

Human Allergies to Animals

Allergy to animals is common and therefore one of the most important occupational problems occurring in workers exposed to animals. Allergies can be 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, gerbils and guinea pigs. There is still 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 **between 15 and 20% of workers exposed to animals will develop some symptoms of allergy**. This percentage may be even higher since some people are forced to leave their jobs because of the severity of the allergies that develop. Most of these reactions are of the allergic rhinitis and allergic conjunctivitis type. Less than half of these will actually be asthma. People 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 these people do not seem any more likely to develop rhinitis and conjunctivitis than do people without such personal or family history. Because of this, **it is necessary that everyone exercise certain precautions to attempt to prevent animal allergy**. These attempts should not be focused only on people with atopic history. Symptoms can develop anywhere from months to years after a person begins working with animals. A majority of the individuals who are going to develop symptoms will do so within the first year. 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 gloves, laboratory coats, and an appropriate mask to help prevent direct exposure to the animals which can cause mild to severe allergic symptoms. This strategy applies to animal urine as well as to animal dander.**

Despite the best preventive techniques some individuals will develop allergies after contact with laboratory animals. Rarely this will be so severe that a person is forced to change their line of work. More commonly symptoms can be controlled with the increased use of masks or respirators while working with animals and the possible use of antihistamine medications. Desensitization therapy has been done for some individuals but this is not as effective for animal allergies as it is for some other types of allergies.

Certainly any one with significant symptoms related to animal exposure should obtain medical advice.

(This publication is courtesy of the University Research Compliance Office, Kansas State University.)