



ALLERGY IN DOGS

References:

1. Hillier, et al. Vet. Immunol. Path. 81 (2001) 147-151
2. Sousa, et al. Vet Immunol. Path. 81 (2001) 153-157
3. Willemse. Tijdschr. Diergeneesk. Deel 129 (2004) 402-408
4. Griffin, et al. Vet Immunol. Path. 81 (2001) 363-383

Artuvetrin® has a marketing authorization in the Netherlands.



 **ARTUVET**
animal health bv

www.artuvetrin.com

ARTUVET ANIMAL HEALTH BV • P.O. BOX 612 • 8200 AP LEELSTAD • THE NETHERLANDS

 **ARTUVET**
animal health bv

Allergy in dogs

The aim of this brochure is to provide you with some background information about allergy in dogs, how the disease is diagnosed and what are the options for therapy. In this brochure you will find more information about specific treatment with Artuvetrin®.

What exactly is an allergy?

An allergy is an exaggerated and adverse reaction by the body's immune system to external substances. As soon as the immune system encounters anything that is foreign to the body, it responds by creating antibodies and immune cells.



When the same substance is encountered again, the body decides whether to react and how. This is where the fault lies in allergy patients. Instead of reacting slightly or not at all, there is a severe reaction.

What happens then?

When there is repeated contact with the allergen (as the material from outside the body is known) the immune system reacts by producing substances that cause an inflammatory response in the skin (sometimes in the mucous membranes too) and subsequently cause itching.

What can dogs be allergic to?

Allergies are common in dogs. Types of allergy that dogs may suffer from include:

- Atopic conditions sometimes called atopy: An allergy to materials in the environment, comparable to hay fever or dust mite allergy in humans.
- Allergy to fleas induced by flea bites.
- Allergy to food where animals develop a hypersensitivity to certain components in their diet.
- Contact allergies where an allergic reaction in the skin is seen to such things as plastic, linoleum, paint and cleaning materials.
- Occasional allergic reactions can arise after medications are given.

Because the symptoms associated with the various allergies may look very similar, it is important that a proper investigation is carried out to find the precise cause of the allergy.

Atopy

Atopy is one of the most important forms of allergy in dogs. Between 3% and 15% of dogs suffer from an atopic condition¹. It is a hereditary allergy to the pollen of some plants (e.g. grasses, weeds, trees), fungi or various dust and storage mites.

The symptoms in an atopic individual usually manifest themselves before the age of 3 years. The initial symptoms are often mild and are tolerated by owners because they respond well to short-term symptomatic therapy or because they initially only appeared at certain times of the year such as pollen allergies in the summer.

Certain breeds appear to be at higher than average risk of developing atopy.

Such breeds include the Lhasa Apso, Schnauzer, Alsatian, Boxer, Labrador, Golden Retriever, Poodle, West Highland White Terrier, Cairn Terrier, Jack Russell and Fox Terrier².

Symptoms of atopic conditions

The most obvious sign of an atopic condition is itching. Commonly, dogs will lick or bite their feet and can be seen rubbing their heads along the floor or other objects. This can cause skin inflammation. Occasionally, allergic animals will develop watery eyes or sneeze. The inflammation of the skin on the paws, head, armpit or groin associated with the itching are the most important criteria for making this diagnosis.

The skin inflammation can be exacerbated by



Inflammation of armpit and groin.



Inflammation at the back of the carpi.

bacterial (Staphylococcus) or yeast (Malassezia) infections, which will also require treatment.

Diagnosis of an atopic condition

Other conditions that appear similar to atopy are excluded, based upon previous history and an extensive examination.

The next step in the investigation of an atopic condition is to carry out a specific allergy test. There are two kinds of allergy tests available; a serum (blood) test and a skin test.



The right treatment

The allergy test. Specially developed allergy tests will determine which allergen your dog is allergic to. This can be done by a serum test or a skin test; your veterinarian will decide which test to use. Below there are pictures of some common allergens dogs can be allergic to.



Treatment of atopic conditions
When it has been determined that the dog is allergic, various forms of treatment are possible. Each form of treatment should in principle be continued for life.

- The best and simplest treatment is to avoid contact with the substance or substances (allergies to more than one material is observed regularly in dogs). Unfortunately that is not always feasible.
- Drugs to treat the inflammation, such as corticosteroids (prednisolone) and cyclosporine, are excellent at suppressing the allergic reaction. However, these medicines do have significant disadvantages, especially when they have to be given as long-term therapy over an animal's lifetime as is the case with atopic conditions. For that reason, it is advisable only to administer these medications for short periods. Medicines such as anti-histamines do not have much effect in dogs.
- An entirely different type of treatment is described as allergen-specific immunotherapy. After determining what the dog is allergic to, it is possible to make the dog less sensitive, or not sensitive at all, to these substances. This specific immunotherapy is prepared for each patient, based on the various substances that cause the allergic reaction in that patient: Artuvetrin® Therapy. The immunotherapy is administered at steadily increasing interval doses. The aim of the injections is to make the immune system less sensitive to the substances that trigger the allergic reactions.



Artuvetrin® Therapy
Dogs that have symptoms for more than 3 months of the year can in principle be considered for allergen-specific immunotherapy such as Artuvetrin® Therapy. The treatment helps ensure that the complaint is kept under control and that the symptoms are greatly reduced. Your veterinarian can give you the accurate advice.

Treatment results
The proportion of dogs that respond well to the treatment is about 75%³. It will take time for the treatment to have any noticeable results. Stopping the treatment and re-examining the dog is only advised if there are no visible results at all 9 months after starting treatment.

Undesirable effects
Artuvetrin® Therapy has virtually no side effects and can therefore be given for long periods⁴. In 10% of the dogs treated, the itching is observed to increase and then fade away again 1-2 days after the injection.

Flowering period		Months											
Months		J	F	M	A	M	J	J	A	S	O	N	D
GRASSES													
Festuca pratensis	Meadow fescue												
Dactylis glomerata	Orchard grass												
Lolium perenne	Rye grass, perennial												
Poa pratensis	Blue grass, Kentucky												
Phleum pratense	Timothy												
MITES													
House dust mites													
Storage mites													

Flowering period		Months											
Months		J	F	M	A	M	J	J	A	S	O	N	D
WEEDS													
Urtica dioica	Nettle												
Chenopodium album	Lambs quarter												
Plantago lanceolata	Plantain, English												
Asteriscus vulgaris	Common mugwort												
Parietaria officinalis	Pellitory, wall or erect												
TREES													
Betula pendula	Birch												
Corylus avellana	Hazelnut												
Salix viminalis	Willow												

Examination/treatment

An allergy test is used to determine the allergens your pet is allergic to. Based on the results of the allergy test, Artuvetrin® Therapy will be prepared specially for your pet. The results of the allergy test and the allergens that will be included in the Artuvetrin® Therapy can be seen in the table below.

Artuvetrin® allergens	
TEST POSITIVE - INCLUDE IN THERAPY	TEST POSITIVE - INCLUDE IN THERAPY
INDOOR	OUTDOOR
Tyrophagus putrescentiae (copra mite)	Orchard grass
Dermatophagoïdes farinae (farinae mite)	Timothy grass
Lepidoglyphus destructor (hay mite)	Fescue, meadow
Dermatophagoïdes pteronyssinus (house dust mite)	Rye grass, perennial
Acarus siro (grain mite)	Blue grass, Kentucky
	Grass pollen mixture
Cat epithelium	Birch
Flea	Hazel
	Willow
Alternaria alternata	Cypress, Italian
Aspergillus fumigatus	Olive
Cladosporium herbarum	Sycamore, eastern
Malassezia	Tree pollen mixture I
Fungi mixture I	Tree pollen mixture II
*	
*	Plantain, English
*	Mugwort, common
*	Nettle, stinging
*	Pellitory, wall or erect
*	Lambs quarter
*	Weed pollen mixture

* Other allergens tested positive and included in Artuvetrin® Therapy.

Important information

Name of owner :

Name of animal:

Age :

Breed :

Advised treatment schedule

Allergen-specific immunotherapy with Artuvetrin® Therapy will be up dosed according to a particular schedule, as shown in the table below. As you will notice, the time between injections increases.

Initially there are two weeks between the injections and this increases up to four-week intervals between injections later on. Your veterinarian can decide if there is any need to adjust this schedule.

Artuvetrin® Therapy			
ADVISED SCHEDULE	DATE	DOSAGE	REMARKS
Week 1		0.2 ml	
2 weeks later (week 3)		0.4 ml	
2 weeks later (week 5)		0.6 ml	
2 weeks later (week 7)		0.8 ml	
3 weeks later (week 10)		1.0 ml	
3 weeks later (week 13)		1.0 ml	
4 weeks later (week 17)		1.0 ml	
4 weeks later (week 21)		1.0 ml	
	*		
	**		

* Next injection in consultation with your veterinarian.

** Because each Artuvetrin® Therapy is prepared specially for the individual, there will be a delay between ordering and delivery. It is therefore advisable to order the follow-up therapy at least two weeks in advance.