

Monday - Friday: 10am - 6:00pm Saturday: 10am - 2:00pm

Sunday: Closed

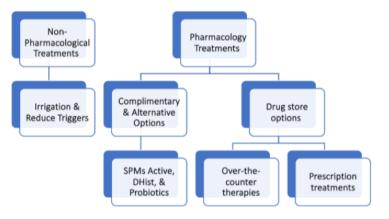
Allergy Solutions

VOL 3 ISSUE 3



Allergies occur when a person is exposed to a particle foreign to their body, and has an adverse reaction that most other individuals do not exhibit, such as allergic rhinitis (hay fever), eczema, asthma, and hives. These foreign particles, or allergens, usually include substances commonly regarded as harmless in reasonable quantities, like dust, pollen, and various foods. Seasonal and hormonal triggers can not only affect the frequency and severity of a person's symptoms, but also how susceptible they are to normally benign allergens. For instance, a patient might become more immunosuppressed—and therefore more allergen-vulnerable—due to an elevated level of cortisol, the primary stress hormone.

An allergic reaction consists of two phases. The early phase, which occurs within minutes and lasts upwards to an hour or two, is characterized by the body's mast cells releasing histamine in response to elevated IgE antibodies, inducing an itching sensation in the nerves, followed by sneezing, irritation, a runny nose, or itchy eyes. The late phase occurs hours after exposure, causing an inflammatory response after the immune response. Note that allergies are different from intolerance or sensitivity, which primarily involves IgG antibodies and much more delayed immune responses.



Aside from avoiding foods and environments containing known allergens, one good way to deal with allergies is sinus irrigation, which cleans out the nasal passages and removes most of the lingering allergens clinging to the respiratory tract. However, if your allergies are

severe or difficult to control, you can use some pharmacological treatments that include supplemental therapies and over the counter treatments.

SPMs are specialized pre-resolving mediators that reduce inflammation, and D-hist is a supplement that contains ascorbic acid, quercetin dihydrate, stinging nettle, bromelain, and NAC. Vitamin C, ascorbic acid, has been known to reduce inflammation & histamine production, while quercetin dihydrate and nettle reduce inflammatory molecules and histamine release. Interestingly, in multiple studies, among the patients who had pollen and seasonal allergies, the patients that were on probiotics containing Lactobacillus acidophilus & Bifidobacterium lactis had fewer symptoms than those not on the probiotic.

Antihistamines work by inhibiting histamine-1 receptors in the skin and the inner linings of the nose, sinuses, and lungs. Some examples include Benadryl, Claritin, Zyrtec, & Allegra. Benadryl is more sedative and is not recommended for patients that are 65 and older, since it increases their risk of tripping and falls and can also lead to some urine retention. Also, flonase is an inhaled glucocorticoid that reduces inflammation and constricts blood vessels to reduce mucus production.

The following are prescription medications. Montelukast is a leukotriene modifier that reduces the production of leukotrienes, inflammatory markers. Hydrocortisone is a corticosteroid that works by calming down the body's immune response to reduce pain, itching and swelling, while cromolyn is a mast cell stabilizer that reduces the release of histamine. This is typically used prophylactically, before exposure to the allergen if it is known, like pet dander, etc. It is drastically less effective if used after exposure, since much of the histamine has already been released.

Author: Savannah Rodriguez, Pharm.D. Candidate 2023 Editor: Eric Kwei, Bachelor of Biology at UC Riverside