LABORATORY ACQUIRED ANIMAL ALLERGIES

**What is an allergy?**

An allergy is an exaggerated reaction by the body’s immune system to proteins. In the case of allergies to laboratory animals, the proteins most frequently associated with the allergic reaction are found in the animals’ urine, saliva, and dander.

**What are the symptoms of allergic reactions to laboratory animals and when do they occur?**

The earliest symptoms include nasal stuffiness, a “runny” nose, sneezing, red irritated eyes, and hives. Symptoms that are particularly troubling are those that suggest the worker is developing asthma. These include coughing, wheezing, and shortness of breath. Asthma resulting from allergic reactions to laboratory animals can result in occasionally disabling breathing problems. Very rarely an employee with allergic symptoms will develop a potentially life-threatening reaction following an animal bite.

Most workers who develop allergic reactions to laboratory animals will do so within the first twelve months of working with them. Infrequently, reactions only occur after working with animals for several years. Approximately half of allergic workers will develop symptoms three or four hours following the exposure.

**What laboratory animals are associated with allergic reactions?**

Most animals used in research have been identified as the source of worker’s allergic symptoms. Because mice and rats are the animals most frequently used in research studies, there are more reports of allergies to rodents than other laboratory animals.

**What are the chances that someone will develop an allergic reaction to laboratory animals?**

It has been reported that one out of every three to five individuals who works with laboratory animals will develop allergic symptoms. Further, one in twenty workers with allergies to animal proteins will develop asthma as a result of their contact with laboratory animals.

**Are there factors that are associated with an increased risk for developing an allergic reaction to laboratory animals?**

Yes, a history of allergy to other animals, typically cats and dogs, is the best predictor for who will develop an allergy to animals found in research laboratories. Other factors associated with allergic reactions to laboratory animals include the individual’s intensity, frequency, and route of the exposure to the animals. Activities such as handling animals and cleaning their cages may be associated with an increased risk of exposure to the animal’s proteins and thereby place the worker at greater risk of developing an allergic reaction. Although workers with a personal, or family history for asthma, seasonal allergies and dermatitis are at increased risk, individuals with no prior history of allergies and only brief work exposures can also develop allergic reactions to laboratory animals.

**What can be done to reduce the chances that someone will develop an allergic reaction to laboratory animals?**

The best practice for reducing the likelihood that a worker will develop an allergic reaction is to eliminate or minimize their exposure to the proteins found in animal urine, salvia and dander. Ideally, this is accomplished by limiting the opportunities to inhale or have skin contact with animal proteins. In addition to using well-designed air handling and waste management systems in research areas, workers can reduce their risk of exposure by routinely using properly selected respiratory protection, gloves, eye shields and gowns as directed by their supervisors.

**What should you do if you are concerned that you have some of the symptoms that suggest an allergy to laboratory animals?**

Contact Student Health Services to schedule an appointment for evaluation. A clinician will review your medical and work history and perform a targeted physical exam. Personnel may also choose to consult with their personal physician.