How Many Mice/Rats Can I Put In The Cage

**Mice:** If you are grouping animals you should not put more than 8-12 if they are weanlings and no more than 8 adults. If you can’t see the floor and the animals can’t move around, you have too many in the cage. Weanling don’t have a problem with grouping nor do most females, but any adult males regardless of the strain will become aggressive. The best thing is to not combine cages unless you absolutely have to.

**Rats:** No more than 4-5 depending on size, age, or weight if adults. No more that 10-12 if weanlings (less than 40 days of age).
Steps for Using Carbon Dioxide for Euthanasia

Place animals in appropriate chamber
Place top securely on cage
Turn CO$_2$ tank on
Introduce 100% carbon dioxide at a rate of 30-70% of the chamber volume per minute
Adjust flow meter to appropriate setting for cage size according to chart located above tank
Allow time for animal(s) to become unconscious and for all motion to cease
Carbon Dioxide Method

Do Not pre-fill the chamber
Use correct setting
Consult wall chart for proper settings
Remember to turn off gas at main tank when finished
Carbon Dioxide Method

When placing mouse cages INSIDE the large cage to euthanize, be sure to set flow meter for mice to **5-7 liters per minute**. **Rats** 8 up to 12 liters/min

- **Static micro-isolator**
  - small cage **3-4** liters per min.

- **Small mouse IVC**
  - inside large cage **5-7** liters per min.

- **Large mouse IVC**
  - inside large cage **5-7** liters per min. **Rats** 8 up to 12 liter/min
Flow Rates for Carbon Dioxide

It is strongly recommended that animals stay in their home cage whenever possible. It is less stressful for the animals. All sizes of mouse cages fit in the large cage. Be sure to leave the wire bar lid in place.

<table>
<thead>
<tr>
<th>Cage Type</th>
<th>Cage Size (W x L x H)</th>
<th>Flow Rate per IACUC Policy 103</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (Mouse cage)</td>
<td>7.5” x 11.75” x 5”</td>
<td>For mice 3-4 liters/min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For Rats 8 up to 12 liters/min</td>
</tr>
<tr>
<td>Large (Rat cage)</td>
<td>10.5” x 19” x 8”</td>
<td>For mice 5-7 liters/min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For rats regardless of cage size 8 Up to 12 liters/min</td>
</tr>
</tbody>
</table>

You must remain with the animal during the procedure.
Carbon Dioxide Method

Maintain gas flow for 1 minute after apparent death

Turn off CO₂ tank and allow animals to remain in unopened chamber undisturbed for several minutes to ensure that death has occurred

Ensure death by secondary method (cervical dislocation, pneumo-thorax, or decapitation for neonates is required)

_The secondary method to ensure death is an IACUC requirement when using CO₂ is your method of euthanasia._

**Required Secondary Methods to Ensure Death When Using Carbon Dioxide**

- Decapitation (pups)
- Thoracotomy: open the chest to prevent breathing *
- Exsanguination (bleed out)
- Cervical dislocation

* When collecting tissue or major organs, the opening of the major body cavity and subsequent thoracotomy (disruption of the diaphragm) can serve as your secondary method.
Proper Handling of Rodents Post Euthanasia

Step 1. Properly label the body bags with PI Name or Protocol Number, Date, *(time optional)*, and your Initials.

Step 2. Place animals in bag and tie the opening.

Step 3. Place securely tied and labeled bag in refrigerator or cooler.