

## UCAR Policy on Toe Clipping

Toe-clipping is one of several permanent methods of identification used on mice, rats and birds. It involves the removal of the phalangeal bone from the most distal joint to the tip of certain toes with a sharp instrument, according to a numbering code. The toe-clipping procedure is considered potentially painful and may impair an animal's ability to grip and groom.

The Guide for the Care and Use of Laboratory Animals, Eighth Edition states "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 (Castelhano-Carlos et al. 2010; Schaefer et al. 2010), especially if toe clipping and genotyping can be combined. "

The University Committee on Animal Resources (UCAR) recognizes that under certain circumstances, it may be necessary to use toe clipping as a method of identification in mice, rats and birds. In accordance with the Guide, UCAR has established the following toe-clip policy:

1. Strong justification for the toe-clipping procedure must be provided in the protocol and approved by UCAR. The justification should include a discussion of alternate identification methods (e.g. ear punch, ear tag, tattoo, leg bands in birds) that the investigator has considered and the reason why such methods are unsatisfactory. For example, an investigator may justify toe clippings if his/her research requires permanent marking of rodents genotyped at a young age. Toe-clipping can also be considered a refinement if genetic material for analysis can be obtained at the same time as the rodents are identified, therefore making it unnecessary to perform tail biopsies for tissue sampling. For birds, toe-clipping in combination with daily records identifies the bird and its hatch day until the chick is large enough to be banded at post hatch day (PHD) 10 to 15. Banding sooner can injure the chick or result in a loss of the band.
2. In the event that an acceptable alternative method of identification becomes available, the investigator should consider the feasibility of using the new method as a replacement for toe-clipping.
3. Toe-clipping is only approved under the following conditions:
  - The procedure **MUST** be performed no later than seven (7) days of age in mice and rats, and no later than three (3) days post hatching in birds.
  - No more than one toe per foot and no more than two feet per individual animal may be toe clipped.
  - Remove debris (e.g., feces) from feet prior to clipping toes.
  - Use sharp scissors or a blade sanitized with 70% ethanol or antiseptic solution (Rescue©, povidone iodine, chlorhexidine)
  - Cut through the joint closest to the end of the toe (distal end of P2)
  - If bleeding is observed, apply gauze with gentle pressure or styptic powder to the cut digit(s) for hemostasis.
  - The DCM veterinary staff is available to discuss alternative identification methods as well as provide toe-clip training. Please contact a veterinarian at X5-2651.

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