

Occupational Health - Fact Sheet

IMMUNOSUPPRESSION AND WORKING WITH ANIMALS

Many common laboratory animals, especially rodents, may harbor infectious organisms that cause inapparent or asymptomatic infections in those animals. This means that they do not show outward signs of disease. Some of these potential disease-causing organisms are not considered a hazard to personnel with a fully functional immune system. However, some are opportunistic in nature, and can cause severe disease conditions in individuals who are immunosuppressed (a condition in which the immune system does not work as well as it does in a normal healthy individual).

Immunosuppression can be caused by a variety of things. Chemotherapy or radiation treatments for cancer or organ transplant patients, splenectomy, auto-immune diseases such as systemic lupus, cortico-steroid therapy, diabetes, chronic viral diseases such as Hepatitis B or Hepatitis C, and infection with the human immunodeficiency virus (HIV) are some noteworthy examples. It is important to recognize that there may be a significantly increased risk in working with animals in the laboratory for a person with an imperfectly functioning immune system. Immune compromised individuals are at a higher risk of illness and/or more serious side effects of illness caused by an infectious disease.

If you work with laboratory animals in research or teaching and you are, or become immunosuppressed, it is critical that you inform your supervisor, and seek the advice of a physician immediately. You may have a significantly increased risk for an occupationally acquired illness.

If you are immune compromised, it is important to ask for help in evaluating your risks. Know your workplace, the risk assessments that have been done for the research projects you are working on, the engineering controls in place (use of biosafety cabinets, fume hoods, or any other methods in use to minimize potential for exposure to animal allergens, infectious agents, and chemicals), administrative controls and work practices (washing hands after glove removal, sanitation of work surfaces, etc.), and personal protective equipment required and additional PPE that may be available upon request (enhanced respiratory protection, complete coverage Tyvek with attached hood and booties, etc.).