Physical restraint is the use of manual or mechanical means to limit some or all of an animal’s normal movement for the purpose of examination, collection of samples, drug administration, therapy, or experimental manipulation. Animals are restrained for brief periods, usually minutes, in many research applications (The Guide, pg 29). Such restraint may cause distress and/or pain, if not carried out properly and habituation techniques should be used to reduce any level of discomfort.

The severity or duration of the pain or distress, or the use of anesthesia or analgesia to alleviate pain or distress may result in animals being placed in different USDA pain and distress categories. Please note that the UMass Boston IACUC perceives:

<table>
<thead>
<tr>
<th>Type</th>
<th>Duration</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term restraint</td>
<td>less than 30 minutes (≤30)</td>
<td>Category B, C, or D</td>
</tr>
<tr>
<td>Prolonged restraint</td>
<td>greater than 30 minutes (&gt;30)</td>
<td>Category E</td>
</tr>
</tbody>
</table>

The following (excerpt from *The Guide* pg 29-30) should be considered by the Principal Investigator and IACUC in planning or evaluating experimental procedures that involve the physical restraint of animals:

- Restraint devices should not be considered a normal method of housing, and must be justified in the animal use protocol.
- Restraint devices should not be used simply as a convenience in handling or managing animals.
- Alternatives to physical restraint should be considered.
- The period of restraint should be the minimum required to accomplish the research objectives.
- Animals that fail to adapt to the restraint should be removed from the study.
- Provision should be made for observation of the animal at appropriate intervals, as determined by the IACUC.
- Veterinary care must be provided if lesions or illnesses associated with restraint are observed. The presence of lesions, illness, or severe behavioral change (e.g., self-injurious behavior(s)) often necessitates the temporary or permanent removal of the animal from restraint.
- The purpose of the restraint and its duration should be clearly explained to personnel involved with the study.