



The University of Texas at El Paso Respiratory Protection Program

Laboratory Animal Hazards

UTEP researchers who handle laboratory animals and/or enter are potentially exposed to animal dander, urine, saliva, tissues, and sera. Animal-related allergies are one of the most significant health hazards faced by laboratory animal workers (1). The literature indicates that about 10 to 46 percent of exposed personnel develop laboratory animal allergies, with symptoms progressing from those of minor rhinitis to more severe signs of asthma (2).

Inhalation is one of the most common ways for allergens to enter the body. After a period (frequently for several months, but sometimes many years), you may inhale enough quantities of allergens to become sensitized that is, you could develop symptoms when exposed again, even to small amounts of the allergen (2). More serious reactions to inhaled allergens may result in asthma symptoms such as cough, chest tightness, wheezing, or shortness of breath. A laboratory worker who has developed asthma symptoms from animal allergies can improve or recover completely if he or she immediately stops being exposed to dust containing animal allergens. However, the longer the exposure continues, the more likely the illness will persist, even after all contact with animals has stopped (3).

Symptoms from animal-related asthma and allergies can be severe and may require affected laboratory workers to change jobs or careers (5). Avoiding skin contact with animal products such as animal dander, serum, and urine may decrease your risk of sensitization. Gloves, lab coats, and approved particulate respirators with face shields can all decrease exposure (1) (2) (4).

Tips to prevent allergies:

- Perform animal manipulations within ventilated hoods or biosafety cabinets when possible.
- Decrease skin contact with animal products such as dander, serum, and urine by using personal protective equipment such as gloves, lab coats, and approved respirators (i.e. N95). (1)(2).
- Do not eat or drink in rooms where animals are kept.
- Wash your hands frequently.
- Avoid touching your hands to your face while working in the vivarium.
- Respiratory protection such as N95, can be used to decrease the possibility of developing animal allergies (1).

If you develop allergic symptoms, please inform EH&S as soon as possible 915-747- 7124 eh&s@utep.edu.

Links To Forms

Occupational Health Questionnaire

- [OHP form](#)

Respiratory Protection Questionnaire

- [RPQ questionnaire](#)

Animal Allergies Pamphlet

- [Animal Allergies](#)

References

1. National Research Council. (1997). *Occupational health and safety in the care and use of research animals*. National Academies Press.
2. **Newman-Taylor AJ, Gordon S.** Laboratory animal and insect allergy. [book auth.] Chan-eung M, MaloJ-L, Bernstein DI, eds. Bernstein IL. *Asthma in the workplace*. New York, NY : Marcel Dekker, Inc, pp. 399-414.
3. Ferraz E, Arruda LK, Bagatin E, Martinez EZ, Cetlin AA, Simoneti CS, Freitas AS, Martinez JA, Borges MC, Vianna EO. Laboratory animals and respiratory allergies: the prevalence of allergies among laboratory animal workers and the need for prophylaxis. *Clinics (Sao Paulo)*. 2013 Jun;68(6):750-9. doi: 10.6061/clinics/2013(06)05. PMID: 23778494; PMCID: PMC3674264.
4. Nicholson PJ, Mayho GV, Roomes D, Swann AB, Blackburn BS. Health surveillance of workers exposed to laboratory animal allergens. *Occup Med (Lond)*. 2010 Dec;60(8):591-7. doi: 10.1093/occmed/kqq150. Epub 2010 Oct 1. PMID: 20889818.