



# THE UNIVERSITY OF TENNESSEE Occupational Health Program

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## Allergies Related to Animals

### 1.0 Introduction

Animal allergies or development of new animal allergies are a significant occupational health concern for individuals who work with any animals. In a research or teaching environment, dogs, cats, rabbits, and rodents are the most frequently implicated species. Materials from animals that have been traditionally implicated in the development of allergies include fur, hair, dander, urinary proteins and dirty bedding. Individuals come into contact with such allergenic material from animals in many ways. Handling animals, performing techniques such as injections, blood sampling, testing, euthanasia, feeding and cleaning cages are examples of procedures where a person might be exposed to allergens. Exposure may occur by inhaling contaminated dust or by direct contact with animal material. It is virtually impossible to be in contact with animals without also coming in contact with allergenic material.

### 2.0 People at Risk

Anyone exposed to or working with animals are at risk to developing animal allergies.

### 3.0 Symptoms

Allergies can manifest as a variety of symptoms, including rhinitis (runny nose and sneezing similar to hay fever), conjunctivitis (irritation and tearing of the eyes), asthma, and /or dermatitis (skin reactions caused by contact with an allergenic substance).

Between 10-20% of individuals exposed to animals in a laboratory setting will develop some symptoms of allergy. While most individuals who will develop an allergy to animals will do so within the first two years of exposure, certain sensitive individuals may experience almost immediate reactions. Individuals with a prior personal or family history of allergies, asthma, or hay fever may have an increased risk for developing animal allergies.

Most individuals developing reactions from animal contact experience symptoms such as allergic rhinitis and conjunctivitis. However, more severe reactions with respiratory symptoms, such as asthma with shortness of breath, wheezing or coughing, may also be associated with exposure. Individuals with a prior personal or family history of allergies or asthma may be more likely to develop animal-related asthma after contact with animals. Skin manifestations, such as general or localized rash/wheals, may also be associated with animal contact. Personnel must report all illnesses which result from job-related activities to their immediate supervisor for evaluation/investigation, including animal related allergies,

## 4.0 Diagnosis, Prevention and Treatment

Certain procedures should be followed to minimize the risk of developing allergies to animals. Animals procedures should be conducted in well-ventilated areas to minimize the presence of air-borne allergens. Cage dump stations must be utilized as directed during bedding changes. Exposure can be further reduced by using good hygiene practices (e.g. hand washing) and wearing personal protective equipment such as gloves, particulate or fine dust masks (as indicated), and dedicated laboratory coats which are removed upon exiting the facility. It needs to be emphasized that if the use of a respirator (any filtering device above a dust mask such as a N95 etc.) is warranted to minimize risk, proper fit must be evaluated by a trained professional. Please contact the Occupational Health Program nurse at [bcranmor@utk.edu](mailto:bcranmor@utk.edu) or 865-755-8924 for further guidance related to use of respirators. Consult with the facility manager for information related to specialized equipment, work areas and work routines available/practiced in the facility where to further decrease exposure.

## 5.0 Resources

For other resources regarding allergies please follow the web link below to the CDC asthma and allergy web page.

<https://www.cdc.gov/asthma/workplace.html>

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