

Allergies

Welcome to East Tennessee, the Allergy Capital of the World! Depending on the allergen, allergy season may last anywhere from a few weeks to year-round. Common symptoms include ear and skin infections, itching (pruritus), red and runny eyes, sneezing, and coughing.

There are only two things you can do with allergies: cure or control.

Cure: allergy testing and vaccine (desensitization). Intradermal skin testing (IDAT) is recommended over serum testing, as there is less risk of false positives, which hinder the ability to make a successful vaccine. Allergy testing is performed the same way as in humans, by evaluating an allergic reaction to a pure sample injected into the skin. The goal is to prevent the body from reacting to the allergen in the future by “training” the immune system. -- must be done by a dermatologist (i.e. Knoxville, TriCities)

Control: medications to minimize reaction to the allergens. At Animal Hospital, we understand the frustration associated with treating allergies, especially with rechecks and the cost of multiple medications. As there is no “magic bullet” to control allergies, we recommend a multimodal approach.

A) Itching, also known as pruritus (from most side effects to least):

- 1) Steroids - decrease inflammation; side effects include weight gain, diabetes, PU/PD, panting, and Cushing’s disease. Goal: lowest effective dose
- 2) Atopica - similar to allergy shots, without having to know the allergen; side effects include vomiting, diarrhea, and worsening of infections.
- 3) Apoquel - prevents the signal from reaching the cell to cause itchiness; side effects include worsening of infections and potential promotion of certain skin tumors. Tablet given once to twice daily.
- 4) Cytopoint - (dogs only) injection that binds the itch receptor (IL-31); side effects generally injection-related (swelling, pain). May provide relief for 1-3 months!
- 5) Antihistamines (Benadryl, Zyrtec, Hydroxyzine) - unpredictable symptomatic treatment in some animals but generally safe; most common side effect is sedation.

B) Shampoos help to clear the skin of allergens, limiting the amount of time to cause reaction. They also keep the skin healthier by establishing a protective barrier against bad microbes (yeast and pathogenic bacteria). Some shampoos are also medicated to help control the microbes on the skin’s surface.

C) Fish oils (Omega 3 fatty acids) - EPA and DHA - promote a “less inflammatory” pathway than standard omega 6 fatty acids; also good for heart, joints, and cognitive dysfunction (doggie dementia). Side effects may include diarrhea and weight gain.

D) Probiotics stimulate the immune system by “flooding” the system with good bacteria and have no side effects (a double win).

E) Antibiotics and antifungals may be needed to help the immune system get infections under control, as there’s a vicious cycle of itching >> inflammation >> infection >> skin breakdown. These medications should be used judiciously to limit the risk of antimicrobial resistance, which is already a major concern in both human and veterinary medicine.