Position Statement

Handling and Physical Restraint of Research Animals

Physical restraint of animals may be necessary for experimental, husbandry or veterinary medical purposes, or to ensure personnel safety. There should be veterinary consultation for any proposed restraint that is more than momentary. As restraint may induce physiological and behavioral changes, the method of restraint should be chosen to minimize distress to the animal. Any restraint device should be designed to ensure the safety of the animal and it should be appropriately maintained. Alternatives to physical restraint such as positive reinforcement or other benign operant conditioning/training for a procedure, or chemical restraint where human or animal safety is a concern, should be considered.

Handling and Short-Term Physical Restraint

Animal handling and short-term restraint have the potential to cause distress for animals that may affect research results, pose risks for handler safety and health, and afford opportunities for animal escape or injury. Even short-term restraint and handling may induce anatomical, physiological, and behavioral changes, and can influence phenotype in some species such as mice.

Selection of restraint and handling methods can also impact experimental data. Species-specific variables that contribute to distress should be taken into consideration. For example, variables that have been found to influence levels of distress in mice include degree of immobilization, acclimation, and frequency of handling.

Non-chemical alternatives to physical restraint (e.g., positive reinforcement, less aversive handling methods) should be preferentially considered. If restraint and handling are necessary, methods should be chosen to minimize both duration and distress to the animal.

Prolonged Physical Restraint

Prolonged restraint must adhere to applicable regulatory requirements as outlined for nonhuman primates (§ 3.81(d)) and marine mammal transport in the Animal Welfare Act Regulations (3.113 (b)). The Guide for the Care and Use of Laboratory Animals outlines requirements and recommendations for other vertebrate species.

Prolonged physical restraint should be avoided unless it is scientifically justified and approved by the Institutional Animal Care and Use Committee (IACUC). As the duration of restraint increases, a concomitant increase in attention should be directed to alternatives to restraint, the health and well-being of the animal, and endpoint criteria for restraint. Acclimation of the animal
to restraint devices, combined with positive reinforcement, should be considered when the animal may be repeatedly restrained or restrained for an extended period of time. Considerations for acclimation or positive reinforcement should consider research goals as well as animal welfare.

**Animal Care and Use Programs**

Animal care and use programs should establish guidance describing appropriate procedures for handling, short-term restraint, and long-term restraint, as well as ensure that animal care and research staff are properly trained. Guidance for long-term restraint should address appropriate restraint procedures, duration of restraint, and frequency of monitoring. Monitoring should be sufficient to ensure the welfare of the animals during the restraint period. Criteria should also be developed for the temporary or permanent removal of an animal from a study involving restraint if the animal does not adapt or acquires behavioral abnormalities as a result of restraint. IACUCs are encouraged to keep apprised of advances and alternatives for animal restraint and to utilize pilot studies or seek the advice of *ad hoc* consultants when evaluating novel or unfamiliar restraint methods.

IACUCs may also wish to periodically evaluate their institutional practices for acclimation, positive reinforcement, observational and monitoring procedures, and associated performance standards.

**Selected Resources**

1. American Veterinary Medical Association Policy: Physical restraint of animals
   [https://www.avma.org/resources-tools/avma-policies/physical-restraint-animals](https://www.avma.org/resources-tools/avma-policies/physical-restraint-animals).


Approved by the ASLAP Board of Directors March 2023