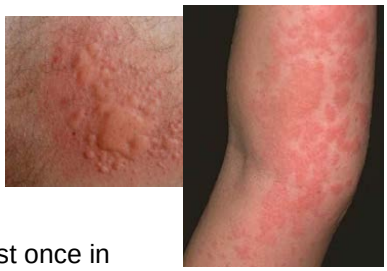
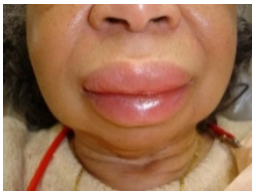
Peak Medical Specialty Centres
Peak Pulmonary Function Laboratories
Local & Toll Free Telephone and Fax:
1-855-738-PEAK (7325)

HIVES (URTICARIA)

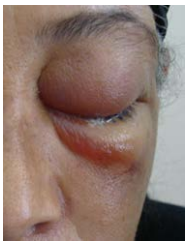


Hives, also known as urticaria, are an outbreak of swollen, pale or red bumps, patches, or welts on the skin that range in size (mm-cm), appear suddenly and are often itchy - either as a result of allergies, or for other reasons. The skin swelling seen in urticaria is due to the release of chemicals such as histamine from mast cells and basophils in the skin, which causes small blood vessels to leak fluid into the surrounding tissues.

Hives are a common occurrence, affecting up to 25% of the population at least once in their lives. They can be short term (acute), lasting only a few days to six weeks or they can be chronic and last for months or years. Chronic hives can be especially frustrating for patients because it is physically uncomfortable, waxes and wanes unpredictably, interferes with work, school, and sleep, and is often difficult to treat. Hives are not contagious, but scratching or rubbing the area often makes it worse.



Urticaria may also be accompanied by **ANGIOEDEMA**, which is swelling in the deep layers of the skin and subcutaneous tissues and manifests in the face (eyelids and lips), extremities, or genitals. Angioedema can be life-threatening if airway obstruction occurs because of laryngeal edema or tongue swelling. Angioedema can also be present without urticaria.



Acute urticaria:

- Infections (including the common cold, urinary tract infections, strep throat, infectious mononucleosis and hepatitis, among others). Viral infections are most common cause (more than 80 percent of all cases of acute hives in children)
- Emotional stress
- Physical stimuli (heat or cold, water, sun, pressure, and exercise) – further classified as Physical urticaria
- Drug effects (especially penicillin and sulfa)
- Insect bites or stings
- Contact (particularly latex)
- Ingested (eg milk, eggs, peanuts/tree nuts, fish/shellfish) or inhaled allergens – these occur very rapidly after exposure
- Blood transfusions

Chronic urticaria:

- Idiopathic (unknown) causes
- Autoimmune disorders

In most patients with symptoms over 6 weeks of urticaria, the cause is unknown (idiopathic urticaria). Because there are no definitive diagnostic tests for urticaria, evaluation largely relies on history and physical examination. In some cases you may need skin tests, blood tests and urine tests done.

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DERMATOGRAPHIA

Dermatographia (the most common 'physical' type of urticaria) is a condition also known as 'skin writing', where the skin cells are overly sensitive to minor injuries such as scratching or applying pressure. The resulting marks on the skin are similar to other forms of urticaria, can itch in the same way and may also be accompanied by a feeling of heat. The reaction may occur within a few minutes of your skin being rubbed or scratched and usually disappear within 30 minutes. Rarely, dermatographia develops more slowly and lasts several hours to several days. The condition itself can last for months or years.

An increased incidence has been reported during pregnancy (especially in the second half), at the onset of menopause and in atopic children. Dermographism can appear in persons of any age but is more common in young adults; the peak incidence is in the second and third decades. No racial variance in prevalence is known. While the condition is not considered serious, it can be incredibly uncomfortable to live with hypersensitive skin. This condition is found in roughly five percent of the population.

Classification of urticarias

Group	Type of urticaria	Occurrence	Localisation	Frequency
Spontaneous urticarias	Spontaneous Acute Urticaria (Acute Urticaria)	**spontaneous**	**generalised**	++++
	Spontaneous Chronic Urticaria (Chronic Urticaria)			+++
Physical urticarias	Pressure urticaria	**Induced** (develops through specific trigger mechanisms)	usually **localised**, i.e. where the external stimulus has taken an effect	+
	Cold urticaria			++
	X-ray urticaria			+
	Solar urticaria			++
	Heat urticaria			+
	Dermographic urticaria			+++
Other urticarias	Aquagenic urticaria			+
	Contact urticaria			++
	Exercise-induced urticaria		**generalised**	+
	Cholinergic urticaria			+++

+ = very rare ,++ = rare, +++ = common, ++++ = very common

TREATMENT

Strategies for the management of acute urticaria include:

- **Avoidance** or removal of triggers that cause or worsen the hives, including the reduction of stress, NSAIDS (e.g Ibuprofen) and alcohol. Heat (hot showers, extreme humidity) is a common trigger and tight clothing or straps can also aggravate symptoms.

- **Antihistamines (H1)** are the drug of choice. In some patients, a relatively high dose or a combination of 2 or more antihistamines may be required. Regular treatment may have to be continued for several months. Sedating antihistamines such as hydroxyzine can be particularly helpful to stop the itch-scratch cycle at night.

  First-generation drugs (shorter acting):

  • Diphenhydramine (Benadryl and others)
  • Chlorpheniramine (Pheneram, Chlor-Trimeton and others)
  • Hydroxyzine (Atarax, Vistaril, requires prescription)

  Second-generation (longer acting; less anticholinergic and sedating effects):

  • Loratadine (Claritin and generic)
  • Cetirizine (Reactine and generic)
  • Fexofenadine (Allegra and generic)
  • Desloratadine (Aerius, Clarinex, requires prescription)

- **Hydration** - scratching because of dry skin can be reduced with the frequent use of emollients (non-cosmetic moisturizers that keep the skin moist and flexible - A-Derma, Aveeno, Cetaphil, Eucerin, Glaxal Base, George's cream, Spectro). Menthol 1% in aqueous cream or calamine lotion may also help to soothe itch, although the residue can cause itching in some patients.

Strategies for the management of more severe, chronic cases of urticaria may include the above, plus:

- **Corticosteroids** - Corticosteroids, such as prednisone, can help to relieve severe acute hives that do not get better with antihistamines. They may be used temporarily to relieve chronic hives, but they should not be used for long-term treatment due to serious side effects if taken for months or years.

- **Omalizumab (Xolair)** - a humanized antibody against immunoglobulin E (IgE), has been successfully used in patients with chronic urticaria (CU) as well as dermatographism. It is administered subcutaneously generally once monthly. Some patients have reported complete symptom resolution within days after the first injection.

- **Montelukast (Singulair)** - Leukotrienes are believed to be involved in the pathogenesis of urticaria. Available evidence suggests that leukotriene modifiers (receptor antagonists) may be useful either as monotherapy or add-on therapy in some patients with CU.

- **Dietary Changes** - For most patients with CU, dietary manipulations are not indicated as IgE-mediated food reactions are not a cause of CU. However, food can cause fluctuations in the symptoms of CU that are noticeable to patients. This is believed to be due to the presence of 'pseudoallergens' and histamine which are substances in food that exacerbate CU. Several weeks of adherence to this diet may be necessary for clinical improvement. For more info visit: http://chronichives.com/useful-information/histamine-restricted-diet/

- **Other Medications –** Doxepin, Ketotifen, Plaquenil and Cyclosporin

For more information visit:

Urticaria Network
http://www.urticaria.org/

American College of Allergy, Asthma & Immunology
http://acaai.org/allergies/types/skin-allergies/hives-urticaria

UpToDate
http://www.uptodate.com/contents/hives-urticaria-beyond-the-basics#H13