

Animals in the Classroom: Allergy and Asthma Considerations

Allergies and Asthma

Housing animals in a classroom can increase the risk of allergic reactions in susceptible students. Allergies are a leading cause of chronic disease in children under age 17. Approximately 15–20% of school pupils suffer from varying degrees of allergy. Pre-existing allergic disease can lead to the development of sensitivity to animal allergens. Any animal species can be the source of allergic reactions. Allergic reactions can include skin welts and hives, itchy eyes, nasal congestion, sneezing, wheezing, and more serious attacks of asthma.

Sources of Allergens from Classroom Animals

The primary sources of allergens from classroom animals appear to be urine and saliva. Animal dander has also been identified as a potential source, particularly in guinea pigs. Children can be exposed by directly handling the animals or by airborne particles of dust from bedding that contains animal urine. Handling animals to pet or play with them, breathing near an open cage, and being present during cage cleaning activities increases the opportunity for exposure to allergens.

Notification of Presence of Animals in the Classroom

Parents and students should be alerted prior to acquiring a classroom animal and be warned about the potential for exposure to animal allergens. Parental awareness is particularly important for students with asthma. In some cases, parents may want to discuss the presence of classroom animals with their child's physician.

Below are some ways to minimize the concentration of allergens present in the classroom.

- Permit children to interact with animals only under adult supervision.
- Do not consume food or beverages in an area where animal contact is possible.
- Teach children to handle animals gently and carefully to prevent accidental exposure from bites and scratches.
- Avoid having children hold animals on their clothing, where hair, dander, and urine may be a source of contact.
- Have everyone wash their hands carefully after touching the animals or their cages.
- Keep animal cages clean to reduce the concentration of urine and feces in the bedding.
- Do not clean cages in a way that generates aerosols during times when the classroom is occupied.
- Keep animals in a well-ventilated area of the classroom, where room exhaust will draw dust and aerosols away from occupied classroom areas.



- Keep classroom humidity levels high to reduce dry air conditions that increase the allergic potential in dust and bedding, but still allow for the classroom to be comfortable for everyone.
- Make sure that housing animals in the classroom is in compliance with all applicable state, local, and school system regulations.
- Report and document any animal-related injuries or evidence of a student allergic reaction to the appropriate school personnel and parents.

Resources on the Web

1. American Academy of Pediatrics, describing common allergies and what triggers them. <http://www.aap.org/healthtopics/asthma.cfm>
2. American Academy of Allergy Asthma & Immunology, Back to School with Allergies and Asthma. http://www.aaaai.org/patients/just4kids/back_to_school/key.htm
3. National Association of State Public Health Veterinarians, offering guidance on preventing disease and injuries associated with animals in public settings. <http://www.nasphv.org/Documents/AnimalsInPublicSettings.pdf>