

<b>IACUC Policy #:</b>	<b>590</b>
<b>Policy Title:</b>	<b><i>Animal Physical Restraint Policy</i></b>
<b>Date Approved:</b>	<b>May 28, 2003</b>
<b>Date Reviewed:</b>	<b>November 15<sup>th</sup>, 2023</b>
<b>Who must know:</b>	<b>Principal investigators, personnel, and researchers manipulating and restraining animals</b>

**Purpose:**

This policy has been designed to establish standards for and ensure that conscious vertebrate animals or cephalopods restrained for research, teaching, and/or testing purposes are restrained in a way that does not adversely affect animal welfare. Further, this policy has been developed to assure that Southern Illinois University Carbondale complies with the *Guide for the Care and Use of Animals*, the *Guide for the Care and Use of Agricultural Animals*, the *Animal Welfare Act*, and other generally accepted practices. Adherence to this policy is mandatory unless a specific exception has been approved by the IACUC.

The IACUC recognizes that the use of restraint may be necessary to ensure human safety, animal welfare, and/or to achieve research, teaching, and/or testing objectives. Justification for prolonged restraint and consideration of alternatives must be provided in the protocol, amendment, or Standard Operating Procedures (SOP).

**Definitions:**

Researchers: in addition to principal investigators and other personnel, the term researcher also includes volunteers and/or students approved to complete research in the designated protocol.

Natural Position: is a position in which an animal normally engages in (e.g., any normal postural position for that species). Therefore, an “unnatural position” is one constrained by the anatomy of the animal or one in which the animal would not typically engage.

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 (the *Guide*, 2011).

Prolonged Restraint: is the use of a physical restraint of a non-sedated animal for 30 minutes or longer in a natural position, 15 minutes or longer in an unnatural position, or any duration for any position (natural or unnatural) in which a body part is fixed.

- A “fixed body part” is defined as any body part that is restrained such that normal rotational movement of that body part is not possible.
- Prolonged physical restraint of research animals may warrant placement of animals in “Animal Use Category E” (procedures that cause distress where no method is available which would alleviate these effects without interfering with the experimental, research, testing, or teaching results) unless evidence is provided by the investigator that the restraint does not cause distress.
- The following circumstances are NOT considered prolonged restraint:
  - Reasonable restraint of wild species during field studies performed in accordance with generally acceptable practices (for example see Fair et al., 2023; Sikes et al., 2016) is not considered prolonged restraint.

- Restraint of agricultural animals for routine procedures performed in accordance with the *Guide for the Care and Use of Agricultural Animals in Research and Teaching* (Tucker et al., 2020, p. 26) is not considered prolonged restraint. The period of restraint should be the minimum required to accomplish the objective. Provisions must be made to ensure agricultural animals are not unduly subjected to repeated restraint. Extended restraint periods exceeding normal agricultural practice for the animal species require adequate justification. All other provisions in the “guidelines” of this policy still apply, including the provision for inclusion of restraint description and period within the approved IACUC protocol.

**Policy:**

All physical restraint methods proposed for animals must be described on the Animal Use Protocol form and approved by the IACUC before use. Proposals involving prolonged physical restraint of animals must also include a referenced scientific justification describing why it is necessary to perform prolonged physical restraint in order to meet the objectives of the proposed study.

Guidelines for physically restraining animals

The following should be considered by the Principal Investigator in planning or evaluating procedures that involved the physical restraint of animals:

- Restraint devices should not be considered as normal methods 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. Restraint devices should be 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, testing, and/or teaching objectives. Prolonged restraint should be avoided unless it is essential and is approved by the IACUC.
- Unless scientifically justified in the animal use protocol, animals to be placed in restraint devices should be trained to adapt to the equipment. Animals that fail to adapt should be removed from the study.
- Provisions should be made for observation of the animal at appropriate intervals during the restraint period, as determined by the IACUC considering best practices justified by PI in their protocol.
- Restraint devices should be suitable in size, design, and operation to minimize discomfort or injury to the animal. Veterinary care must be provided if lesions or illnesses associated with restraint are observed and reported to the Attending Veterinarian (or designee). The presence of lesions, illness, or severe behavioral change may necessitate temporary or permanent removal of the animal from restraint.
- Less restrictive systems that do not limit an animal's ability to make normal postural adjustments should be used when compatible with protocol objectives.
- Personnel using restraint procedures must be trained on the specific equipment, procedures, duration, and monitoring. The purpose of the restraint and its duration should be clearly explained to the personnel involved.

- Alternatives to physical restraint should be considered. Search alternatives listed in the justification section of the protocol must include the phrase “prolonged restraint” or similar terms.

### References and Resources:

Animal Welfare Regulations, 9 C.F.R §1 (2023). <https://www.ecfr.gov/current/title-9/chapter-1/subchapter-A>

Chapman, Stella J. (2017) *Safe Handling and Restraint of Animals: A Comprehensive Guide*. John Wiley & Sons.

Fair, J. M., Paul, E., Jones, J., Bies, L. (Eds.). (2023). *Guidelines to the use of wild birds in research* (4th ed.). The Ornithological Council. <http://www.BIRDNET.org>

National Research Council (2011). *The guide for the care and use of laboratory animals* (8th ed.). National Academies Press. <https://grants.nih.gov/grants/olaw/guide-for-the-care-and-use-of-laboratory-animals.pdf>

National Research Council (2003). *Guidelines for the care and use of mammals in neuroscience and behavioral research*. National Academies Press. [https://www.ncbi.nlm.nih.gov/books/NBK43327/pdf/Bookshelf\\_NBK43327.pdf](https://www.ncbi.nlm.nih.gov/books/NBK43327/pdf/Bookshelf_NBK43327.pdf)

Sikes, R. S. (2016). 2016 guidelines for the American Society of Mammalogies or the use of wild animals in research. *Journal of Mammalogy*, 97(3), 663–688. <https://doi.org/10.1093/jmammal/gyw078>

Tucker, C. B., MacNeil, M. D., Webster, A. B. (Eds.). (2020). *The guide for the care and use of agricultural animals in research and teaching* (4th ed.). American Society of Animal Science. <https://www.asas.org/services/ag-guide>