

HOW TO TREAT ALLERGY IN 10 EASY STEPS

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1. Selective breeding.

Allergy is a genetically influenced disease caused by changes in the genes that control T lymphocyte function. Allergic dogs have T lymphocytes that respond more vigorously than normal individuals. This causes the symptoms of allergy that are so common.

Consider not breeding allergic pets. If you are selecting a mate for an allergic pet, consider finding one that has no history of allergies. This may help reduce the chances of allergy in puppies.

2. Start early.

The earlier a patient with allergy is started on a treatment program designed with aggressive avoidance practices, the easier the disease will be to control. Patients that have chronic disease or recurrent infections have immune system changes as well as functional alteration in normal skin function which can make it more difficult to treat the dermatitis. By starting therapy early, cheaper, more simple therapies will likely work well to improve the patient's disease. "An ounce of prevention is worth a pound of cure".

3. Treat all secondary bacterial and yeast infections.

Allergic disease causes changes in the normal function of the skin that prevents it from preventing infections. As a result, up to 80% of allergic patients will have secondary infections. These infections can mimic other diseases making accurate diagnosis difficult. Additionally, the infections can cause severe itching and add to the inflammation of the allergic reaction.

Antibiotics for at least 21 days will be needed for each episode of bacterial folliculitis (pyoderma).

Yeast infections will require topical and/or systemic antifungal medications for at least 1 month.

Ear infections usually require ear cleaning every 3-7 days and a topical medication to kill the bacterial or yeast. Often a topical steroid is used to decrease the inflammation caused by the allergy and infection.

Infections of the feet (pododermatitis) are often treated with topical antimicrobial wipes, shampoos, or rinses used frequently.

4. Avoid common allergens.

The most common allergens in the home environment are house dust mites, molds, and cigarette smoke. These as well as other allergens (wool, etc) can often be reduced or avoided with several easy techniques.

Throw away any foam or stuffed dog bed that is older than 1 year. Dog beds are one of the most common sources of house dust mites.

Wash all bedding every 7 days using hot water.

Do not allow anyone to smoke in the home.

Use a HEPA air filter to clean the air.

Dehumidify the home using a high efficiency dehumidifier to keep the humidity below 40%. This will help prevent house dust mites, mold growth, and fleas.

Consider using a spray to dissolve or denature the allergens (Allerose spray) and borate product to eliminate housedust mite exposure in the home.

5. Bathe your pet every 3-7 days using a mild antimicrobial shampoo.

This will wash off any allergens and help to kill and prevent the secondary infections caused by bacteria or yeast.

6. Use flea control every month.

Fleas are very common in the South and can increase the allergic reaction to all other allergens including house dust mites, pollens, molds, etc.

7. Consider changing the diet to a skin friendly food or even an aggressive food allergy trial.

Feeding a diet without beef or dairy ingredients but with high levels of essential fatty acids will help reduce any allergic reactions regardless of the cause.

If food allergy is suspected, feeding a diet with only 1 protein (rabbit, duck, kangaroo, or fish) and 1 carbohydrate (potato) for 10 weeks will help diagnosis any food allergy. During this time, NO other foods, treats, chew bones, or chewable medication can be administered.

8. Use symptomatic and topical therapy to help reduce the allergy and itch.

Antihistamines are cheap effective therapies with few side effects (clemastine, diphenhydramine, chlorpheniramine, hydroxyzine, amitriptyline).

Treat with high dose essential fatty acids (if not already in the diet).

Anti-Itch conditioners after each bath (oatmeal, pramoxine, hydrocortisone, etc).

Use Genesis spray (triamcinolone) to provide effective topical steroid therapy.

Consider low dose (every-other-day) steroids to put out the "pruritic" fires.

9. Allergy testing

Allergy skin testing or blood allergy testing can be used to identify to which allergens the patient is reacting. This information can then be used to formulate an allergy vaccine to try to desensitize the immune system to those reactive allergens. This therapy has few side effects and helps improve approximately 75% of allergic patients.

10. Cyclosporine Therapy (Atopica, Novartis)

Cyclosporine is an effective treatment that stops the T lymphocytes from stimulating the allergic reaction. It is effective in 75% of patients and has few adverse effects but is very expensive. The treatments are started every day but can usually be reduced to an every-other-day schedule, thus reducing the cost. In some patients, other medications (ketoconazole) can be added that will help further reduce the cost of the cyclosporine therapy.

CYCLOSPORINE THERAPY TIPS

Author's Suggested Protocol:

Eliminate fleas, scabies, pyoderma, yeast dermatitis, otitis.

Cyclosporine is miraculous but it doesn't kill fleas or bacteria...

In young dogs, try a food trial and consider Allergy testing.

Screen for tumors and check viral status in cats.

Above all else Do No Harm...

Bath every 3-7 days.

It helps remove allergens and organisms plus clean pets are more pleasant :)

Begin prednisone for 1-3 weeks.

This may help hit the immune reset button providing better response.

Begin cyclosporine after a meal for 14 days then discontinue the food before treatment to maximize absorption.

If GI symptoms develop, divide dose into bid and give after a full meal.

Administer cyclosporine daily for 6-8 weeks to determine efficacy; then attempt to taper the dose to every other day.

Some dogs will require daily therapy but most can be tapered.

Response Rates:

Cyclosporine therapy works better than antihistamines, topical antipruritics, and works as well as steroids and immunotherapy (allergy vaccines).

If the patient is responding by the 4 week point they will likely do well and have a 75% chance of being tapered to an alternative day dose.

Improving Efficacy:

Eliminate all secondary infections (pyoderma, yeast dermatitis, otitis) before beginning cyclosporine therapy.

Not all cyclosporine is the same. Use Atopica[®] first to verify its efficacy; only then consider generics.

Ideally give Atopica[®] 1 hour before or after a meal to maximize absorption (this may increase GI symptoms).

For severely pruritic dogs, consider administering antiinflammatory doses of prednisone with cyclosporine for the first 1-3 weeks.

The target dose is usually 5 mg per kilogram per day; however, the addition of drugs that compete with the cytochrome P-450 enzyme system in the liver can increase cyclosporine blood levels by 30% - 60%. This will allow the daily dose to be tapered to every-other-day or the 5 mg per kilogram dosed be lowered.

Ketoconazole (5 to 10 mg per kilogram per day) can be administered concurrently to increase cyclosporine blood levels. In these patients, the dose of cyclosporine can be reduced (approximately half) or possibly tapered sooner than in patients not receiving the combination protocol. The addition of ketoconazole is especially useful in allergic patients with concurrent *Malassezia* dermatitis or otitis.

Recheck the patient only after 4-6 weeks since rechecking earlier may not identify improvement and produce more owner frustration.

Some patients do better with BID or daily dosing rather than being tapered to every other day administration.

Make sure the owner has a back-up supply to prevent treatment gaps.

Practical Tips:

For bid dosing, the capsules can be ruptured and half of the content expressed into the food or a treat. (It may help to let the capsule set outside of its foil wrapper for several minutes to let it soften.)

Educate the owner about the long-term prognosis and need for continual treatment.

Only treat animals that have failed more conservative therapies; antihistamines, topical antipruritics, food trials, allergen avoidance; these are less expensive and less medically invasive.

Use poly-modal therapy protocols; concurrent antihistamines, topical antipruritics, EFAs.

The cost for the 10mg is the same for the 25mg so consider dividing the 25mg capsule.

Don't forget to monitor the patient for pyoderma, yeast dermatitis, demodex, otitis, and UTIs; especially if concurrent steroids are being used.

If the patient is flea allergic, make sure the owner keeps current with control measures.

Managing Adverse Effects:

25% of patients will develop GI side effects but less than 5% will be serious enough to require the cyclosporine to be stopped.

If the patient demonstrated GI symptoms, give after food or divide the dose into 12 hour increments.

The Bloom Protocol to avoid GI symptoms: For the first 7 days, the cyclosporine is gradually increased so that the maintenance dose is achieved on day 7. During this induction phase cyclosporine is administered with metoclopramide and food. On day 10 the metoclopramide is discontinued and the cyclosporine is administered with food until day 14 at which time the cyclosporine is administered on an empty stomach to maximize absorption.

Pretreatment survey blood work (CBC, serum chemistries, and urinalysis) is usually performed to identify patients with concurrent renal or liver disease. Generally after the first four to six weeks of cyclosporine therapy, survey blood work and urinalysis is reevaluated to identify any developing problems.

Do not treat dogs with neoplasia and monitor dogs for tumor development.

Watch for warts.