercise-induced anaphylaxis. (See "[Exercise-induced anaphylaxis: Management and prognosis](#)".)
- **Sunlight or water:** This is rare. (See "[Photosensitivity disorders \(photodermatoses\): Clinical manifestations, diagnosis, and treatment](#)".)

Finally, there is a common condition called dermatographism (literally "skin writing"). People with this condition develop reddened, raised lines if the skin is stroked firmly or scratched ([picture 3](#)).

Physical forms of hives tend to be long lasting and are considered a type of chronic hives.

HIVES TESTING — Most people with hives do not need any testing. The diagnosis is usually based on your symptoms and a physical examination. However, tests may be recommended if hives do not resolve within six weeks. (See "[Chronic urticaria: Diagnosis, theories of pathogenesis, and natural history](#)".)

Testing — Skin testing for food and drug sensitivities may be recommended if there are concerns about allergies as a cause of symptoms. This is usually done for people with acute hives; chronic hives are rarely caused by an allergy. (See "[Patient information: Food allergy symptoms and diagnosis](#)".)

Blood tests are sometimes done if hives continue for several weeks. Blood tests can tell if there are signs of underlying diseases, such as liver or thyroid problems or an autoimmune disease.

Skin biopsy — A skin biopsy (when a small sample of skin is removed) may help identify uncommon causes of hives. A skin biopsy may be recommended for people who have chronic hives along with other symptoms, such as persistent fever, painful hives, individual hives that last for days at a time, or hives associated with bruising of the skin. A skin biopsy may also be recommended for people who have other symptoms or abnormal blood tests.

HIVES TREATMENT — (see "[New onset urticaria: Diagnosis and treatment](#)" and "[New onset urticaria: Epidemiology, clinical manifestations, and etiologies](#)" and "[Chronic urticaria: Standard management and patient education](#)").

Avoid triggers — The first treatment for hives is to figure out what is triggering the hives and then avoid that trigger. Even if you cannot figure out the trigger, hives usually disappear over days or weeks.

Antihistamines — Antihistamines are medicines that can relieve itching. Most people with hives respond to antihistamines. You may need a relatively high dose or more than one type of antihistamine to control your symptoms.

There are two main types of antihistamines. They differ in side effects, cost, how long the medicine lasts, and need for a prescription.

- Older antihistamines — Older antihistamines start to work quickly and work well to relieve symptoms. The problem with older antihistamines is that you have to take a dose four to six times per day, and many people have bothersome side effects. These can include drowsiness, dry mouth, double or blurred vision, or difficulty urinating.

Some of these side effects interfere with driving and tasks requiring quick reactions, similar to the effects of drinking alcohol. These medicines are therefore not recommended for people who plan to drive, pilot aircrafts or boats, or operate heavy machinery, or for people whose job performance may be otherwise affected. Starting the medicine at a low dose and gradually increasing the dose can help to ease side effects. The side effects usually get better if you take the medicine regularly over a period of days to weeks.

The older antihistamines include:

Diphenhydramine (Benadryl® and others)

Chlorpheniramine (Chlor-Trimeton® and others) – Chlorpheniramine appears to be safe in pregnant women.

Hydroxyzine (Atarax®, Vistaril®, requires prescription)

Cyproheptadine (Periactin®, requires prescription)

- Newer antihistamines — Newer antihistamines have fewer side effects than older antihistamines. Also, newer antihistamines have to be taken less often, usually once or twice per day. Examples include:

Loratadine (Claritin® and generic)

Cetirizine (Zyrtec® and generic)

Fexofenadine (Allegra® and generic)

Desloratadine (Clarinex®, requires prescription)

Levocetirizine (Xyzal®, requires prescription)

- Other antihistamines — There is another type of antihistamine that is commonly used to treat heartburn. Your doctor or nurse might recommend one of these medicines in combination with another antihistamine, if one medicine alone does not work for you. Examples of this type of antihistamine include:

Ranitidine (Zantac®)

Nizatidine (Axid®)

Famotidine (Pepcid®)

Cimetidine (Tagamet®)

- Doxepin — Doxepin (Sinequan®) can sometimes relieve hives that do not respond to other treatments. However, doxepin causes significant drowsiness and is not recommended when driving or working. Doxepin is sometimes taken at bedtime to help people with severe hives get a better night's sleep.

- **Ketotifen** — Ketotifen is a medicine sometimes used to treat hives. Ketotifen is not available in the United States in pill form, but has been used for many years in Canada, Japan, and Europe.

Oral steroids — A high dose of antihistamines is usually recommended before trying other treatments. However, oral steroids (glucocorticoids), such as prednisone, can help to relieve severe acute hives that do not get better with antihistamines. Once the hives have improved, the steroid dose is gradually lowered and then stopped.

Oral steroids may be used temporarily to relieve chronic hives, but they should not be used for long-term treatment. This is because steroids can have serious side effects when taken for long periods of time (months or years).

Other medicines — If your hives do not get better with the treatments discussed above, other treatments are available. In this case, you should see a specialist (an allergist or a dermatologist).

WHERE TO GET MORE INFORMATION — Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed every four months on our Web site (www.uptodate.com/patients).

Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient Level Information:

[Patient information: Allergy to penicillin and related antibiotics](#)

[Patient information: Bee and insect stings](#)

[Patient information: Fire ants](#)

[Patient information: Anaphylaxis treatment and prevention](#)

[Patient information: Food allergy symptoms and diagnosis](#)

Professional Level Information:

[Allergic and asthmatic reactions to food additives](#)

[An overview of angioedema: Clinical features, diagnosis, and management](#)

[An overview of angioedema: Pathogenesis and causes](#)

[Anaphylaxis: Rapid recognition and treatment](#)

[Approach to dermatologic diagnosis](#)

[Bedbugs](#)

[Chigger bites](#)

[Chronic urticaria: Diagnosis, theories of pathogenesis, and natural history](#)

[Chronic urticaria: Standard management and patient education](#)

[Clinical manifestations of food allergy: An overview](#)

[Diagnostic evaluation of food allergy](#)

[Differential diagnosis of anaphylaxis in children and adults](#)

[Drug eruptions](#)

[Mucocutaneous manifestations of systemic lupus erythematosus](#)

[New onset urticaria: Diagnosis and treatment](#)

[New onset urticaria: Epidemiology, clinical manifestations, and etiologies](#)

Urticarial vasculitis

Physical urticarias

Cold urticaria

Exercise-induced anaphylaxis: Management and prognosis

Photosensitivity disorders (photodermatoses): Clinical manifestations, diagnosis, and treatment

The following organizations also provide reliable health information.

- National Library of Medicine (www.nlm.nih.gov/medlineplus/hives.html)

[1-4]

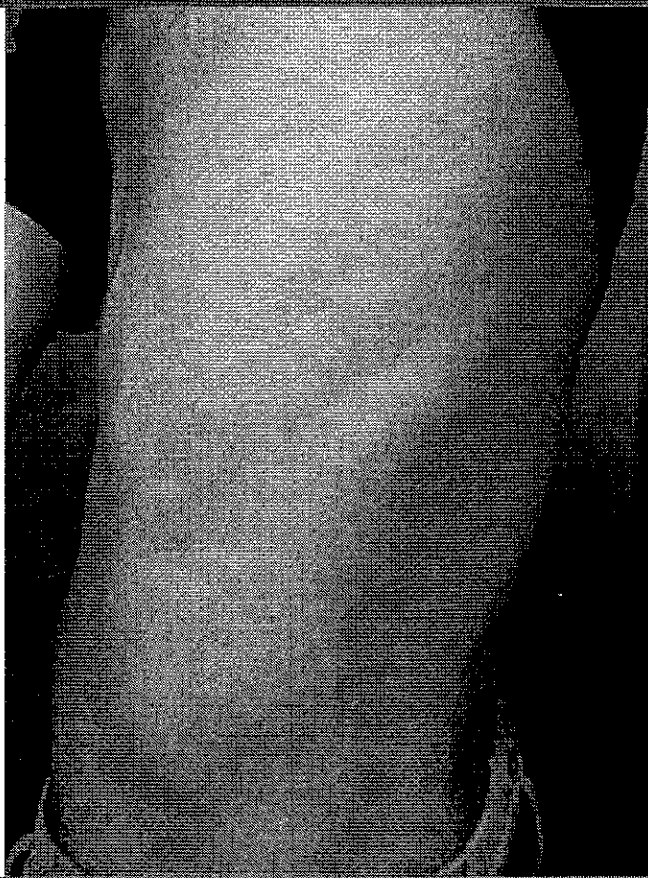
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GRAPHICS

Hives



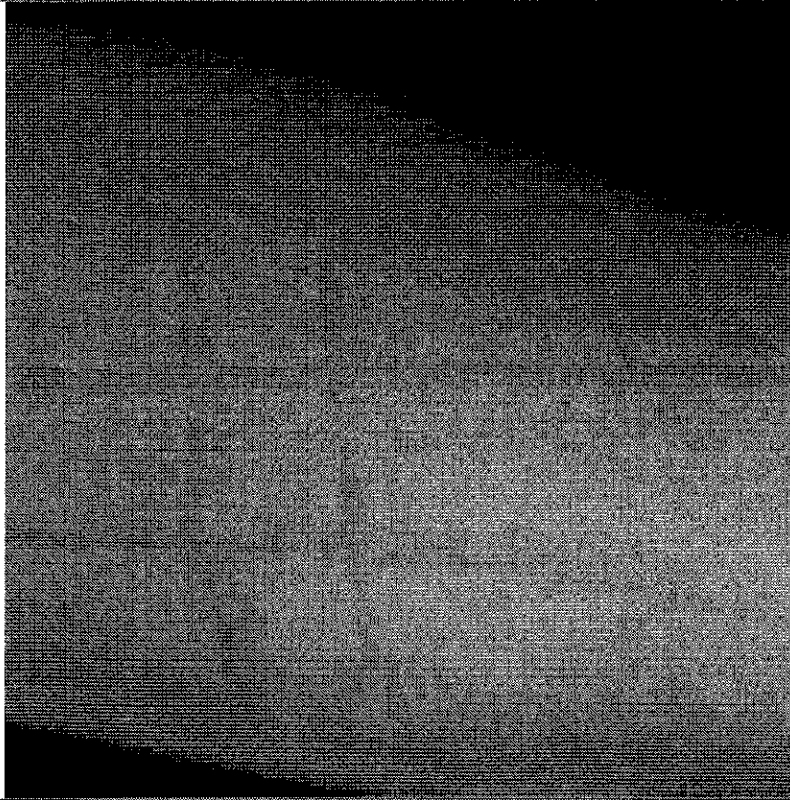
Hives are raised, red patches of skin that are usually very itchy. They usually come and go within a few hours. But they can show up again and again in some people. *Courtesy of Andrew Samel, MD.*

Hives that have merged



Hives are sometimes so widespread that they start to merge together, covering a lot of skin. *Reproduced with permission from: Fleisher GR, MD, Ludwig S, MD, Baskin MN, MD. Atlas of Pediatric Emergency Medicine. Philadelphia: Lippincott Williams & Wilkins, 2004. Copyright © 2004 Lippincott Williams & Wilkins.*

Dermatographism (skin writing), a type of hives



Dermatographism ("skin writing") is a condition in which a person develops red, raised lines after stroking or scratching the skin. *Reproduced with permission from: Fitzpatrick, TB, Johnson, RA, Wolff, K, et al. (Eds). Color Atlas and Synopsis of Clinical Dermatology, 3rd ed, McGraw-Hill, New York, 1997. Copyright © 1997 McGraw Hill.*

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