Toe clipping is the removal of the first bone of the toe, corresponding to a predetermined numbering code, as a means of permanent identification of small rodents and/or for a source of tissue for genotyping. When performed in very young rodents, toe clipping is considered to cause minimal pain and/or distress.

To perform toe clipping, the following procedures are required:

- Toe clipping must be performed within the first seven days after birth.
- As toe clipping can alter the gait or weight-bearing ability of a rodent's hind limbs, toe clipping is limited to one digit per extremity.
- Instruments used for toe clipping must be sterilized before use and cleaned and disinfected between animals.
- Topical anesthetics or analgesics may be applied. Researchers should consult with a UAC veterinarian prior to toe clipping for advice on the need for topical anesthetics or analgesics.

In animals over seven days of age, there is significantly more pain caused by this procedure and its use in these animals will only be approved by the IACUC if:

- The PI provides rigorous scientific justification as to why other, less painful means of identification in small rodents (ear-notching, ear tags, microchips, tattooing, permanent markers, etc.) are not feasible.
- Appropriate anesthesia and/or analgesia is part of the procedure. UAC veterinary staff should be consulted for assistance with selection of agents.

REFERENCES:


JUSTIFICATION:

The Guide for the Care and Use of Laboratory Animal (8th 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, 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.”