

ACCLIMATION AND STABILIZATION GUIDELINES

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1. Background

Stress associated with transportation has widespread effects on physiological systems in laboratory animals, including changes in the cardiovascular, endocrine, immune, central nervous, and reproductive systems. Although short-lived, these changes can confound research if animals are utilized before homeostasis is restored and physiological measures return to normal. Therefore, some period of acclimatization following transportation is recommended. Elevations from baseline physiological measure generally return to normal within 1 to 7 days, however, animals that are young, severely stressed, and/or express stress-sensitive genotypes may show altered physiological measures for several weeks. Per the *Guide for the Care and Use of Laboratory Animals* (page 111):

Newly received animals should be given a period for physiologic, behavioral, and nutritional acclimation before their use. The length of time for acclimation will depend on the type and duration of animal transportation, the species, and the intended use of the animals. For animals not typically housed in research settings, consideration should be given to providing means to assist with their acclimation. The need for an acclimation period has been demonstrated in mice, rats, guinea pigs, nonhuman primates, and goats, and time for acclimation is likely important for other species as well. Animals newly received into the animal facilities should be given a period of acclimation to ensure physiologic, psychological, and nutritional stabilization before their use.

2. Guidelines

- All rodents should have an acclimation period of a minimum of 72 hours (3 days) prior to use for experimental purposes unless justified in an ACUC approved Animal Use Protocol (AUP).
- All USDA-covered species (e.g., rabbits, cats, non-human primates, guinea pigs) should have a minimum of 7 days of acclimation before being used for experimental purposes unless justified in an ACUC approved Animal Use Protocol.

- It is recommended that any animal being exposed to a novel object be acclimated to the item prior to the collection of data. This could include any behavioral equipment, restraint devices, or handling procedure to ensure that physiologic parameters are not grossly affected.
- Protocols that require prolonged animal restraint should describe the duration of confinement, acclimation procedures, monitoring procedures, criteria for removing animals that do not adapt or acclimate, and provision of veterinary care for animals with adverse clinical consequences. Please refer to ACUC Guidelines for [Physical Restraint of Unanesthetized Animals](#) for additional information.

3. Exceptions

The Animal Care and Use Committee (ACUC) may grant exceptions to the acclimation period if such exceptions are scientifically justified and outlined in the Animal Use Protocol (AUP).

The Attending Veterinarian (AV) or Office for Laboratory Animal Care (OLAC) clinical veterinarian may shorten or waive the acclimation period on a case-by-case basis. The ACUC may shorten or waive the acclimation period when justified in the AUP.

4. References

- 8th edition of [The Guide for the Care and Use of Laboratory Animals](#), pg 111. (Obernier and Baldwin 2006; Capitanio et al. 2006; Conour et al. 2006; Kagira et al. 2007; Landi et al. 1982; Prasad et al. 1978; Sanhoury et al. 1989; Tuli et al. 1995).
- Conour LA, Murray KA, Brown MJ. *Preparation of Animals for Research—Issues to Consider for Rodents and Rabbits*. ILAR J (2006) 47 (4): 283-293. doi: 10.1093/ilar.47.4.283
- Obernier, Jennifer A., Baldwin, Ransom L. *Establishing an Appropriate Period of Acclimatization Following Transportation of Laboratory Animals* ILARJournalNational-2006-47-364
<http://pfeifer.phas.ubc.ca/refbase/files/Obernier-ILARJournalNational-2006-47-364.pdf>
- UCLA Office of Research Oversight Acclimation Policy
<http://ora.research.ucla.edu/OARO/Pages/ARC-policies/acclimation.aspx>
- UC Berkeley ACUC Guideline on [Physical Restraint of Unanesthetized Animals](#).