



ANIMAL CARE &  
USE PROGRAM  
UNIVERSITY OF MICHIGAN

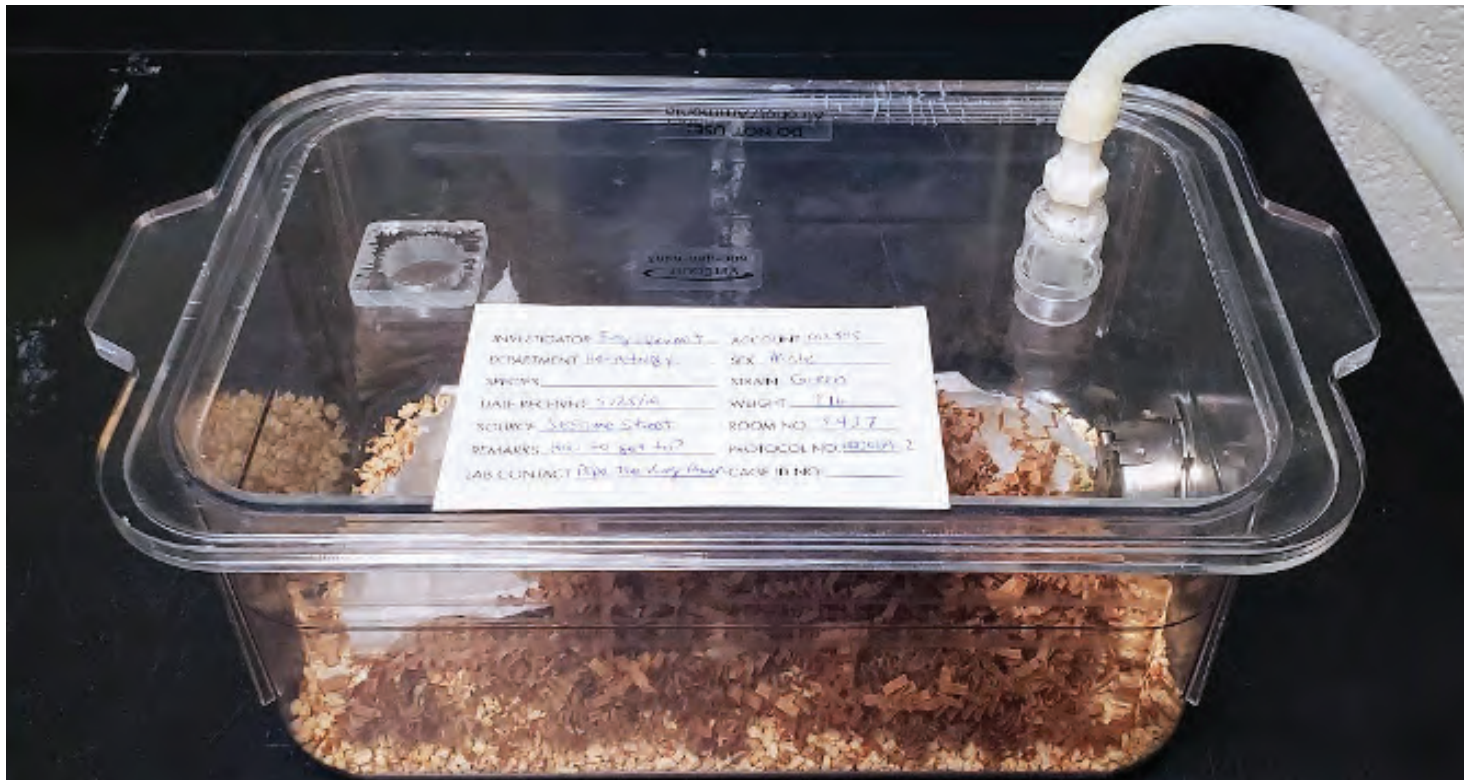
# RODENT EUTHANASIA INSTRUCTIONS

## Building Supplied CO<sub>2</sub>

For more detailed step-by-step instructions, please refer to the  
*Guidelines for Rodent Euthanasia Procedures for Investigative Personnel*  
([animalcare.umich.edu/rodent-euth](http://animalcare.umich.edu/rodent-euth))

# CAGES MUST BE LABELED WITH:

PI Name  
Protocol Number  
Shortcode  
Lab Contact Information



Until euthanasia is confirmed by  
secondary, physical means



# REMEMBER, IF CONSOLIDATING MICE OR RATS FOR EUTHANASIA:



**Do not consolidate rodents**  
except for mice or rats



**Follow standard housing densities** when  
consolidating rodents (except mice) for euthanasia



**No more than** 10 mice in a standard mouse (#1) cage  
or 25 mice in a large mouse / small rat (#3) cage



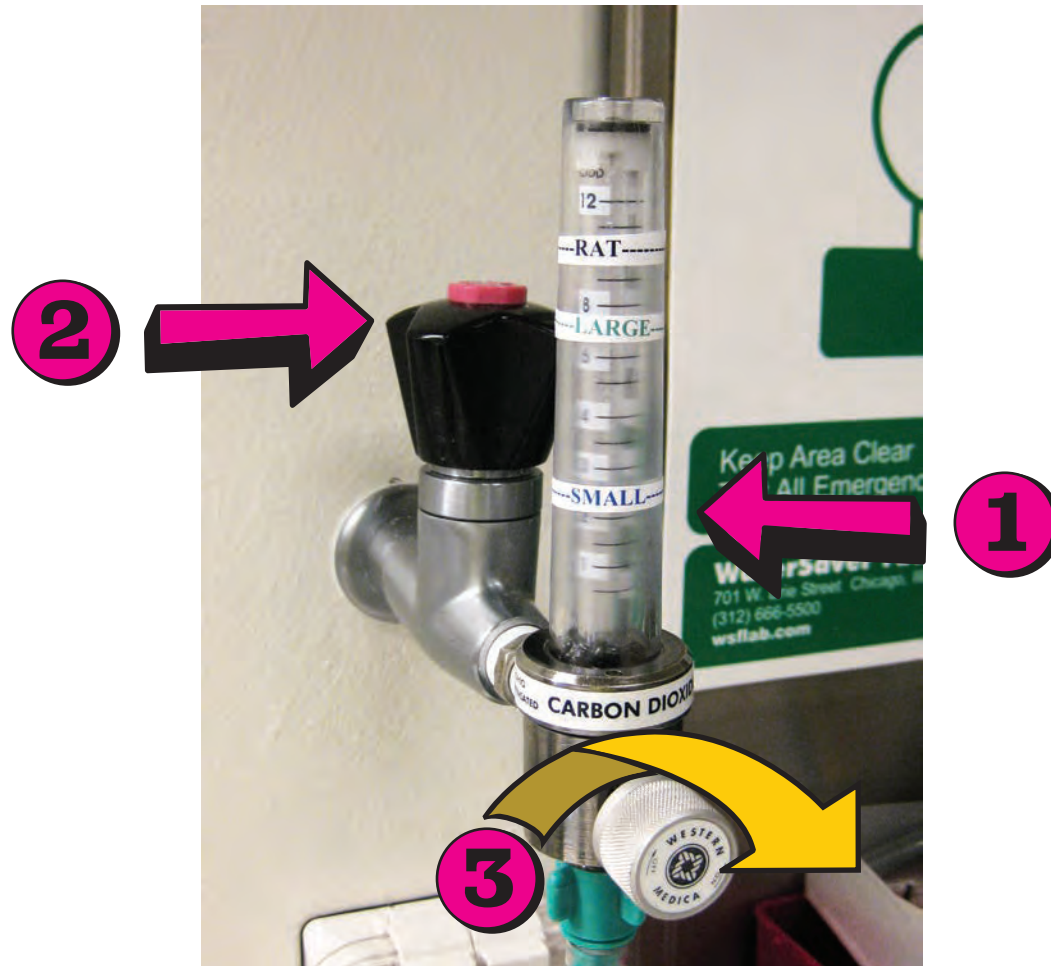
Provide ample space for animals to move and assume  
normal postures if using your own euthanizing chamber



Start the procedure **no more than 10 minutes**  
after the animals have been consolidated



# STEP 01

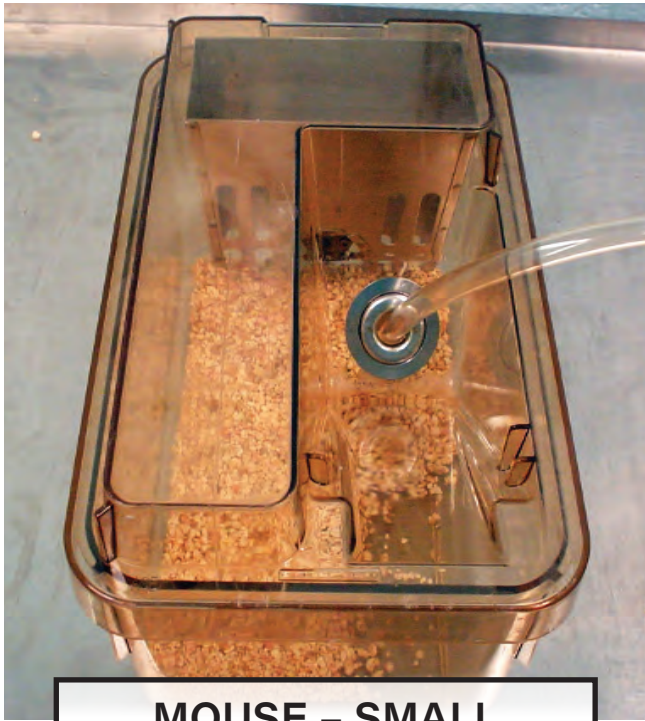


The flow meter (1) should be at zero

The supply valve (2) and flow meter (3) should be turned off (all the way clockwise)



# STEP 02



**MOUSE - SMALL**



**RAT CAGE**

Insert the CO<sub>2</sub> hose through the water bottle grommet on the cage lid

**OR**

through the lixithole in the back of the cage



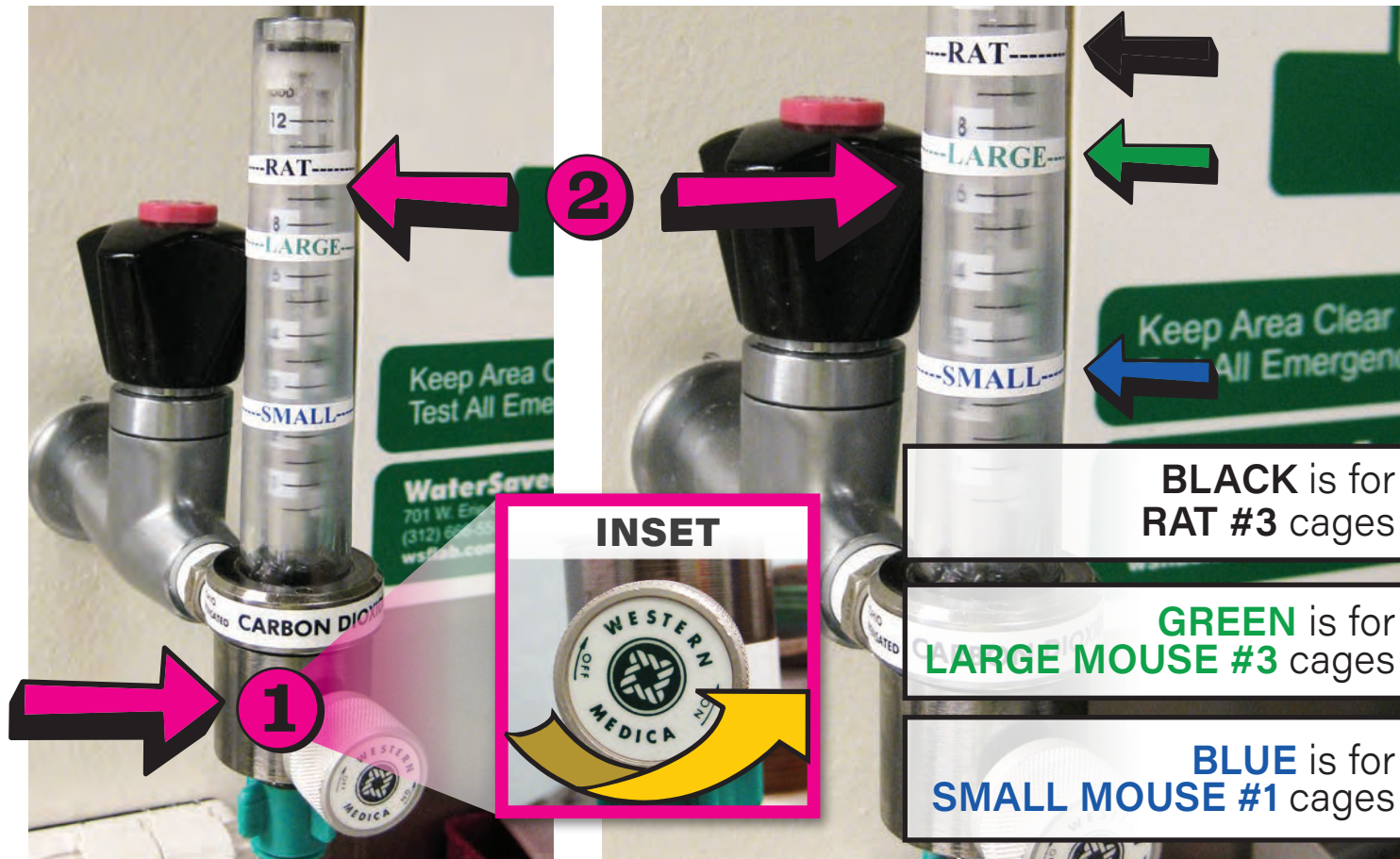


STEP  
03

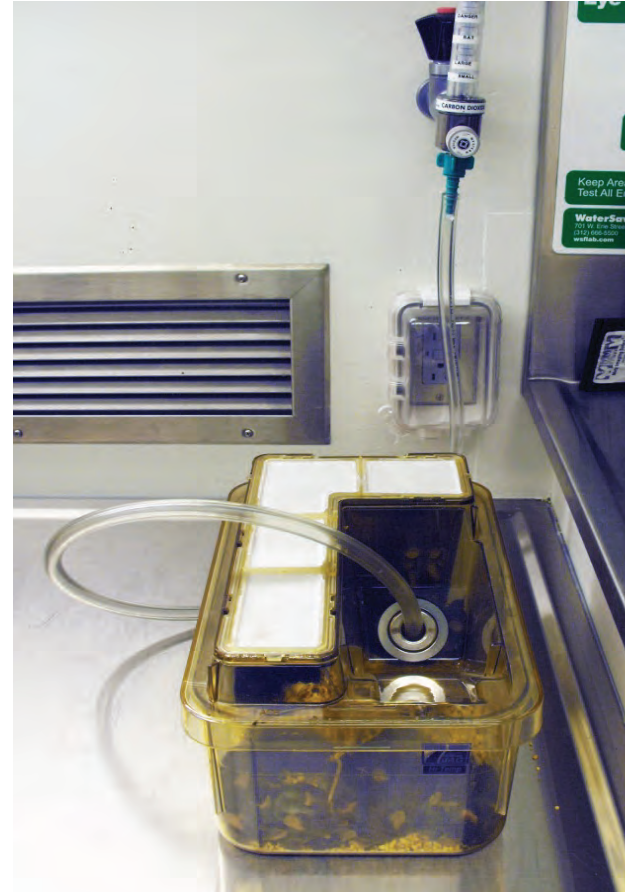
Turn supply valve (1) to the left or counterclockwise to turn on the CO<sub>2</sub>



# STEP 04



Adjust CO<sub>2</sub> flow into the cage by turning regulator knob (1) slowly  
Until the gauge (floating black ball) (2) reaches the desired color line



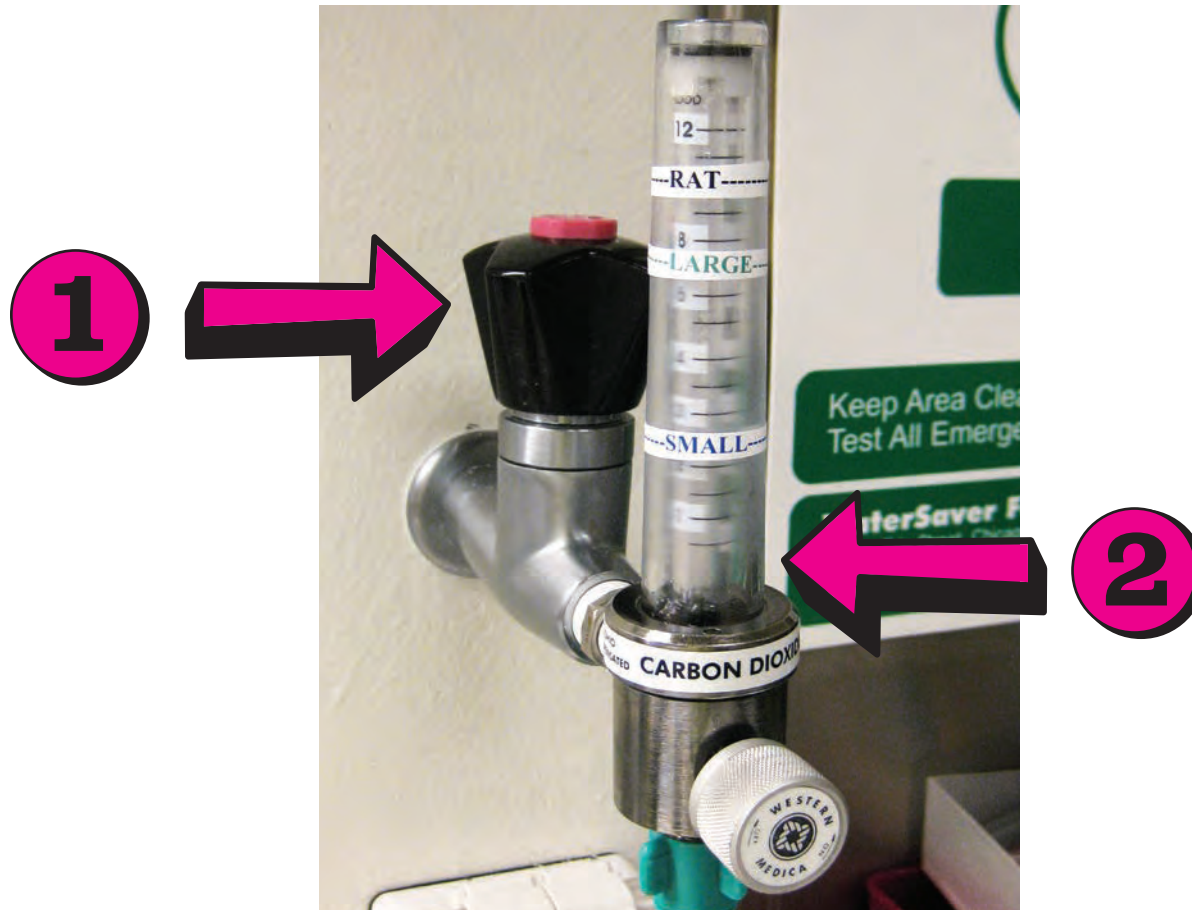
# STEP 05

Allow gas to flow until animals are no longer moving or breathing

You **MUST** remain with your animals until death is confirmed by a secondary means





STEP  
06

Turn off the CO<sub>2</sub> supply valve (1)

Note that gauge (2)  
is falling back to zero now



**1****INSET**see  
picture inset

Gauge should now be set at zero  
with no more CO<sub>2</sub> flowing

After gauges reach zero ensure flow meter valve (**1**)  
is shut off by turning it clockwise until snug

Do **NOT** overtighten

**STEP  
07**

STEP  
08

Check your protocol for approved  
secondary euthanasia method

**ALWAYS** perform a secondary, physical  
method to ensure euthanasia is effective



STEP  
09

or



DATE: \_\_\_\_\_

PI NAME: \_\_\_\_\_

INDIVIDUAL: \_\_\_\_\_

After you have confirmed death  
by a secondary, physical means

Put carcass in a glove or opaque bag

Label with PI name, date, and name  
of individual conducting euthanasia







# STEP 10

Place in appropriate bin  
within carcass cooler



# QUESTIONS?

Contact your ULAM Faculty Veterinarian and/or  
your facility's ULAM Husbandry Supervisor

Bookmark and review the  
rodent euthanasia guidelines on Animal Care A-Z  
([az.research.umich.edu/node/1016](https://az.research.umich.edu/node/1016))

We want to acknowledge that the ethical cost of using animals in research may cause some individuals emotional distress, especially if they perform euthanasia as part of their occupational/research duties.

If you think you may be struggling with what is commonly referred to as "compassion fatigue," **there are resources that can help.**

Visit [animalcare.umich.edu/cap](https://animalcare.umich.edu/cap) or email [compassionawareness@umich.edu](mailto:compassionawareness@umich.edu)  
to learn more about our Compassion Awareness Project.



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