

Cincinnati Allergy & Asthma Center

Urticaria (Hives)

What are hives?

Hives (also known as urticaria) look like mosquito bites. They range from the size of a pinhead to that of a dinner plate. Although some unlucky individuals can have them every day for weeks, individual lumps usually go in minutes to hours. In most people, hives are not due to allergy.

How common are hives?

Approximately 1 in 6 people will develop hives some time during their life and are most common in children. They eventually disappear in most people. They may reappear following infection, when under stress or for no particular reason.

Hives occur in the skin:

Underneath the lining of the skin, gut, lungs, nose and eyes are mast cells. These are designed to kill worms and parasites. Mast cells are like "land-mines", and contain "bags" filled with irritant chemicals including histamine. When these are released in small amounts, they cause local itch and irritation. In larger amounts, they will cause fluid to leak out of blood vessels, resulting in swelling of the skin. Occasionally, hives may not be itchy at all.

Can hives occur anywhere else?

Swelling of the lips and face is uncomfortable and cosmetically embarrassing, but is not dangerous. Around 1 in 3 people with hives can also have swelling of the tongue and throat. This is called angioedema, and is caused by similar swelling deeper in the tissues. Occasionally the swellings will occur inside the stomach and cause tummy pain or cramps.

Can hives be dangerous?

Hives on the outside don't harm us. They are not damaging inside organs like kidneys, liver or lungs. The only danger is if the tongue swells or the back of the throat swells severely. Since this can cause difficulty breathing, this is a symptom that needs to be taken seriously. Urgent medical treatment is required if this occurs. Hives are rarely due to a nasty underlying disease.

Are hives always itchy?

Usually, but not always! Occasionally, swelling in the deeper layers of skin (known as "angioedema") can even be painful or burning, particularly when it occurs over joints. These sometimes last for *days*.

What causes hives?

Common causes include:

Infection (particularly in young children).

Contact with animals or plants.

Foods or food additives.

Medications such as pain killers (aspirin, NSAIDS (ibuprofen/Advil/), arthritis tablets (naproxen, diclofenac), or antibiotics).

Insect stings.

Stress.

Most people with urticaria do not need tests.....

Tests are sometimes done when hives go on for long periods or when unusual symptoms are occurring around the same time. This is to exclude other diseases, which may appear as hives first and other conditions later. Allergy testing is performed when the history suggests of an allergic cause. Allergy testing is rarely required when episodes of hives are prolonged.

There are circumstances when tests are required to rule out underlying disease or help exclude conditions that can look like hives. Examples include some cases of prolonged hives, when the person is unwell/sick (as hives may make you itchy and tired, but rarely "unwell"), or when there are unusual features like lumps lasting for days at a time or bruising. Under these circumstances, blood tests and sometimes a skin biopsy (tissue sample) may be performed to exclude conditions like urticarial vasculitis.

"Ordinary" hives don't make you sick.....

Hives may make people tired due to lack of sleep, but not "sick". They are not affecting you internally or interfering with essential organs like liver or kidneys. The only danger of "routine" hives is if the tongue or throat swell and cause difficulty breathing, a condition known as angioedema.

Types of Hives:

It may surprise you to learn that there are many *different* types of hives. Whilst most people have their lumps and bumps come up spontaneously without any clear triggers, others find that things that they eat, drink or do can make them appear more often. For example, there is a group of conditions known as the "physical urticarias". These hives come out with various physical stimuli to the skin. Symptoms occur alone or accompany spontaneous hives. While there is rarely an important underlying disease, exceptions occur. For example, solar urticaria has been associated with a rare condition called hyper eosinophilia syndrome, and occasionally SLE/lupus.

Examples of the "physical urticarias" include:

Cold: Cold air, immersion in cold water, cooling of the skin while sweating (uncommon). The major significance of this condition is the risk of severe allergic reaction with whole body cooling such as when swimming in cold water. There is a small risk of drowning if severe dizziness or blackouts occur when swimming alone.

Heat: Contact with hot objects or food (rare)

Aquagenic: Hives occur upon contact with water (rare)

Solar: Hives occur upon exposure to sunlight (rare)

Vibration: e.g. using lawnmower or power tools (rare)

Delayed Pressure: Occurs several hours after leaning on elbow or carrying heavy bags or sitting on a hard seat (uncommon)

Dermographism: Hives occur when the skin is rubbed or scratched, or when irritated by tight clothing (very common, around 1/600 people)

Cholinergic: Red blotchy areas with or without small pimple-sized lumps occur when people sweat e.g. exercise, stress, saunas, after alcohol, spicy food (very common, perhaps up to 5% of adolescents transiently)

Angioedema can occur on its own.....

Angioedema occurs in around 1 in 3 people with hives. It is caused by similar swelling deeper in the tissues. Angioedema is not always itchy and can sometimes be painful. Sometimes it can occur on its own. As well as in infection and allergy, angioedema is also seen in two other situations. Around 1 in 100 people taking heart/blood pressure medicines called ACE (Angiotensin Converting Enzyme) inhibitors will develop angioedema.

The tendency to angioedema can be inherited.....

Hereditary angioedema (HAE) occurs in around 1 in 100,000 people. Patients lack an effective enzyme (known as C1 esterase), which is associated with non-itchy swellings of the face, throat or limbs. Swelling of the gut is a common symptom, resulting at times in severe abdominal pain and sometimes unnecessary surgery.

How long do hives last?

Most hives go away within days to a few weeks. Occasional unlucky individuals will have itches and swellings that come and go over many years. Fortunately, that is the exception rather than the rule!

Treatment of urticaria and angioedema:

- ***Time*** is a wonderful healer. Most resolve within a couple of weeks.
- ***Avoid aggravating factors.*** Non-specific measures such as avoiding excessive heat, spicy foods or alcohol are often useful.
- ***Aspirin/NSAIDS*** should also be avoided as it often makes symptoms worse.
- ***Medication.*** Medicines like antihistamines are often used to reduce the severity of the itch. Severe throat swelling requires early use of medication and attention by your doctor or in hospital. Adrenaline (epinephrine) by injection can be used if there is a significant risk of dangerous throat swelling. Other medicines (like cortisone tablets) may be needed if symptoms are severe.
- ***Special diets.*** Sometimes going on a restricted [elimination diet](#) is needed and will help. Unfortunately, one cannot predict who will or will not respond to diet on the basis of history or allergy testing alone. The only way to sort it out is to put people on a temporary "elimination diet" under close supervision, followed by challenges if it helps.