

# DIRECTIONS FOR THE USE OF THERAPEUTIC ALLERGENIC EXTRACTS

## Diagnosis

The diagnosis of allergy consists of a thorough examination, correlated with a carefully taken history, and evaluation of appropriate differential diagnoses. The definitive diagnosis is supported by *in vitro* (ELISA) tests for allergen-specific IgE or *in vivo* tests (intradermal skin tests), the results of which are used in the formulation of immunotherapy. In immediate type hypersensitivity, the skin is most frequently the target tissue. Occasionally, the patient may show respiratory signs. When allergy occurs, the clinical manifestations are that of atopic dermatitis (local or generalized), urticaria, otitis, blepharitis and rarely asthma.

## Therapy

ALLERCEPT® Allergy Treatment Sets are indicated as an aid in alleviating symptoms associated with allergic disease in the dog, cat and horse. Other factors in the management of the allergic animal include environmental control and elimination of the offending allergens when possible.

## Therapeutic Considerations

Only those allergens to which the animal has shown reactivity, using *in vitro* or *in vivo* tests, should be included in the immunotherapy treatment set because of the potential for *de novo* sensitization. Test results should always be evaluated with attention to clinical signs, history and differential diagnoses.

## Sources of Allergens

Allergenic extracts are water soluble allergens derived from natural substances that have been aseptically filtered and preserved with phenol.

### Pollen Allergens

Pollens are shed naturally from wind-pollinating plants. Common seasonal peaks are: spring—tree pollen; late spring through early summer—grass pollens; late summer through fall—weed pollens (ragweeds).

### Mold Allergens

Fungi (molds) are ubiquitous in the environment. Some genera, such as *Alternaria* and *Cladosporium*, may have seasonal peaks. Fungi are also found indoors growing on a host of substances and may cause perennial symptoms.

### Dust Mite Allergens

Dust mites are a very important perennial source of allergen. They are found in bedding, carpeting and upholstery.

## Suggested Dosage Schedules for Immunotherapy

Successful immunotherapy is accomplished by subcutaneous injection of therapeutic allergens in increasing dosages until the maximum tolerated dose is determined. This level is suggested by increased pruritus, which may last for several hours after injection. Once this level is achieved, the patient should be kept on a maintenance dosage schedule. Thus, the dosage of immunotherapy and injection interval must be established during the course of therapy for each animal.

The schedule is provided as a general guide. For each animal, dosage should be individualized based upon the sensitivity to the allergens injected and continually monitored by the response to immunotherapy. **A schedule of treatment must be determined by a veterinarian for each animal.**

Immunotherapy is administered by subcutaneous injection. It is important to avoid injecting into a blood vessel. Insert the needle subcutaneously, then pull back gently on the syringe plunger prior to injection and note if blood enters the syringe. If blood is observed, the needle should be repositioned and checked again for blood before injecting.

If history or response to treatment indicate a patient is extremely sensitive, a more dilute solution may be used initially with gradually increasing doses similar to the suggested dosage schedule. It is recommended that dosages less concentrated than the purchased strengths be made by appropriate 1:10 dilutions with sterile diluent for allergenic extract.

This vial now becomes the initial treatment vial. For this vial, follow the dosage below for vial number one then repeat for the second vial before moving to a maintenance series.

## Suggested Dosage Schedules

### Vial #1 INITIAL SERIES

Injection Number	Days Between Injections	Dosage (ml)
1	–	0.1
2	4 days	0.2
3	4 days	0.4
4	4 days	0.8
5	4 days	1.0

After the initial series, begin the maintenance series outlined on the next page. Small dogs (i.e., those weighing less than 10 lbs.) and cats regardless of weight, may be at greater risk to experience serious reactions at higher dosages. Proceed with caution in these cases.

## Vial #2 MAINTENANCE SERIES\*

Injection Number	Days Between Injections	Dosage (ml)
6	4 days	0.2
7	4 days	0.4
8	4 days	0.6
9	4 days	0.8
10	4 days	1.0
11	7 days	1.0
12	7 to 21 days	1.0
12+	7 to 28 days	1.0

Order refill vials 30 days before needed.

\* The dose and interval between allergy treatment injections in pets with atopic dermatitis should be tailored according to the animal's response.

## Refill Vials

Over time the potency of the allergens in a treatment set decreases. When you receive a new refill vial, it is at full potency. To allow your pet to adjust to the new vial, give your pet one half of its maintenance volume for the first injection from the refill vial. Resume full maintenance volume on subsequent injections if no untoward reactions are seen.

## Local Reactions

It is not unusual for the animal to experience temporary discomfort at the time of the injection with some soreness occurring later. A small area of swelling may occur at the site of injection. These reactions may be decreased by massaging the injection site(s) thoroughly following injection, decreasing the dosage, or administering the dosage at two or more sites.

## Systemic Reactions

Adverse reactions are rarely seen and usually consist of an increase in pruritus. However, animals should always be observed for at least 30 minutes after injection. A patient experiencing a more serious systemic reaction may exhibit hives, angioedema (swelling around the face and head), restlessness, vomiting or diarrhea, and in severe anaphylaxis, circulatory collapse and pulmonary edema. If this type of reaction occurs, **immediate veterinary attention is required.**

In the event of a severe systemic reaction, administering epinephrine 1:10,000; a fast-acting, water-soluble corticosteroid injection such as hydrocortisone, prednisolone or dexamethasone in a sodium phosphate or sodium succinate base; and an injectable antihistamine such as diphenhydramine, may be necessary.

Subsequent therapeutic doses should be reduced to the dose that did not elicit a reaction or in case of a serious anaphylactic reaction to a 10-fold dilution. Subsequent doses should be increased more slowly, (i.e., use of intermediate dilutions or

repetitions of the same dose). If, after reduction of dosage, reactions continue to occur, corticosteroids may be given simultaneously.

## Precautions

1. Store Allergenic Extracts between 35° and 45° F (2°– 8° C).
2. Always use a new sterile syringe and needle for each injection.
3. Do not inject intravenously. Pull back gently on syringe plunger and note if blood enters the syringe. If blood is obtained, the positioning of the needle should be changed before injecting.
4. Observe the animal for signs of a systemic reaction for at least 30 minutes following administration of the immunotherapy injection.

**CAUTION:** Due to reduced potency over time, it is recommended that the first injection from a refill vial be administered at one half of the previous maintenance dose.

**Warning:** As with any injectable, take precautions to prevent self-administration. Allergic people should be especially cautious as these are soluble allergens and can cause allergic reactions when injected. Should human injection occur, consult your physician immediately.

## Clinical Response

Studies suggest that 60–80% of atopic dogs and cats will benefit from this form of therapy.<sup>1-3</sup> In general, atopic animals require lifetime administration. If the patient has not improved after 6 to 12 months of maintenance injections, treatment should be re-evaluated. For a professional veterinary consultation, call 1-800-GO HESKA (800-464-3752), option 5.

## References

1. Allergic Skin Diseases of Dogs and Cats. Reedy LM, Miller WH Jr. and Willemse T; W.B. Saunders Company, Philadelphia, 1998.
2. Current Veterinary Dermatology. Griffin CE, Kwochka KW, and MacDonald JM; Mosby Year Book, St. Louis, 1993.
3. Small Animal Dermatology. Scott DW, Miller WH Jr. and Griffin CE; Saunders Company, Philadelphia, 2001.

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