



Institutional Animal Care and Use Committee Guidelines and Policies

EUTHANASIA OF NEONATAL RODENTS

The AVMA panel does not provide specific guidelines for the euthanasia of neonatal or fetal rodents and thus the IACUC has developed the following:

Neonatal rodents under 14 days of age

These animals are unusually resistant to hypoxia and to the inhalant anesthetics often used as euthanizing agents in adult rodents (i.e., CO₂). Thus, inhalant agents alone should not be used in neonatal rodents. Inhalants may be used to induce unconsciousness, but this must be followed by some other method of ensuring death. The IACUC recommends the following euthanasia methods for neonatal rodents:

- Overdose of an injectable anesthetic (e.g. pentobarbital), given IP.
- Rapid decapitation with sharp scissors. Anesthesia may be induced prior to decapitation by inhalant or injectable anesthetics (or hypothermia if pups are less than 8 days old), but is not required.
- Cervical dislocation
- If CO₂ or inhalant anesthetics are used, the pups should be exposed for at least 20 minutes and a secondary means of ensuring death (such as decapitation) must be employed.

Note that immersion in liquid nitrogen and immersion or perfusion with chemical fixatives may be used only if preceded by anesthesia.

Rodents older than 14 days: Follow euthanasia guidelines for adults.

Fetal stages: Euthanasia of the mother or removal of the fetus from an anesthetized mother will ensure death of the fetus due to loss of blood and oxygen supply. No further measures are required. Some investigators may elect to add rapid decapitation for later stage fetu.