Allergy to Laboratory Animals (ALA)

Policy

Allergy to laboratory animals (ALA) is a condition which can develop in some individuals exposed to laboratory animals in the course of their work.

ALA is a hypersensitivity or allergic response to animal proteins found in body tissues, excretions and secretions of most mammalian species, insects and birds. Urine, hair/fur, dander/animal dandruff, saliva and serum may all contain allergenic proteins. Exposure to bird droppings, locust excreta and crickets has also been associated with development of ALA.

During normal activity in animal units, allergens are deposited onto animal fur, feathers and cages, and may then become airborne as a result of both animal and human activity. Symptoms can be provoked by inhalation of allergen or by allergen introduced into a break in the skin caused by scratches, bites or instruments.

Responsibilities

**Department Heads must:**
- inform UHS of animal workers in the Department.
- ensure animal workers attend pre-employment medical and undergo animal surveillance.
- provide protection measures and personal protective equipment as appropriate.
- ensure animal workers receive appropriate training.

**Director of UHS should:**
- maintain the register of animal workers.
- provide both pre-placement and annual medical surveillance.

**Director of LAU will:**
- update UHS or list of animal workers.
- provide training on animal handling.

**Animal Workers should:**
- complete the pre-placement and annual medical surveillance.
- attend medicals as required in this guidance.
- report without delay any symptoms of allergy to their supervisor for follow up.
Guidance

1. **What are the symptoms of ALA?**

Many of the symptoms of ALA are similar to those of hay fever. They include rhinitis (sneezing and running nose), conjunctivitis (sore and runny eyes), skin rashes such as urticaria (hives or nettle rash), weals on the skin around bites and scratches, and asthma (tightness of the chest and wheezing). In rare cases, anaphylactic shock (a severe form of shock and collapse) may also occur.

The commonest symptom related to animal exposure is running eyes and nose. The most important health problem is allergic asthma, as this may lead to a disabling asthma with recurrent episodes of wheezing and breathing problems.

For those individuals who develop asthma, symptoms may occur during working hours or may be delayed until several hours after exposure has ceased, when the employee is away from the workplace.

2. **When do symptoms first occur?**

ALA symptoms commonly develop within six months of first starting work with animals and in most cases, within a two year period. However they can occasionally occur for the first time after many years of working with animals.

3. **What is the exposure-response relationship?**

So far, the levels of animal allergen to which individuals have to be exposed before symptoms first develop (exposure-response relationship) are not known. It is known, however, that people who have become sensitised can experience symptoms after exposure to very low allergen concentrations.

4. **Who might be affected by ALA?**

Individuals who already have allergic symptoms from exposure to animals, including pets, may be more susceptible to ALA, and these people should be assessed by UHS regarding their suitability for work in animal units. See Health Surveillance.

5. **Which groups are at risk?**

Any person exposed to animal allergens at work may develop ALA. Animal house technicians and researchers usually have more contact with the animals, but it is important to remember that other groups such as cleaning and maintenance staff, regular visitors such as veterinary surgeons, contractors and even some laundry workers handling protective clothing from animal houses, may be exposed to animal allergens.

6. **Health surveillance**

Health surveillance protects the health of individual workers and assists in evaluation of control measures. Early detection of ALA will enable precautionary measures to be adopted that may prevent progression to severe symptoms.

Pre-employment health screening has a number of purposes:
(a) to identify those who would be more vulnerable if they develop ALA. This includes people with medical problems, particularly cardio-respiratory disease;

(b) to identify those who have already developed allergies to animals;

(c) to provide baseline data for later periodic screening;

(d) to raise awareness of the disease, and inform individuals where confidential medical advice can be sought if symptoms develop.

7. Information, instruction and training for persons who may be exposed to animal allergens at work

Before starting work in an animal unit, all technicians, academic staff, students, researchers, cleaners and any other staff who may come into contact with animal allergens should receive relevant training so that they are aware of:

(a) the symptoms of ALA;

(b) where to seek confidential medical advice should symptoms develop;

(c) how to use any control measures provided;

(d) where to obtain and to use personal protective clothing and RPE (including details of any particular jobs for which these are necessary); and

(e) details of health surveillance arrangements.

The local code of practice on work with animals should be discussed with new staff along with safe systems of work to reduce allergen exposure.

8. What does the employee need to do?

In order to help protect their own health, employees and other groups such as students/researchers should co-operate with the employer by complying with all procedures designed to reduce exposure to animal allergens.

The first and most important action to take is to avoid the formation of airborne dust or aerosols wherever possible, e.g. don't dry sweep or brush when cleaning cages.

The following precautions should be adopted:

(a) always change clothes or put on appropriate overclothes on entry to animal units. Remove protective clothing on leaving the unit;

(b) make proper use of any control measures provided (e.g. ventilation, safety cabinets) as well as any personal protective equipment. Report any defects to your supervisor, as soon as they are noted;

(c) adopt high standards of personal hygiene, and make proper use of facilities for washing, showering, eating and drinking;

(d) when changing, always remove respiratory protection equipment (RPE) after any other protective clothing;

(e) store any personal protective equipment in the accommodation provided;
(f) do not eat, drink, smoke or write reports (except brief notes) in the animal unit where allergen contamination may exist. Always use the designated eating facilities;

(g) attend any health surveillance sessions as required by the employer; and

(h) report any symptoms of ALA, in confidence, to the UHS. Remember that in many cases it is possible to reduce the severity of symptoms by a combination of precautionary measures such as provision of RPE, use of safety cabinets, and, if necessary, limiting exposure to particular species or procedures.
Procedure for Animal Workers

Dept. Heads/DoE
identify Animal Workers
Notify

Director LAU updates
List of Animal Workers
Inform

University Health Service

Pre-Employment
Medical Check

Annual
Surveillance

Maintain Animal
Workers Register

Animal Worker
free of symptoms

Animal Worker
Diagnosed as
Allergic to Animals

Medication &
observation

Consult DofS to
determine appropriate
protection measures,
provide *P.P.E. and train
staff

Animal worker
suspected as
suffering
Occupational
Asthma

not confirmed

Government
Health Service to
confirm Asthma
confirmed

UHS/Registry/
HoD to
determine course
of action

*P.P.E. = Personal Protective Equipment