

Occupational Health – Fact Sheet

Human Allergies to Animals

People who work with animals have an occupational risk of developing allergies. Allergies can manifest in a number of ways including allergic rhinitis (a condition characterized by runny nose and sneezing similar to hay fever); allergic conjunctivitis (irritation and tearing of the eyes); by asthma, shortness of breath, chest tightness, wheezing; or by atopic dermatitis (a skin condition which is caused by contact with a substance to which an individual is allergic). Allergy to animals is particularly common in workers exposed to animals such as cats, rabbits, mice, rats, and guinea pigs. There is some controversy regarding exactly what substance causes the allergy in a certain individual. Previously it had been thought that most allergies were caused by dander and debris from the skin and fur of an animal. More recent studies seem to suggest that exposure to animal urine, saliva, and fecal matter may be equally or more important. Exposure to animal urine may occur either through direct urine contact with skin or more commonly by inhaling dust from the bottom of a cage which has been contaminated with urine or fecal material.

Various studies show that up to 40 percent of workers routinely exposed to animals will develop some allergy symptoms. Most of these reactions are of the allergic rhinitis, allergic conjunctivitis, and rashes. Less than half of these will result in asthma. Individuals who have a prior personal history or family history of asthma, hay fever, or eczema will be more likely to develop asthma after contact with animals, but they do not seem any more likely to develop rhinitis and conjunctivitis than do individuals without such personal or family history. Because of this, it is necessary that everyone exercise certain precautions to attempt to prevent animal allergy.

Symptoms can develop anywhere from months to years after a person begins working with animals. A majority of the individuals who develop symptoms will do so within two years. It is unusual to develop symptoms after more than two years of animal contact. Certain procedures should be routinely followed in order to prevent the development of animal allergy. These same procedures can help to limit allergic symptoms in those who have an animal allergy. Animals should be worked with in extremely well-ventilated areas to prevent build-up of various particles in the air. Workers should always wear personal protective equipment, including gloves, safety glasses, laboratory coats, and an appropriate mask to help prevent direct exposure to the animals, and should perform animal manipulations in a ventilated hood or a biosafety cabinet when possible.,

Despite the best preventive techniques, some individuals will still develop allergies after contact with laboratory animals. Anyone with allergy symptoms related to animal exposure should consult their physician.