

Chronic Hives (urticaria)

Hives are raised areas on the skin that are intensely itchy. About 20% of the population will have hives at some point in their life. Chronic hives are common and are defined as hives that are recurrent for more than 4-6 weeks without obvious primary trigger.

Acute hives with a primary trigger. Hives can occur from obvious triggers such food ingestion, insect stings, and contact with known allergen (the lick of a dog or cat, contact with grass pollen, etc.) and start very quickly after exposure to the trigger; they seldom last beyond a day. Physical factors can cause hives such cold, heat, ultraviolet light, scratching or pressure; again these hives are of brief duration. Many drugs can cause hives; the first time you take a drug they start after many days, but a drug that you have taken before can cause hives to come on very rapidly. Once the drug is stopped, the hives usually subside over several days. Viral infections especially in children cause a spell of hives that can last for a number of days.

Chronic hives without a primary trigger. Your doctor can usually rule out a primary trigger with a detailed history. However with chronic hives a number of things can aggravate the hives at times without being the primary cause. These aggravating factors include hot environments, hot showers, pressure areas, scratching, and sometimes exercise. Also up to 25% of people with chronic hives may be aggravated by taking NSAID's (aspirin, ibuprofen, naproxen, etc.).

How do chronic hives manifest themselves? Hives can be quite variable. Typically they are raised red bumps often with a white center or else they are red all over. They can be small (like a mosquito bite) or large (inches in diameter). They can occur on the extremities, trunk, and face. On thicker areas of skin such as the palms, soles, and scalp they present as hard bumps which sometimes can be painful. On soft areas of the skin around the eyes, mouth and on the genitalia they cause more diffuse swelling (angioedema). They often come and go over a period of hours. Scratching with excoriation of the skin will cause them to persist sometimes with scabs for many days. Occasionally they can cause swelling of the tongue and back of the throat or vocal chords. This can affect the airway and can be a medical emergency. Generally if the hives have been occurring for a number of weeks and have not involved the airway it is unlikely that they will start occurring in that location.

What is the natural history of hives? This is quite variable. What is confusing and perplexing to many is that they can start in one location and then erupt in other locations. The reason for this is never apparent. Perhaps the majority of people with chronic hives have a complete remission within a year regardless of the kind of treatment used. Sometimes the hives occur daily and in other cases they occur several times per week or less frequently. If hives occur infrequently then a primary trigger often needs to be investigated more rigorously. Hives that occur infrequently often can follow viral infections.

What is the mechanism of hives? There is good evidence that hives are caused by mast cells in the skin releasing histamine and other substances into the skin. What makes the mast cells act in an irritable state is usually unknown. Some individuals have antibodies directed against the mast cells suggestion that there is an autoimmune disease of the skin. The measurement of this antibody does not help us predict the natural history of the hives or determine the optimal treatment. A low thyroid with auto antibodies directed against the thyroid is seen more frequently in chronic hives. A serious systemic autoimmune disease is seldom seen.

What kind of evaluation is necessary for chronic hives? This depends on the presentation and how long the hives have been present. Some experts and researchers with an interest in hives recommend minimal or no testing! Some simple tests to rule out systemic disease are reasonable if the hives have been present for more than several months. Skin testing for foods or drugs might be considered if the history suggests these triggers. A skin biopsy is sometimes done if the appearance of the hives is unusual or if individual hives persist for more than several days in the absence of excessive scratching. The skin biopsy is seldom useful most of the time.

Treatment of chronic hives: Most chronic hives can be successfully treated. The object of treatment is to improve quality of life and prevent severe outbreaks. Total suppression of any outbreak is often unrealistic. Treatment is not curative by simply suppresses the outbreaks. Treatment strategy is to start with simpler measures that have minimal side effects and then progress to more intensive measures if necessary.

1. **Antihistamines (H1 blockers).** These are often used in higher doses than labeled use on package. They can be used for acute symptoms of chronic prevention.
 - a. **Second generation antihistamines** that are less sedative:
 - i. Loratadine (Claritin) and Desloratadine (Clarinex)
 - ii. Fexofenadine (Allegra)
 - iii. Cetirizine (Zyrtec) and Levocetirizine (Xyzal)
 - b. **First generation antihistamines** that tend to be sedative and might be a help in getting sleep at night. They tend to cause dry mouth.
 - i. Diphenhydramine (Bendaryl)
 - ii. Chlorpheniramine (Chlor-Trimeton)
 - iii. Hydroxyzine (Atarax) requires prescription
 - iv. Cyproheptadine (Periactin) requires prescription
 - v. Doxepin (Sinequan) an antidepressant with strong antihistamine effects that has been used to treat hives for decades. Very sedative.
2. **Add on therapy** to supplement effect of regular antihistamines. Little evidence for their value.
 - a. **H2 blockers.** These are a form of antihistamine that blocks acid in the stomach and may add a slight amount to the regular antihistamine effect
 - i. Ranitidine (Zantac), Famotidine (Pepcid), and others
 - b. **Montelukast (Singulair)** used primarily for asthma
3. **Steroids.** These are usually effective by prolonged use is usually avoided because of side effects. They can be very helpful in treating severe acute attacks. Usually Prednisone is given in doses that start at 40 to 60 mg/day with tapering over a number of days.
4. **Omalizumab (Xolair).** This is a recombinant antibody that is given by injection every 2-4 weeks and is often highly effective if other measures do not control the hives. It is very expensive and requires prior authorization from your insurance carrier.
5. **Other treatments.** These are often immunosuppressive drugs that have significant side effects. Some of these include: Cyclosporine, Colchicine, Dapsone, Hydroxychloroquine (Plaquenil), Sulfasalazine, Cyclophosphamide, and Methotrexate. Immunoglobulin infusions have also been tried.