

CULATR Policy on the Restraint of Conscious Animals

1. Purpose

This policy has been designed to establish standards and ensure that animals restrained for research purposes are restrained in a way that does not adversely affect animal welfare. This policy has been developed to ensure that HKU complies with the Guide for the Care and Use of Laboratory Animals, 8th Edition, and the Hong Kong Code of Practice for the Care and Use of Animals for Experimental Purposes.

2. Scope

This policy applies to all laboratories utilising laboratory animals at HKU

3. Definitions

3.1 Physical Restraint: Physical restraint is the use of manual or mechanical means to limit some or all of an animal's normal movement for the purpose of examination, collection of samples, drug administration, therapy, or experimental manipulation.

3.2 Prolonged restraint is defined as a physical restraint of a conscious animal lasting longer than 15 minutes

3.3 The following circumstances are NOT considered prolonged restraint:

- Holding an animal by hand or in a device (e.g., rodent restrainer, pig sling) for a few moments in order to collect blood or perform an injection
- Use of sedation or anaesthesia to limit animal movements during imaging procedures such as CT or MRI.
- Walking a goat on a halter or transporting a rabbit in a standard carrier

4. Policy

4.1 Prolonged restraint should be avoided unless it is essential for achieving research objectives.

4.2 Justification for prolonged restraint and consideration of alternatives must be provided in the protocol/ amendment, and approval by the CULATR must be obtained before implementing such practices.

4.3 Restraint devices should be suitable in size, design, and operation to minimize discomfort, pain, distress, and the potential for injury to the animal and the research staff.

4.4 Prolonged restraint, should be avoided unless it is essential for achieving research objectives and is specifically approved by the CULATR

4.5 Protocols including physical restraints must include provisions for Animals that do not adapt to necessary restraint systems to be removed from the study.

4.6 When restraint devices are used, they should be specifically designed to accomplish research goals that are impossible or impractical to accomplish by other means or to prevent injury to animals or personnel.

4.7 When prolonged restraint is necessary; methods to acclimatise the animals to the restraining method should be performed so as to minimise distress to the animals.

5. Protocol Requirements

Protocols including the use of Physical Restraints must include the following information:

- Justification as to why the restraint is necessary, and why alternative methods such as positive reinforcement or conditioning are not feasible;
- A description of all restraint devices used in the protocol;
- The estimated duration the animals will remain in the restraint device;
- Methods or acclimation procedures used to minimize animal distress;
- Monitoring parameters for restrained animals such as monitoring frequency and signs of distressed animals;
- Criteria for removal of the animal from the study based on their inability to adapt to the restraint device;
- Potential adverse effects or events which may be caused by the restraint device;

6. Responsible Parties

6.1 Principal Investigators are responsible for: preparing and submitting applications; making modifications in applications in order secure CULATR approval; ensuring adherence to approved protocols; ensuring that all personnel have completed required training; and reporting any adverse events to the CULATR.

6.2 The CULATR and the Animal Welfare Team are responsible for overseeing implementation of and ensuring compliance with this policy.

6.3 The Attending Veterinarian has been delegated authority and responsibility for ensuring compliance with this policy.

7. CULATR Appendices for Restraint of Conscious Animals

Appendices are provided as CULATR suggestions or recommendations. Deviation from the attached appendices shall require CULATR approval.

8. References

1. Adapted from the UCSF Office of Ethics & Compliance Policy on Restraint of Conscious Animals, 2013
2. Boston University: IACUC: Prolonged Physical Restraint, Rodents policy <https://www.bu.edu/researchsupport/forms-policies/prolonged-physical-restraint-rodents/>
3. UCI Office of Research, IACUC Policy on Prolonged Physical Restraint of Animals <https://research.uci.edu/compliance/animalcare-use/research-policies-and-guidance/restraint-policy.html>
4. *The Guide for the Care and Use of Laboratory Animals, 8th Edition*, 2013
5. The Hong Kong Code of Practice for the Care and Use of Animals for Experimental Purposes, 2004.

Appendix A: Restraint Guidelines: CULATR Approved: June 2020

Important guidelines for restraint of any duration

- Restraint devices should not be considered a normal method of housing, and must be justified in the animal use protocol.
- Restraint devices should not be used simply as a convenience in handling or managing animals.
- When restraint devices are used, they should be specifically designed to accomplish research goals that are impossible or impractical to accomplish by other means or to prevent injury to animals or personnel.
- The period of restraint should be the minimum required to accomplish the research objectives.
- Animals to be placed in restraint devices should be given training (with positive reinforcement) to adapt to the equipment and personnel.
- Provision should be made for observation of the animal at appropriate intervals, as determined by the CULATR.
- Animals that fail to adapt should be removed from the study.
- Veterinary care must be provided if lesions or illnesses associated with restraint are observed. The presence of lesions, illness, or severe behavioural change often necessitates temporary or permanent removal of the animal from restraint.
- The purpose of the restraint and its duration should be clearly explained to personnel involved with the study.