Allergen Avoidance – Controlling Exposure

House Dust Mites

House dust mites (*Dermatophagoides* species) are common in the environment and feed on human and animal dander, skin scales and hair. They thrive in humidity of 50–70% and are commonly found in beds, mattresses, carpets, sofas and pet bedding. Elimination is impossible; control measures are aimed at inhibiting mite multiplication. Ideally, pet sleeping areas should be maintained according to the following guidelines:

- Wash bedding regularly in hot water.
- Avoid feather and wool bedding, use allergen-proof bed covers and encase box springs in vinyl or plastic covers.
- Vacuum and dust regularly, preferably while pet is outdoors. Use a vacuum with a high efficiency particulate air (HEPA) filter or a double-layered micro filter bag.
- Use a damp or oiled rag to dust rather than dry dusting.
- Groom animal regularly.

Storage Mites

Tyrophagus putrescentiae is a grain storage mite. Storage mites thrive in environments where there is moisture or increased humidity. They can be found in dry food items, such as flour, grains, dried fruits and cereal and may also occur in dry dog and cat food.

Dry pet food does contain some level of moisture (less than 10%), which can create an environment that promotes storage mite growth; however, additional studies are needed to more thoroughly document this.

Pets exposed to this mite through ingestion, inhalation or absorption through the skin may develop an allergy to it, and immunotherapy can be effective in reducing clinical signs. In addition, environmental control may be useful in decreasing exposure to storage mites. Although it is impossible to eliminate mites from the environment, the following steps may help to control the population:

- Do not stockpile food; purchase only what is needed to maintain a maximum of 30-day supply.
- Prior to purchase, check the food bag for tears or holes.
- Store pet foods in airtight containers in a cool, dry environment.
- Divide the bag of pet food into one-week portions and place in freezer safe storage containers. Keep the containers of food in a freezer until needed.

Fleas

Fleas are one of the most common causes of itchy skin in pets. Fleas can cause itching in the following ways:

- Their physical presence causes scratching, biting and self-trauma, which develops into a perpetual cycle.
- Hypersensitivity, or allergy, to flea saliva injected when fleas bite.

Pet with hypersensitivity to fleas may develop flea allergy dermatitis (FAD), an extremely itchy disease which predisposes them to secondary bacterial and/or yeast skin infections. FAD should be considered a progressive disease; each flea season results in an increasingly severe reaction. A flea control strategy is essential for these patients.
An effective flea control program must involve the entire household, and all animals in contact with the affected pet. The goal is to eliminate fleas from the pet and the environment and prevent re-infestation. Recommendations:

- Frequently vacuum and mop all floors (dispose of vacuum bag outside of the home).
- Wash floors and pet bedding.
- Talk with your veterinarian about topical and oral flea control products.

Pollen Allergens

Pollens from grasses, trees and weeds can be carried great distances by air currents. Pollen exposure most often occurs through inhalation of airborne particles and/or absorption through the skin. Avoidance is impractical, but exposure can be minimized.

Recommendations:

- If possible, limit exposure to certain conditions and times of day, such as during high pollen counts or windy days.
- Vacuum and dust regularly.
- Bath the pet regularly with hypoallergenic shampoos.
- Dry bedding in dryer instead of hanging outside.

Mould Allergens

Moulds are a type of fungus and can be found indoors and outdoors. Generally, they grow in moist organic materials.

<u>OUTDOOR levels</u>
Spore levels vary throughout the day and the season. Their levels tend to be higher near the ground.
Common outdoor moulds: Alternaria and Cladosporium

<u>INDOOR levels</u>
Are commonly elevated when humidity is high. Common locations include bathrooms, laundry rooms, basements, and closets. Mould control involves controlling moisture levels (relative humidity should be lower than 50%)
Common indoor moulds: Aspergillus and Penicillium