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# THE "INFO"-HALER



TAKE IN THE INFORMATION

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An easy to understand, informative newsletter for our patients of all ages from the  
*Allergy & Asthma Associates of Michigan, P.C.*

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## ALLERGIC REACTIONS

All patients with allergies have an "allergic threshold." An "allergic threshold" is simply the particular level of a person's body's resistance to allergic disease. The allergic threshold varies depending on the type and seriousness of various factors at any given time. Some of the factors that may affect the allergic threshold are conditions that may cause an increase in IgE antibody production which in turn causes an increase in histamine release. These conditions are emotions, exposure to chemicals, seasonal variations in airborne allergens, or weather changes. Other factors that may affect the allergic threshold by triggering asthmatic attacks (blocked airways) are infections, exercise, fatigue, exposure to irritants, or ingestion of aspirin containing products or products that cross-react with aspirin. An increase in one or several of these factors may lower a patient's allergic threshold enough to cause an allergic reaction. On the other hand, a decrease in one or more of these factors would raise the allergic threshold and reduce the chances of a reaction.

Many of the factors that alter the allergic threshold are difficult or impossible for the individual patient to control. Allergic target tissues are under the basic control of the body's autonomic nervous system (the system that controls involuntary bodily functions). The autonomic nervous system tends to keep these tissues in their normal state of balance most of the time, but the autonomic nervous system, itself, is involved in other body responses such as emotions. As a result, strong emotions may cause the autonomic nervous system to deliver an emotionally painful message to the allergic target tissues rendering them more likely to react to histamine. Types of reactions that increase the probability of an allergic response are anger, fear, resentment, worry, or lack of self-confidence.

Exposure to chemicals such as sulfites, food dyes, molds, or other select foods may trigger increased IgE antibody production in patients with food allergies.

Seasonal variations in airborne allergens also alters the allergic threshold. In Michigan there are two major seasonal variations: a moderate increase in the spring (tree and grass pollens), and an even stronger increase in the fall (ragweed and weed pollens). The quantity of IgE antibodies in the blood of allergic individuals rises with the onset of these seasons, and lowers during the winter months.

Weather conditions affect the allergic threshold and an individual's IgE production as well. When there is high humidity and rain the mold count is elevated. When conditions are dry and windy the pollen count goes up.

Finally, any stimulus which causes an increase in circulation (like exercise, hot, muggy weather, etc.) may cause an accelerated absorption of the allergy extract and increase the likelihood of a reaction.

There are basically two types of allergic reactions a patient may experience as a result of injection therapy. The first type of reaction is a local reaction. It is characterized by swelling, redness, and itching at the injection site. It generally goes away by itself, but may require a topical application of ice to reduce swelling and an oral antihistamine to help counteract the effects of the histamine released by the mast cells. The size and duration of the swelling should be reported to the office staff as it helps determine the strength of the patient's next allergy injection. Local swelling

that increases in size as the strength of each allergy injection increases indicates that a patient may be at risk for a more serious reaction.

The second type of allergic reaction a patient may experience is a more serious systemic (anaphylactic) reaction. Though the chances of experiencing this type of reaction are very small, it may happen to anyone at any time. The most dangerous anaphylactic reactions occur within fifteen to twenty minutes after an allergy injection and require immediate medical treatment. It is for that reason that all patients are required to remain in the waiting room for a minimum of twenty minutes following each allergy injection. Symptoms of an anaphylactic reaction include a generalized feeling of warmth, itching of the palms, soles, eyes, or skin, nasal stuffiness, sneezing, difficulty breathing, hoarseness, difficulty swallowing, redness of the face, swelling of the face, tongue, hands, or other body parts, tightness in the throat or chest, and hives. If a patient experiences any of these symptoms after receiving an allergy injection, they should notify the office staff immediately. Immediate, emergent medical treatment results in a complete recovery without subsequent problems. As a rule, a patient should never leave the waiting room area after an allergy injection if they do not feel just right!

In general, allergy injections are a very safe and successful method for controlling allergy symptoms. If taken as directed under the guidance and close supervision of a physician, they are very therapeutic. Patients can actively assist in the success of their programs by communicating all allergy injection problems to the office staff, receiving allergy injections on time, and doing their best to control environmental factors that may alter their body's allergic threshold.

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