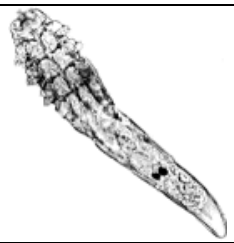
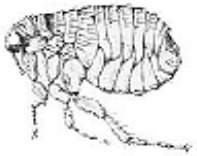
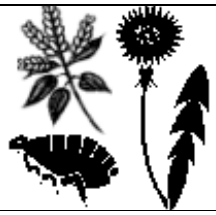
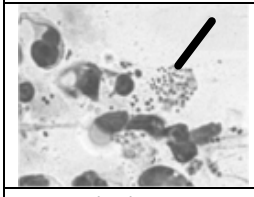
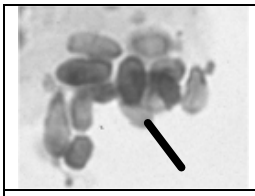
ITCHY SKIN (PRURITIC DERMATITIS)

CAUSE	DIAGNOSIS	SPECIFIC THERAPY	NON-SPECIFIC THERAPY
	-Skin scrapings -Response to trial therapy	- REVOLUTION® - ADVOCATE® - All in contact animals to be treated	-prednisolone for itching
SCABIES	Rare		
	-Skin scrapings	- Doramectin twice weekly	-cephalexin for secondary skin infections
DEMODEX	Common		
	-Fleas present -Flea droppings present	-REVOLUTION® -FRONTLINE *Plus*® -CAPSTAR® -COMFORTIS®	-NEXGARD® -ADVOCATE® -prednisolone for itching -environmental decontamination
FLEAS	Very common		
	- Food elimination trial for <u>6 WEEKS</u> followed by provocative testing on a weekly basis.	-Avoidance -Natural Balance Delicate Care(Kangaroo & Duck) -Eukanuba Veterinary Response Diet FP -BlackHawk Fish and Potato -Holistic Select - Anchovy, Sardine and Salmon -Canidae - Pure Sea -	
FOOD ALLERGY	Common		
	- Intra-dermal skin testing - Serum allergy testing	-Hyposensitisation	-prednisolone -antihistamines -cyclosporin - fishoil 1000iu /10 kg
ATOPY	Very common		
	- Patch testing	- Avoidance - Trental400®	- prednisolone for itching - Mometasone ELOCON - Cortavance Spray
CONTACT ALLERGY	Uncommon		
	-Sticky tape prep cytology - Skin culture	- cephalexin 10-20mg/kg twice or three times daily	- MALASEB washing twice weekly
Staphylococcus intermedius	Common		

	- Sticky tape prep cytology - Skin culture	- ketaconazole 10mg/kg	- MALASEB washing twice weekly
Malassezia pachydermatis	Common		

Work-up guidelines for the itchy dog: Visit 1

1.Multiple superficial and deep skin scrapings

2.If negative then use Revolution for three treatments two weeks apart

3.Do cytology on any greasy skin surface with tape strip impression smears to look for *Malassezia* organisms

4.If present then treat with topical Malaseb shampoo twice a week and ketoconazole 5 to 10mg/kg/bwt daily for four weeks

5.If papules, scaling, pustules, epidermal collarettes are present then do skin surface cytology with either direct impression smear or tape strip

6.Begin an elimination diet trial using a novel source of protein and carbohydrate for six weeks

7.Withdraw corticosteroids

8.Revisit at 4 weeks....refer for intradermal allergy testing

Diagnostic testing for food hypersensitivity

Elimination diet

Definitive diagnosis of food hypersensitivity in dogs and cats is made only on the basis of elimination diets and provocative exposure testing.

Length of diet trial

The necessary duration of the elimination diet as a diagnostic test is controversial. Most dermatologists believe that some improvement should occur within **4 to 6 weeks**.

Constituents of elimination diet

Hypoallergenic diets must be individualised for each patient, on the basis of careful dietary history. The primary objective is to select a food combination that has **minimal or no history of previous exposure**.

DOGS

There is no single ideal elimination diet for all dogs with suspected food allergy; possible options for protein include **kangaroo, horse, donkey, goat, fish, turkey, duck, venison, emu, rabbit and possible options for carbohydrate include potato, sweet potato, beans or barley.**

Feeding a strict diet is essential; make sure to **exclude** rawhide chews, flavoured dietary supplements; beef flavoured heart worm prophylaxis etc.

CATS

In Australia, the commonly fed commercial foods contain beef, lamb, chicken, fish and wheat. We tend to base our elimination diets on **kangaroo, horse, goat, venison, rabbit, pork or baby food (turkey, ham)**. We do not use a carbohydrate source such as potato or rice, as is employed in the dog, as this is often unpalatable for the cat. In many cases to adequately perform the dietary trial the cat may need to be confined inside.

Is it balanced?

The diet is not complete and balanced and is not meant to be so. It is meant to give the animal something to eat during the test period. Occurrence of overt signs of vitamin, mineral or taurine deficiencies after the short period of the test would be rare.

What about commercial limited protein source diets?

If the owner is either unwilling or unable to home cook, commercial diets are available that are unique in their primary ingredients. A commercially prepared limited novel protein source diet offers an alternative to a home prepared elimination diet but is not considered to be as accurate.

It is critical to understand that the reliability of most these commercial diets has either not been confirmed or confirmed in limited trials only.

Assessing response to diet

The major clinical sign being evaluated during the elimination diet is the pruritus. The level of pruritus should markedly decrease, but this may be gradual and may take **4 to 8 weeks to become** evident.

As up to 75% of food hypersensitive dogs have other concurrent hypersensitivities (insect, atopy), the response to a hypoallergenic diet may be partial.

Confirming food allergy

A presumptive diagnosis of food allergy can be made if the dog or cat responds to the elimination diet. Confirmation of a cause and effect relationship between food and a set of symptoms is still dependent upon provocative challenge. Provocation testing is achieved by feeding a test meal of the dog's or cat's previous diet. If no relapse is seen, treats are introduced.

Sequential rechallenge

Involves feeding each of the major food items that were contained in the original diet reported to cause food hypersensitivity in dogs (beef, dairy products, wheat, soy, chicken, lamb, pork, eggs, corn) or cats (beef, dairy products, fish, chicken, lamb) by adding one pure food ingredient to the restrictive diet to determine which individual allergen or allergens is incriminated. Almost all adverse reactions will occur within 7 days. Rarely up to 14 days of exposure to the offending ingredient may be necessary.

CANINE ATOPIC DISEASE

WHAT IS ATOPY?

Atopy is a common skin disease causing itchiness in the dog. It is a reaction by an individual animal's body to inhaled airborne pollens from grasses, weeds trees, mould spores and house dust. Most dogs develop atopy as young adults ie between one and three years of age. The most common clinical sign is itching, usually involving the muzzle, around the eyes, ear flaps, armpits, groin and paws. Some dogs may have recurrent ear infections. As a result of chewing, licking, rubbing and scratching, the skin becomes inflamed and is prone to secondary infections with bacteria and yeast. In dogs with chronic disease, there is hair loss and the skin often becomes thickened scaly and black. The hair coat may feel greasy and be associated with an offensive odour.

HOW IS IT DIAGNOSED?

Atopy is diagnosed by performing an intradermal skin test on your dog. This involves clipping a patch of hair from the side of the flank and pricking the skin with tiny amounts of purified extracts of relevant grass, weed and tree pollens, mould spores and house dust. A positive reaction is a raised, red swelling observed thirty minutes after the injection. Many drugs including antihistamines and corticosteroids affect the skin test. As all cortisone injections, tablets, lotions and eye and ear drops interfere with the intradermal skin test, it is important that your pet is withdrawn from treatment prior to testing.

Identification of specific allergens can also be performed by blood testing. This is unaffected by concurrent medications, feeding or current state of the allergic flare.

HOW CAN ATOPY BE TREATED?

There are several ways that atopy can be managed in order to keep your dog comfortable. Therapy can involve a combination of these alternatives.

1. AVOIDANCE

Unfortunately, avoidance of grass and weed pollen and house dust is virtually impossible. These substances are airborne and in the case of pollens, may travel considerable distances. In some instances, dogs with house dust allergy may benefit from being kept outdoors.

2. HYPOSENSITISATION

This involves desensitising your pet to things that it is allergic to through a course of injections with purified extracts. It is considered the best treatment for atopy in the dog. There is more detail about hyposensitisation in the information sheet. It is important to realise that the improvement with allergy vaccines is gradual, with obvious benefits taking from between two and six months to appear. While allergy vaccines considerably help some 70% of dogs, there are a percentage of dogs (approximately 30%) in which the vaccine is less effective.

Desensitising can also occur using oral allergens that are sprayed daily under the tongue. These must be given every day.

3. MEDICAL THERAPY

While your dog is receiving an allergy vaccine, or alternatively, if you have elected not to pursue hyposensitisation, medical therapy is required to control the itching. The most useful agents to control allergy are cortisone-based drugs. Unfortunately, these can be associated with undesirable side effects. Common side effects include increased thirst, urination and appetite, weight gain and panting. In the long term, cortisone can be associated with infections, liver disease, pancreatitis and gastrointestinal ulceration. They are, therefore, not satisfactory for long term usage in controlling allergy. Other

medical options include antihistamines and fatty acid supplementation that can help relieve itching but rarely control the signs completely.

4. TOPICAL THERAPY

Frequent shampooing of your dog will help remove pollen from the coat, surface debris, and bacteria and help soothe the skin. We generally recommend that your dog be bathed once a week. Topical cortisone lotion or ointment can be used if only localised areas ie. paws, ears or around the eyes are affected.

5. FLEA CONTOL

It is important to use a thorough flea control in your atopic pet, even if your pet is not allergic to flea bites, the presence of fleas may aggravate his/her underlying allergy.

Allergen		Allergen	
GRASSES		Saltbush/Scale	*Atriplex lentiformis, canescens*
		Lenscale,Wingscale,Spearscale Annual Saltbush	*patula, wrightii*
Bahia	*Paspalum notatum*	Stinging Nettle	*Urtica dioica*
Bermuda	*Cynodon dactylon*	Water Hemp	*Acnida tuberculatus*
Blue Grass	*Poa pratensis*	**TREES**	
Brome	*Bromus inermis*	Acacia	*Acacia baileyana*
Canary	*Phalaris arundinacea*	Alder Red, White	*Alnus rubra. rhombifolia*
Common Reed	*Phragmites*	Ash White, Arizona	*Fraxinus americana, velutina*
Cultivated Barley	*Hordeum vulgare*		
Cultivated Corn	*Zea mays*	Australian Pine	*Casuarina equisetifolia*
Cultivated Oat	*Avena sativa*	Baccharis	*Baccharis halimifolia*
Cultivated Rye	*Secale cereale*	Bayberry	*Morella cerifera*
Cultivated Wheat	*Triticum aestivum*	Beech	*Fagus grandifolia*
Fescue	*Festuca elatior, F. rubra*	Birch Water, Paper	*Betula occidentalis,papyrifera*
Grain Mix	Barley, Corn, Oat, Rye, Wheat		
Johnson	*Sorghum halepense*	Box Elder/Maple	*Acer negundo, rubrum*
Orchard	*Dactylis glomerata*		
Perennial Rye	*Lolium perenne*	Cedar/Juniper	*Juniperus occidentalis, ashei*
Quack	*Agropyron repens*		
Redtop	*Agrostis alba*	Cottonwood/Poplar	*Populus fremontii, alba*
Salt	*Distichlis spicata*	Cypress	*Cupressus arizonica*
Sweet Vernal	*Anthoxanthum odoratum*		
Tall Oatgrass	*Arrhenatherum elatius*	Elm	*Ulmus americana*
Timothy	*Phleum pratense*	Eucalyptus	*Eucalyptus globulus*
Velvet	*Holcus lanatus*	Grand Fir	*Abies grandis*
		Hackberry	*Celtis occidentalis*
WEEDS		Hazelnut	*Corylus americana*
Alfalfa	*Medicago sativa*	Hickory/Pecan	*Carya tomentosa, illinoinensis*
Burrobush	*Hymenoclea monogyra*		
Clover, Red	*Trifolium pratense*		
Cocklebur	*Xanthium commune*	Japan. Black Pine	*Pinus thunbergiana*
Common Reed	*Phragmites communis*	Japan. Cedar	*Cryptomeria japonica*
Dandelion	*Taraxacum officinale*	Linden	*Tilia*
Dock/Sorrel	*Rumex crispus, acetosella*	Locust	*Robinia pseudoacacia*
Dog Fennel	*Eupatorium capillifolium*		
Firebush	*Kochia scoparia*	Melaleuca	*Melaleuca quinqvenervia*
Goldenrod	*Solidago spp.*	Mesquite	*Prosopis spp.*
Greasewood	*Sarcobatus vermiculatus*	Mulberry Red, White	*Morus rubra, alba*
Lamb's Quarter	*Chenopodium album*		
Marshelder	*Iva ciliata*	Oak Southen Live, White	*Quercus virginiana, alba*
Pigweed/Careless	*Amaranthus palmeri, retroflexus*	Olive	*Olea europaea*
Plantain, English	*Plantago lanceolata*	Palm	*Arecastrum romanzoffianum*
Rabbitbush	*Ambrosia deltoidea*		
Ragweed Giant, Slender,Short,Western	*Ambrosia trifida ,confertifolia, artemisiifolia, psilostachya*	Pine Ponderosa, Loblolly	*Pinus ponderosa, taeda*
Rapeweed	*Brassica napus*	Pepper Tree	*Schinus*
Russian Thistle	*Salsola kali*	Privet	*Ligustrum vulgare*
Sage Big Sagebrush, Prairie Sage, Mugwort	*Artemisia tridentata frigida, vulgaris ,*	Spruce	*Picea pungens*

Allergen		**Allergen**	
Sweet Gum	*Liquidambar sp.*	**INSECTS**	
Sycamore Eastern, Western	*Platanus occidentalis, racemosa*	Ant, Black	*Camponatus pennsylvanica*
Wall Pellitory	*Parietaria officinalis*	Bee	*Apis mellifera*
Walnut	*Juglans nigra*	Caddis Fly	*Trichoptera*
Willow	*Salix alba*	Cockroach	*Blattella germanica*
		Culicoides	*Culicoides spp.*
		Deer Fly	*Chrysops spp.*
MOLDS		Fire Ant	*Solenopsis richteri*
Alternaria	*A alternata*	Flea	*Ctenocephalides felis*
Aspergillus	*A niger*	Hornet	*Dolichovespula maculata*
Botrytis	*B. cinerea*	Horse Fly	*Tabanus spp.*
Candida	*C. albincans*	House Fly	*Musca domestica*
Cephalothecium	*Acremonium strictum*	Mite, House	*Dermatophagoides farinae*
Cephalosporium	*Trichothecium roseum*		*D. pteronyssinus*
Chaetomium	*C. globosum*	Mosquito	*Culicidae*
Cladosporium	*C. herbarum*	Stable Fly	*Stomoxys calcitrans*
Curvularia	*Dreshslera spicifera*	Wasp	*Polistes spp.*
Epicoccium	*E. nigrum*	Yellow Jacket	*Vespula maculifrons*
Fusarium	*F. solani*		
Helminthosporium	*H. sativum (Bipolaris sorokiniana)*	**MISC**	
Malassezia	*M. pachydermatis*	Cotton	*Gossypium hirsutum*
Monilia	*M. sitophila, (Neurospora intermedia)*	Jute/Sisal	*Corchorus/Agave*
		Kapok	*Ceiba pentandra*
Mucor	*M. racemosus*	Orris Root	*Germanica var florentina*
Nigrospora	*N. oryzae*	Pyrethrum	*Chrysanthemum cinerariaefolium*
Penicillium	*P. notatum*	Tobacco	*Nicotiana tabacum*
Phoma	*P. betae*		
Pullualria	*Aureobasidium pullulans*		
Rhizopus	*R. stolonifer*	**Storage Mites**	
Rhodotorula	*R. rubra*	Grain Storage	*Acarus siro*
Saccharomyces	*S. cerevisiae*	Storage	*Lepidoglyphus destructor*
Trichophyton	*T. rubrum*	Storage	*Tyrophagus putrescentiae*
Stemphylium	*S. botryosum*		
Trichoderma	*T. viride*	**Dust**	
SMUTS		Barn Dust	
Smut Mix	*Bermuda, Johnson*	Cedar Dust	*Juniperus spp.*
Bermuda	*Ustilago cynodontis*	House Dust	
Corn	*Ustilago maydis*	Pine Dust	*Pinus spp.*
Johnson	*Sphacelotheca cruenta*	Redwood Dust	*Sequoia sempervirens*
		Feathers	
EPI/HAIR		Mixed :	Pigeon, *Columba spp.*
Cat	*Felis domesticus*		Duck, *Anas platyrhynchos*
Dog	*Canis familiars*		Parakeet, *Psittacidae spp.*
Guinea Pig	*Cavia porcellus*		Chicken, *Gallus gallus*
Horse	*Equus caballus*		Goose, Anser domesticus
Human			
Mouse	*Mus musculus*		
Sheep Wool	*Ovis aries*		