

I. Introduction

The Public Health Service Policy on Humane Care and Use of Laboratory Animals and the Animal Welfare Act require that research, teaching, and testing, which use animals be performed in such a way as to minimize discomfort, distress and pain consistent with sound research design. The UIC Animal Care Committee (ACC) must review the protocols submitted to determine that the research project conforms to the Institution's Letter of Assurance and meets the following requirements:

1. "Animal care and use shall be conducted with consideration for the health and comfort of the animals and in conformance with applicable laws and regulations."
2. "Research and testing procedures should be designed to avoid discomfort, distress, and pain."

The ACC recognizes that physical restraint may cause both physical and psychological distress. According to the Guide for the Care and Use of Laboratory Animals, prolonged physical restraint should be avoided unless there is a scientific or veterinary medical/health justification that has been approved by an Institutional Animal Care and Use Committee. If an animal will undergo prolonged restraint, training of the animal to the restraint device should be conducted to minimize the stress response and assure acclimation of the animal to the restraint device. Restraint devices are not considered normal methods of housing. As such, the ACC has adopted the following definitions, considerations, and guidelines regarding the use of physical restraint in animals.

A. Definition:

The ACC has defined prolonged physical restraint as:

The use of manual or mechanical means for periods of time greater than sixty minutes to limit some or all of an animal's normal movement for the purpose of experimental manipulation.

B. Considerations:

Restraint devices should be of suitable size, design, and operation to minimize discomfort or injury to an animal. The total time that an animal will have to be manually or mechanically restrained should be minimized. If this time is to exceed sixty minutes, methods for animal acclimation to the restraint device or activity must be defined. Each protocol for animal usage utilizing physical restraint methods in excess of sixty minutes will undergo an individual assessment during the veterinary pre-review process. This assessment will evaluate the respective protocol on a case-by-case basis to determine the level of ACC review. The assessment will consider, at minimum: species of animal, length of restraint, degree of restraint, restraint device, length of acclimation, potential for injury, etc.

Less restrictive systems that do not substantially limit an animal's mobility, such as tether systems are not considered prolonged physical restraint, and will be considered separately.

II. Institutional Guidelines

1. If an animal must undergo **physical restraint for 60 minutes to 12 hours** then the method(s) and procedure(s) of physical restraint should be described in Form A, item 8g and should include the following information:
 - i. A justification of the use of physical restraint in the context of the research objective(s).
 - ii. The duration of restraint, which should be the minimum required to accomplish the research objective(s).
 - iii. A description of the method and duration of time needed for training or acclimation to the

- equipment and personnel.
- iv. A description of monitoring methods (direct or indirect observation) and veterinary care if lesions or illnesses associated with restraint are observed.
 - v. A description of endpoints for temporary or permanent removal from restraint method(s).
 - vi. The ACC reserves the right to require additional information and/or scientific justification for restraint procedures lasting less than 12 hours based upon the species of animal, length of restraint, degree of restraint, restraint device, length of acclimation, potential for injury, etc.
2. If an animal must undergo **physical restraint for greater than 12 hours** then the method(s) and procedure(s) of physical restraint should address items i.-v. above in Form A, item 8g and Form B, item 8. In addition, in Form B, item 8 should include the following information:
- i. Scientific or veterinary medical justification for the restraint period in excess of 12 hours.
 - ii. A description of the program to allow the animal one continuous hour of unrestrained activity every 12 hours unless precluded for scientific or veterinary medical/health reasons.
 - iii. A description of a veterinary care program to observe animals on a periodic basis while undergoing prolonged restraint.
 - iv. An assurance that the requested restraint period is for the shortest period of time possible.
3. If an animal is housed in a **tether system** then the methods and procedures must be described in Form A, item 8g and should include the following information:
- The duration of housing in a tether system or stanchion, which should be the minimum required to accomplish the research objective(s).
- i. A description of monitoring methods (direct or indirect observation) and veterinary care if lesions or illnesses associated with restraint are observed.
 - ii. A description of the method and duration of time needed for training or acclimation to the equipment and personnel.

References:

- *Guidelines for the Care and Use of Mammals in Neuroscience and Behavioral Research*. National Research Council. The National Academies Press, Washington D.C., 2003.
- *Guide for the Care and Use of Laboratory Animals*. National Academy Press, Washington, D.C., 1996.
- *Public Health Service Policy on Humane Care and Use of Laboratory Animals*. Reprinted 2002.
- Animal Welfare Act, Animal and Plant Health Inspection Service, USDA, 1986.
- Animal Care Policies, Animal and Plant Health Inspection Service, USDA, 1997.