

McKeever Dermatology Clinics, Inc.

ALLERGY, EAR AND SKIN SPECIALIST

Why We Allergy Test and Give Allergy Injections

Allergies are quite common in animals. The term used in veterinary medicine for the disease condition caused by allergies to inhaled substances is atopy.

The inhaled substances which cause the allergic reactions are called "allergens", and they may be pollens, lint, animal fibers, house dust, or molds.

Animals with atopy often show symptoms such as scratching, licking their paws, and rubbing their face.

The only precise way of diagnosing atopy is the intradermal skin test. The dog or cat is clipped on one side of the chest, and very small amounts of common allergens are injected into the skin. This is slightly uncomfortable and may require a mild tranquilizer to insure the animal's cooperation, but most pets tolerate the procedure quite well.

If a pet is diagnosed as having atopy, there are three methods of therapy. The first is to remove the offending allergen from the animal's environment. Unfortunately, this is not possible in most instances.

The second means of therapy is hyposensitization which is commonly referred to as "allergy shots." These are a series of injections of diluted allergens that are given to hopefully render the pet less sensitive to its allergies (this method is successful in approximately 80% of dogs; the other 20%, however, fail to improve). Owners can usually be taught to give the injections at home.

The third and final type of therapy involves the use of anti-itch drugs. Antihistamines may not be effective in all animals. Some pets will respond, however, and thus a short trial period of antihistamines may be tried. The most frequent anti-itch medications used in veterinary medicine are steroids (cortisone) and related drugs. In order to minimize potential side effects, animals are usually placed on the lowest dose every other day of oral methylprednisolone (a cortisone-like drug) that is effective in controlling their symptoms.

Administering Hyposensitization Injections

The initial thought of giving allergy injections to a pet makes many people uneasy, and while it may take you a few times before you are completely comfortable with the procedure, it is really a very easy and painless task.

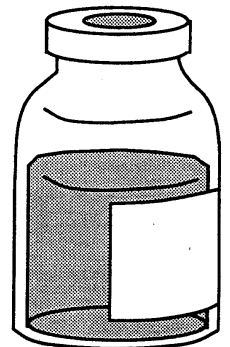
These instructions are intended as a reference in case you forget any of the details. Please contact your veterinarian if you have any questions that are not answered here.

Allergen

The injection solution, called "allergy extract" or "allergen" is initially provided to you in three vials. These vials are labeled Vial 1, Vial 2, and Vial 3.

Vial 3, which contains a dark, concentrated fluid, is the strongest. Vials 1 and 2 are simply weaker dilutions. These vials contain extracts of the substances to which your pet is allergic. You will be injecting tiny amounts of the weakest dilution (Vial 1) at first, and slowly increasing the amount and concentration until your pet can tolerate a larger amount of the strongest dilution (Vial 3).

The vials of allergen must be stored in the refrigerator.



Allergy Injections – 2

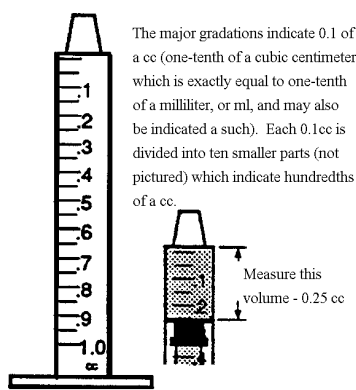
Syringes

The syringes you will receive are disposable and are for a single use only. After injecting your pet, place the needle guard over the needle. Carefully save the used syringes and needles in a puncture proof container and return them to your veterinarian for safe disposal.

IMPORTANT: Make sure that children cannot get hold of syringes and needles. They can be dangerous and are not toys.

The syringes hold a maximum of 1.0 cc (a measure of volume measuring cubic centimeters). They are marked in increments of 0.1 cc along the side of the barrel (see diagram).

The correct volume is measured from the end of the syringe to the tip of the black plunger. In the diagram, a volume of 0.25 cc is being measured.



Injection Schedule

The injection schedule (on page 4) will indicate which vial to use, how much to give, and when to give it. Injections are given every 2 days until day 28. Then they are given every 10 to 20 days, depending on your pet's response.

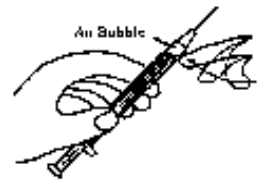
Start with Vial 1. The amount to give for the first injection is shown as 0.1 cc – just a small amount in the tip of the syringe. The amount increases with each injection until you reach a maximum of 1.0 cc of Vial 1 (nearly a whole syringe full). Then, you will switch to Vial 2 and start again with a volume of 0.1 cc and gradually build up to 1.0 cc. Then, you switch to Vial 3, and again you start with 0.1 cc and increase the volume to a maximum of 1.0 cc. When you reach this point, you are at the maximum dose, and all the injections you give after that will be the same – 1.0 cc from Vial 3. Only the interval between injections will change.

Refills

The initial set of three vials will last approximately four and a half months. The following refills will last seven and a half months. Please call (952) 946-0035 to order a refill. Please allow 1-2 weeks for us to fill your order.

Filling the Syringe with Allergen

1. Remove plastic outer packaging material from the syringe.
2. **PUSH AND TWIST** the needle firmly into the syringe to tighten it.
3. **PULL** the plastic needle guard **STRAIGHT OFF** the needle. **DO NOT TWIST**, or the needle will come off too.
4. Insert the needle through the center of the rubber stopper of the correct vial.
5. Turn syringe and vial upside down.
6. Pull back on the plunger to draw allergen into the syringe. Draw in a little more allergen than you actually need.
7. **INSPECT FOR AIR BUBBLES** which are usually there. Holding the syringe with the needle pointing up, **TAP** the syringe with your finger to get the bubbles to float to the tip of the syringe. (NOTE: it **WILL NOT** harm your pet if you accidentally inject some air bubbles into the skin, but the bubbles will interfere with accurate measurement.)
8. With the needle pointing up and into the vial. Push on the plunger to expel the air bubbles back into the vial. **STOP** pushing when the plunger is set at the desired volume.
9. Pull the needle out of the vial.



Giving the Injection

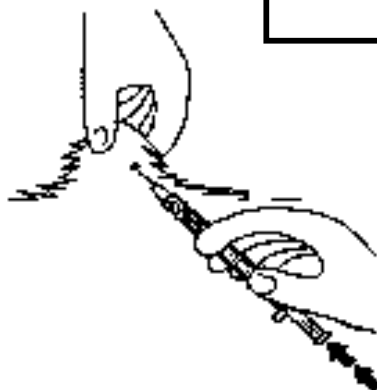
Preparation

1. Before proceeding further, place vials where they cannot fall and break!
 2. The allergen is given by subcutaneous injection according to the treatment schedule. Once you have learned how to give the injections, you will most likely administer them at home.
 3. A new needle and syringe should be used for each injection. Carefully save the used syringes and needles and return them to your veterinarian for safe disposal.
 4. Throughout the duration of treatment, the injection should be given when the animal can be observed for approximately 60 minutes. The injection should be given when you can take your pet to your veterinarian or veterinary emergency clinic if necessary.
 5. If increased itching, swelling, or redness at the injection site is noted, please call our office. If your animal appears to become seriously ill after an injection, you should contact your local or emergency veterinarian immediately.
5. When the needle is within the skin, push in the plunger to inject all of the allergen.
 6. Withdraw the needle and dispose of the syringe. **REMEMBER** to keep all needles and syringes out of reach of children!
 7. To make the procedure a pleasant experience, reward your pet with a favorite treat immediately after the injection, and praise him/her lavishly. Most pets will actually learn to look forward to their injection because they look forward to the praise and the treat.
 8. **Return the allergen to the refrigerator.**

Note: Many pet owners ask whether it is necessary to sterilize the area by swabbing it with alcohol before giving an injection. On your dog or cat, this is not effective due to the thick hair coat and the type of bacteria on the animal's skin. In fact, swabbing the area with an antiseptic may actually cause the injection to sting.

Injection

1. Hold the syringe in your right hand as if it were a dart (and of course, feel free to switch hands on each of these procedures if you are left-handed).
2. Ask someone who knows your pet well to hold your pet. It is not necessary to restrain your pet unduly; you only want him/her to hold still for a short period of time.
3. Pull the skin of the back of the neck up firmly with your left hand to create a "tent".
4. Gently push the needle through the animal's skin – as far as it will go. The needles are very sharp and thin, and so this is easy and painless. However, take care to push the needle through one layer of skin and **NOT INTO** the animal's underlying muscle, or into the skin and out the other side, or even into your own finger.



Warning:

If there is the potential of your pet biting you or someone else during this procedure, have your referring veterinarian perform the injections.

Allergy Injections – 4

Treatment Schedule

Vial 1			Vial 2			Vial 3					
(100-200 PNU/ml)			(1,000-2,000 PNU/ml)			(10,000-20,000 PNU/ml)					
Day	Date	Amount	Day	Date	Amount	Day	Date	Amount	Day	Date	Amount
0		0.1cc	10		0.1cc	20		0.1cc	48		1.0cc
2		0.2cc	12		0.2cc	22		0.2cc	68		1.0cc
4		0.4cc	14		0.4cc	24		0.4cc	*88*		1.0cc
6		0.8cc	16		0.8cc	26		0.8cc	108		1.0cc
8		1.0cc	18		1.0cc	28		1.0cc	128		1.0cc
						38		1.0cc	148		1.0cc

** Please call to order a refill of vial 3 and schedule a recheck appointment within the next 3 weeks.

KEEP A RECORD OF ANY REACTIONS (SWELLING, REDNESS, ITCHINESS) THAT SHOULD OCCUR. CALL A VETERINARIAN IMMEDIATELY IF YOU SUSPECT THAT YOUR PET HAS ANAPHYLAXIS (SEE BELOW).

Possible Side Effects of Hyposensitization

Extremely Rare: Anaphylaxis

Characterized by:

1. Profuse vomiting and diarrhea
2. Wheezing
3. Generalized hives and itching
4. Swelling of face and legs

This is an emergency and your pet should be taken IMMEDIATELY to a veterinarian for treatment with epinephrine and corticosteroids. These severe reactions are rare but can be life threatening if they occur.

More Common:

1. Increased itching
2. Hives after injection
3. Itching at site of injection

These signs can often be abolished by pre-medicating with antihistamines and corticosteroids prior to giving the injections.

Please note:

After you give the injection, you will need to be home to watch your pet for one hour. If any of the above reactions occur, consult your veterinarian.

Results from Therapy

As much as we would like to see immediate results, do not expect to see any significant improvement for 4 to 8 months.

Nevertheless, if your pet is itchy before then, consult your veterinarian. The schedule of injections can often be adjusted to fit your pet's specific needs as we see how he/she responds.

Remember...

Since the allergens are custom formulated to meet your pet's specific needs, on day 88 of the treatment schedule fax or call McKeever Dermatology Clinics. This will give us time to fill your prescription without a lapse in your pet's treatment

