

**North Carolina State
University IACUC Standard
Operating Procedure**
(Approved October 16, 2014)
Procedure for Decapitation as a Means of Euthanasia for Mice and Rats

The following is an NCSU IACUC Standard Operating Procedure regarding decapitation of rodents used in research and teaching. Training assistance is available from veterinary staff via the University Attending Veterinarian: Dr. Gabriel McKeon 919-513-6638 or gpmckeon@ncsu.edu).

Statement

Decapitation as a sole means of euthanasia is acceptable only for neonatal mice and rats 5 days of age or younger. The use of decapitation for euthanasia of neonatal mice and rats between 5 and 7 days of age must be performed only after the administration of prior anesthesia or carbon dioxide narcosis. All rodents above the age of 7 days must conform to the standard AVMA guidelines for euthanasia (<https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>).

Any further request to decapitate mice or rats older than 7 days must be scientifically justified within the animal use protocol and approved by the IACUC.

Maintenance

When using a guillotine, the blade must be sharpened and maintained according to manufacturer's instructions. An updated log should be kept to document such maintenance. Clean and disinfect all blades immediately after use.

In instances where no manufacturer recommendations are available, blade maintenance should be carried out based on blade performance. An example of a method for testing sharpness is to use a freshly euthanized rodent carcass. If the blade is noted to be dull, it should be either replaced or sharpened by a professional sharpening service. Blades that are replaced should be disposed of in a dedicated sharps container.

The use of appropriately sized scissors is acceptable, provided that the scissors are well-maintained, sharp, and cleaned prior to use.

In all instances of the use of decapitation, personnel performing the procedure must be appropriately trained to prevent self injury and to minimize pain and distress to the research animal.