

Preventing Animal Allergies in Laboratory and Vivarium Personnel

Animal-related allergy is one of the most important health hazards encountered by laboratory animal employees. Those employees who work with animals are at risk of becoming sensitized to allergens such as animal dander, scales, fur, body wastes, and saliva. Animal allergies can manifest as allergic rhinitis (runny nose and sneezing); allergic conjunctivitis (irritation and tearing of the eyes); asthma (shortness of breath, chest tightness, wheezing); or as dermatitis (a skin reaction). These respiratory symptoms can be persistent and severe; and can lead to permanent disability or require a career change.

Inhalation is one of the most common ways for allergens to enter the body. Workers, over a period of time, may inhale sufficient quantities of allergens to become sensitized. Following sensitization, workers manifest symptoms when exposed again. The longer the exposure continues; the most likely the illness will persist, even after all contact with animals has stopped.

Exposure to animal allergens can occur during regular husbandry duties as well as during the course of research and may include activities such as feeding, cage cleaning, administering agents, sacrificing, surgery, and collecting body fluids.

Sources of exposure to allergens can vary according to animal species, but rabbits and rodents are some of the most common laboratory animals involved in the development of occupational asthma.

To reduce exposure to animal allergens, which in turn reduces your risk of developing an allergen sensitivity, the following steps should be taken:

- Perform animal manipulations within ventilated hoods or biosafety cabinets whenever possible.
- Avoid wearing street clothes while working with animals. Wear dedicated, protective clothing.
- Leave work clothes at the workplace to avoid potential exposure problems for family members. Never bring soiled protective equipment home for laundering.
- Wash your hands frequently and avoid touching your face while working with animals or while working in Vivarium spaces.
- Keep cages and animal areas clean.
- Reduce skin contact with animal products such as dander, serum, and urine by using gloves, lab coats or gowns.
- If you suffer from allergies related to the species you must work with, consider wearing an approved NIOSH certified respirator while working with animals or while working in Vivarium spaces. **Note that prior to respirator use, University Health Services Occupational Health Unit must be consulted for respirator use approval.**

Despite the best allergen control measures, some individuals will develop allergies after contact with laboratory animals. In many cases, the symptoms can be adequately managed from a medical standpoint.

Should you develop allergy symptoms that are triggered through interactions with laboratory animals or activities associated with animal husbandry, you must contact both your supervisor and University Health Service Occupational Health Unit. UHS Occupational Health will evaluate you and make specific recommendations to manage your symptoms and to reduce your exposure to animal allergens.

The information above is a brief synopsis of an NIOSH (National Institute for Occupational Safety and Health) alert titled "Preventing Asthma in Animal Handlers". The entire alert is available on-line. <http://www.cdc.gov/niosh/animalrt.html>

Additional information is available from these sources.

Occupational Health and Safety Administration: <http://www.osha.gov/SLTC/occupationalasthma/>

American Academy of Allergy Asthma & Immunology:
<http://www.aaaai.org/patients/publicedmat/tips/occupationalasthma.stm>