

**AMIT PATEL M.D HEENA SHAH M.D.**

**ALLERGY, ASTHMA, AND CLINICAL IMMUNOLOGY**

### **Allergen Immunotherapy (Allergy Shots)**

#### **BACKGROUND INFORMATION FOR PATIENTS:**

Allergen (or Venom) immunotherapy injections or "allergy shots" are prescribed for patients with allergic rhinitis (hay fever), allergic asthma or life-threatening reactions to insect stings. Immunotherapy is the **ONLY** medical treatment that could potentially modify allergic disease. Some studies have shown that it may have a **PREVENTATIVE** role in allergic children, possibly preventing asthma from developing in some patients with allergic rhinitis. Immunotherapy would be considered for individuals, who have moderate or severe symptoms not adequately controlled by environmental control measures and/or medications who demonstrate positive skin testing.

#### **Effectiveness**

Allergen immunotherapy (allergy shots) may "turn down" allergic reactions to common allergens including pollens, molds, animal dander and dust mites. In most cases, the initial 6 to 12 month course of allergy shots is likely to gradually decrease sensitivity to airborne allergens and continuation of injections leads to further improvement. A small percentage of patients respond as late as 18-24 months into therapy. The injections do not cure patients but diminish sensitivities, resulting in fewer symptoms and use of fewer medications. It is important to maintain shots at the proper time interval; missing your shots for a short time may be acceptable but an appropriate adjustment in the dose of vaccine may be necessary for long lapses in injections. Please see us if you miss receiving your injections for longer than what is recommended for your current vial.

#### **How long are shots given?**

There are generally two phases to immunotherapy: a build-up phase and a maintenance phase

- **Build-up phase:** involves receiving injections with increasing amounts of the allergens. The frequency of injections during this phase generally ranges from 1 to 2 times a week, though more rapid build-up schedules are sometimes used. The duration of this phase depends on the frequency of the injections but generally ranges from 3 to 6 months (at a frequency of 2 times and 1 time a week, respectively).
- **Maintenance phase:** This phase begins when the effective therapeutic dose is reached. The effective therapeutic dose is based on recommendations from a national collaborative committee called the **Joint Task Force for Practice Parameters: Allergen Immunotherapy: A Practice Parameter** and was determined after review of a number of published studies on immunotherapy. The effective maintenance dose may be individualized for a particular person based on their degree of sensitivity (how 'allergic they are' to the allergens in their vaccine) and their response to the immunotherapy build-up phase. Once the target maintenance dose is reached, the intervals between

the allergy injections can be increased. The intervals between maintenance immunotherapy injections generally ranges from every 2 to every 4 weeks but should be individualized to provide the best combination of effectiveness and safety for each person. Shorter intervals between allergy injections may lead to fewer reactions and greater benefit in some people and some individuals may tolerate intervals longer than four weeks between injections.

## **Reactions to allergy injections**

It is possible to have an allergic reaction to the allergy injection itself. Reactions can be local (swelling at the injection site) or systemic (affecting the rest of the body). Systemic reactions include hay fever type symptoms, hives, flushing, lightheadedness, and/or asthma, and rarely, life threatening reactions. Some conditions can make allergic reactions to the injections more likely: heavy natural exposure to pollen during a pollen season and exercise after an injection. Serious systemic reactions can occur in patients with asthma that has worsened and is not well controlled on recommended medications. Therefore, if you have noted worsening of your asthma symptoms, notify your nurse or physician before receiving your scheduled injections! Reactions to injections can occur, however, even in the absence of these conditions.

**Please inform the nursing staff if you have been diagnosed with a new medical condition or prescribed any new medications since your last visit. If any symptoms occur immediately or within hours of your injection, please inform the nurse before you receive your next injection.**