



**THE UNIVERSITY OF TOLEDO  
INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE**

SUBJECT: Euthanasia of Neonatal Rodents

DATE: January 19, 2022

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**Guidelines for Euthanasia of Neonatal Rodents**

Neonatal rodents (mouse, rat, and hamster pups up to 10 days of age) are extremely resistant to hypoxia resulting in a prolonged time to unconsciousness with CO<sub>2</sub> is used as euthanasia. For this reason, the American Veterinary Medical Association (AVMA) does not endorse CO<sub>2</sub> overdose as a method of euthanasia for neonatal pups. Acceptable methods include overdose with (non-inhaled) chemical anesthetics, decapitation with surgical scissors, or cervical dislocation. Fetuses and altricial neonates (less than 5 days old) may be euthanized through rapid freezing in liquid nitrogen.

References

1. AVMA Guidelines for the Euthanasia of Animals, 2020 Edition.  
<https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>
2. Pritchett K, et al. Euthanasia of neonatal rats with carbon dioxide. *JAALAS*, 4823-27, 2009.
3. Guidelines for the Euthanasia of Rodent Fetuses and Neonates, ARAC Guidelines 04/10/13.  
[http://oacu.od.nih.gov/ARAC/documents/Rodent\\_Euthanasia\\_Pup.pdf](http://oacu.od.nih.gov/ARAC/documents/Rodent_Euthanasia_Pup.pdf)