

## **Allergy Testing for the General Practitioner**

Nicole A. Heinrich DVM DACVD

McKeever Dermatology Clinics

[www.mckeevervetderm.com](http://www.mckeevervetderm.com) 952-946-0035

Hyposensitization (allergen specific immunotherapy) is a nice treatment option for many dogs, cats and horses with allergies. It offers many advantages. It is safe for long term use, it does not suppress the immune system, it is not a drug and it is effective for many patients.

Hyposensitization is available as an injection (allergy shots) or as sublingual immunotherapy (allergy drops). In general, the more accurately an individual's specific allergies have been identified, the more successful the hyposensitization will be.

Hyposensitization is not effective for every individual, and it takes several months to take effect. Hyposensitization should be administered for at least one year (or even up to 18 months according to some dermatologists) to determine maximum effectiveness. Many patients start to respond to allergy shots within the first 6 months of treatment.

Allergy testing can be accomplished through intradermal allergy testing and through serum IgE testing. In general, intradermal allergy testing is the most effective way to determine an individual's allergies. It is both sensitive and specific. It is a reliable way to determine what the significant allergens are for an individual, because an immune response is observed in the skin. Serum testing indicates exposure (and some level of immune response) to an allergen, which may or may not be significant. Sensitivity and specificity of serum allergy testing is variable.

Intradermal allergy testing is best, and generally more accurately identifies an individual's allergy profile. However, not every patient has access to a dermatologist. For these situations, a serum allergy test should be considered.

The following advice assumes that the practitioner has ruled out mites (*Demodex*, *Sarcoptic* and *Cheyletiella* sp.) with skin scrapings, pinna pedal response and/or treatment trials. It also assumes that a food allergy has been treated or ruled out. An additional assumption is that the practitioner is monitoring the patient for secondary yeast and bacterial skin, ear and paw infections using surface cytology.

### **Allergy testing basics**

- Food allergies or sensitivities cannot be detected with an intradermal, serum, hair or saliva test, no matter what the laboratory says.
- Allergy test results must correlate with what season(s) of the year the individual has allergy symptoms. For example: if a dog has year round

allergies, but the allergy test only reveals oak tree and ragweed pollen allergies, then you know that the complete allergy profile has not yet been identified. Oak trees pollinate in the spring (April and May) and ragweed pollinates in the fall (August until light snow fall). We know that there must be allergens in the summer and winter that still need to be identified for the atopic dog in this example.

- *Allergy testing should be repeated in a different season if a complete allergy profile is not obtained with the first test.*
- Most individuals are allergic to multiple allergens. The average number varies by region. In the Midwest, the average atopic dog is allergic to between 5 and 10 different allergens.
- There is no minimum age requirement for allergy testing; however, affected dogs and cats (especially those with symptoms that occur prior to one year of age) are encouraged to try a hydrolyzed protein diet as part of their allergy diagnostic plan.

Once an allergy test has been performed, and a satisfactory allergy profile has been obtained, then allergen specific immunotherapy is prescribed.

### **Allergy shots basics**

- Allergy shots start at a low concentration and build to a maximum concentration over the course of 1 to 2 months.
- *Allergy shots are not supposed make an individual itchy or develop hives.* If the allergy shot causes an individual to become itchy or to develop hives, then the dose should be reduced by 50%. If the individual tolerates the decreased dose on 2 occasions, then the dose should be increased by 20%. For example: if a dog becomes itchy when administered 1cc of immunotherapy, then decrease the dose to 0.5cc. If 0.5cc is tolerated 2 times, then increase the dose to 0.7cc. If the individual tolerates 0.7cc, then this is the maintenance dose. If the individual becomes itchy or develops hives with 0.7cc, then return to 0.5cc and this is the maintenance dose.
- Allergy shots are administered every 1 to 3 weeks. The initial frequency may vary based on the protocol that is being used. The frequency should be adjusted based on the patient's response. For example: if a dog is being given allergy shots every 3 weeks, and the itching is well controlled for the first 2 weeks, but not the 3<sup>rd</sup> week, then the frequency should be increased. The dog in this example should have allergy shots administered every 2 weeks.
- Allergy shots can be administered concurrently with any medication. There is no need to avoid steroids or other medications that control itching while waiting for the allergy shots to take effect.

Hyposensitization protocols vary based on region and based on dermatologist. Often dermatologists will customize immunotherapy as new data becomes available and based on observations of their patient population.

Call or email us if you have questions!