

Treatment of Atopic Dermatitis

Atopic dermatitis is an allergic skin disease affecting both dogs and cats. The exact cause or development of atopic dermatitis is not fully understood but it is currently thought that affected animals are genetically predisposed and as a result, they have an exaggerated immune response and defective skin barrier. A poor skin barrier allows easy penetration of bacteria/yeast (naturally residing on the skin) and environmental allergens (such as pollens and mites) and consequently, these “foreign invaders” exacerbate the detrimental cycle of skin inflammation and feeling itchy. Certain breeds are more likely to develop atopic dermatitis than others such as, in dogs, West Highland White Terriers, French Bulldogs and Labradors.

As previously mentioned, atopic dogs and cats have inflamed and itchy skin; to protect the skin and make affected animals feel less itchy, anti-itch treatment should be started. In general, there are six different anti-itch treatment options available, all with various pros and cons. There is not one option that suits all dogs and cats, so it is the responsibility of the dermatologist to choose the most suitable. Examples of factors influencing the decision include:

- If itching and/or the affected skin (including the ears) is localised or widespread
- How quickly it takes for the treatment to have an effect
- What treatment has been tried before and what has worked well
- How the skin looks and if a secondary infection is present
- Route of administration
- Cost and owner preference.

Below is a table summarising the six anti-itch treatment options available - if you have any further questions, please speak to your dermatologist.

Medication	What is it and how does it work?	How is it given?	Speed of action	Cost	Side effects
Topical steroid: Cortavance *Licensed to use on the skin of the body only	Anti-inflammatory that inhibits the process of inflammation in the skin only, i.e. minimal systemic effects	Solution that is either: - Sprayed onto the skin - Applied into the ear	Quite rapid with obvious improvement after 1-2 weeks	1 bottle = £70 and once broached, can be used for 6 months	Short-term: none reported Long-term: thinning of the skin, alopecia, ulceration

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Oral steroids: Prednisolone/methylprednisolone/dexamethasone	Anti-inflammatory that inhibits the process of inflammation	Tablets or liquid given daily to start with, then tapered	Rapid: 4 hours	Cheap Example: tablets for a medium-sized dog for 1 month = approximately £20	Short-term: increased drinking and urination, increased appetite and weight gain Long-term: muscle wastage, urinary tract infections, induced hormone disease (Cushing's)
Atopica/Cyclavance/Sporimmune	Another anti-inflammatory that inhibits the different cell types involved in allergy	Capsules or liquid given daily to start with, then tapered	Slow: 4-6 weeks	Most expensive Example: capsules for a medium-sized dog for 1 month = approximately £275	Short-term: vomiting/diarrhoea can occur Long-term: thickening of the gum, increased hair growth, risk for secondary skin infections
Apoquel *Licensed for dogs only	Blocks the neural pathway causing the sensation of itch	Tablets given twice daily for 2 weeks, then once daily	Rapid: within 24 hours	Expensive Example: tablets for a medium-sized dog for 1 month = approximately £85	Short- and long-term: urinary tract infections/cystitis, vomiting/diarrhoea, skin abnormalities including masses

Medication	What is it and how does it work?	How is it given?	Speed of action	Cost	Side effects
Cytopoint *Licensed for dogs only	Synthetic antibody that neutralises a specific cell type involved in allergy	Injection given every 4 weeks to start with, then potentially every 5-6 weeks	Rapid: 24 hours	Expensive Example: injection for a medium-sized dog for 1 month = approximately £100	None reported so far (new medication)
Allergen-specific immunotherapy	Solution containing a tiny amount of selected allergens; the intention of this treatment is to desensitise the immune system to the allergens in the solution so that when they are encountered in day-to-day life, no allergic reaction occurs	Injection given every few weeks to start with, then every month	Very slow: 9-12 months	Initially expensive Example: vial for 1 year = £250-300	Very rare but a few side effects are reported to transiently occur after the injection is given: itchiness, sleepiness, vomiting/diarrhoea