

IACUC Policy on Rodent Toe Clipping

10/13/15 MW

IACUC Approved: 11/19/15	Other Approvals:
Revised and Approved: 1/21/16MW 2/17/16 MW	

Per the *Guide for the Care and Use of Laboratory Animals*: "As a method of identification of small rodents, toe-clipping should be used only when no other individual identification method is feasible. It may be the preferred method for neonatal mice up to 7 days of age as it appears to have few adverse effects on behavior and well-being at this age, especially if toe clipping and genotyping can be combined. Under all circumstances aseptic practices should be followed. Use of anesthesia or analgesia should be commensurate with the age of the animals."¹

The following procedures MUST be followed^{2,3,4}:

- Justify the procedure to the IACUC in the submitted animal care and use protocol and identifying what alternative means of identification have first been considered
- Provide, in writing, in the submitted animal care and use protocol a scientific explanation of why toe clipping is necessary. This should include a discussion of why alternative methods of identification are unsatisfactory
- Adequately describe the procedure in the protocol
- Certification of technique by the AVS Veterinary staff must occur before performing independently
- Mice must not be older than 7 days of age and toes must not be webbed.
- No more than 1 toe per paw may be clipped
 - Avoid clipping digits/toes on fore paws if possible
 - DO NOT clip the 1st digit/toe (i.e. thumb) on either fore paw
 - Only remove the 3rd phalanx (i.e. last bone of a digit); in other words, amputate at the joint between the 2nd and 3rd bones/phalanges
- Gently scruff a pup at its neck. They should naturally open their arms and paws.
- Toe clipping is not considered a surgical procedure, therefore the following modifications to aseptic technique are acceptable:
 - Skin preparation: Assure the skin is free of debris; if not, then alcohol may be used to wipe down the foot.
- Instrument preparation: All instruments must be clean and free of visible debris. Instruments that have been exposed to autoclave, glass bead sterilizer, or chemical disinfectants are preferred; however sterile instruments are not required (this is not a surgical procedure).
- Use very sharp scissors
 - Scissors must be checked for sharpness prior to use
- Scissors must be disinfected between animals
- Monitor animals continuously until bleeding has stopped
 - Bleeding may be stopped using a piece of gauze with gentle pressure between finger tips
- AVS veterinary staff must be contacted promptly if toe does not heal properly or if the animal cannot ambulate normally following the procedure
- An appropriate numbering system must be used

References:

1. Guide for the Care and Use of Laboratory Animals, National Research Council, National Academy Press, 2011, page 75.
2. University of Iowa, OAR IACUC, IACUC Policy: Mouse Toe Clipping, Reviewed 4/14/15, (<http://animal.research.uiowa.edu/iacuc-policy-mouse-toe-clipping>)
3. McGregor, Grant. UCI IACUC, Standard Operating Procedures for Distal toe clipping, (<http://www.research.uci.edu/forms/docs/iacuc/SOP-toe-clip.pdf>)
4. Duke University, Animal Care and Use Policy: GENOTYPING AND IDENTIFICATION (Including Tail and Toe Clipping), Reviewed 5/28/15, (http://vetmed.duhs.duke.edu/PDF/Policies/Animal%20Use%20Policies/policy_on_identification_of_animals.pdf)