



# INDIANA UNIVERSITY

Office of the Vice President for Research  
Office of Research Compliance

## Institutional Animal Care and Use Committee (IACUC) Office of Research Compliance (ORC)

# Use and Maintenance of Guillotines and Other Equipment Used for Decapitation

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**Effective:** 9-25-2017  
**Last Updated:** --

**Responsible University Office:**  
Fred H. Cate  
Vice President for Research

**Policy Owner:**  
Bloomington Institutional Animal Care and  
Use Committee (BIACUC)

**Policy Contact:**  
IACUC Administrator

## Policy Statement

PHS Policy requires IACUCs to use the recommendations of the *AVMA Guidelines for the Euthanasia of Animals: 2013 Edition*, which states: ***This method is acceptable with conditions if performed correctly, and it may be used in research settings when its use is required by the experimental design and approved by the IACUC. Decapitation is justified for studies where undamaged and uncontaminated brain tissue is required. The equipment used to perform decapitation must be maintained in good working order and serviced on a regular basis to ensure sharpness of blades. The use of plastic cones to restrain animals appears to reduce distress from handling, minimizes the chance of injury to personnel, and improves positioning of the animal. Those responsible for the use of this method must ensure that personnel who***

*perform decapitation have been properly trained to do so and are monitored for competence.* (p. 39)

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## Reason for Policy

The IACUC requires that individuals using guillotines or scissors for decapitation are well-versed in the correct use and maintenance of guillotines in order to ensure proper function and humane euthanasia. The guillotine action should be smooth with no perceptible binding or resistance, and the blade must be rust-free, sharp, and decapitate with minimum force. The IACUC recommends the following technique to assess sharpness of a guillotine: a guillotine is sharp enough if it will cut a thick rubber band, without dragging it between the blades and sticking.

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## Procedures

1. Principal Investigator (PI) is responsible for describing use of the guillotine or scissors in the animal use protocol for decapitation and ensuring that anyone using a guillotine is properly trained.
2. The use of a restrainer (e.g., Decapicones®) is recommended except for neonatal rodents unless the individual using the guillotine has extensive experience that has been described in the approved protocol application.
3. Each decapitation will be performed in a room that is isolated from all other rodents and free of distractions for the individual performing the procedure. A minimum number of animals should be brought into the decapitation room at a time while decapitations are being conducted.
4. Animal users can decapitate all rodents, amphibians, fish, and reptiles with a commercial guillotine. Alternatively, scientists can decapitate neonatal rodents and small amphibians/fish/small non-venomous reptiles with dedicated sharp scissors or razor/scalpel blades. (Regardless of the method, amphibians, fish, and reptiles must also be pithed following decapitation.) If scissors are used for rodent decapitation, they must be clean, rust-free, and sharpened.
5. Personnel using a guillotine should make sure that it is rust-free, operates smoothly, and is clean prior to use; problems should be reported to the PI as soon as possible. Guillotines should also be periodically lubricated.
6. All animals must be sedated or anesthetized before decapitation. Exceptions, based on scientific considerations, must be justified to, and approved by, the IACUC.
7. After use, the entire guillotine should be rinsed under cold water to remove blood and tissue and gross contamination. After removing gross contamination, the unit should then be thoroughly disinfected. Before using the guillotine or scissors, a 95% alcohol rinse will evaporate and reduce the need to hand dry the equipment.
8. The frequency of **guillotine sharpening** will depend on the animal species involved and volume of use; however, **the guillotine should be checked for sharpness before each use**. The responsibility for sharpening the guillotine rests with the PI.
9. Methods for sharpening guillotines can be obtained from the guillotine manufacturer.

## Sanctions

Failure to comply with IACUC policies may result in noncompliance reports to the Institutional Official, the Office of Laboratory Animal Welfare (OLAW), the U. S. Department of Agriculture (USDA), and/or the suspension of animal use privileges. In addition, the availability of sponsored research funds may be affected when an investigator is found to be in violation of these policies.

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## Contacts

<b>Subject</b>	<b>Contact</b>	<b>Phone</b>	<b>Email</b>
Veterinary Concerns	LAR Veterinarians	855-2356	lar@indiana.edu
Policy	IACUC Administrator	855-5138	biacuc@indiana.edu

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## References

1. United States Department of Agriculture, 9 CFR Parts 1, 2 and 3.
2. PHS Policy on the Care and Use of Laboratory Animals, OPRR, 1996.
3. OLAW Website: <http://grants.nih.gov/grants/olaw/>
4. AAALAC Accreditation Guidelines: <http://www.aaalac.org>
5. 8<sup>th</sup> Edition: The Guide for the Care and Use of Laboratory Animals, 2011.
6. AVMA Guidelines for the Euthanasia of Animals: 2013 Edition.
7. Holson, RR. Euthanasia by decapitation: Evidence ta this technique produces prompt, painless unconsciousness in laboratory rodents. *Neurotoxicology and Teratology*, 14(4): 253-257, 1992.
8. University of California, Berkley ACUC Policy and Guidelines for Guillotine Use and Maintenance 11/20/15.
9. Florida State University Policy for Use and Maintenance of Guillotines and other Equipment Used for Decapitation 8/13.
10. Wayne State University IACUC Policy on Use of Guillotines 11/14.