



Institutional Animal Care & Use Committee

Food and Water Restriction

Background: Behavioral research often requires that an animal perform a task for which it receives food or fluid reward. This situation is not unlike conditions in the wild, in which animals must forage, travel distances, solve problems, or otherwise work to obtain food and water. Performing a task for rewards may also be behaviorally enriching for laboratory animals, especially nonhuman primates. However, a fundamental concern with studies that may involve food or water restriction is that animals are maintained in a healthy state and that they do not experience pain or distress. This document provides an overview of the issues and explains the IACUC's policy regarding food or water restriction.

The IACUC referenced the following documents in setting this policy:

- [Guide for the Care and Use of Laboratory Animals \(Eighth Edition\)](#). Washington DC: National Academy Press.
- NRC (2003). [Guidelines for the Care and Use of Mammals in Neurosciences and Behavioral Research](#). Washington DC: National Academy Press.
- [The federal Animal Welfare Regulations](#) (Code of Federal Regulations, Title 9).
- Toth, LA and Gardiner TW. [Food and Water Restriction Protocols: Physiological and Behavioral Considerations](#). Contemporary Topics, 39(6). pg 9-17; 2000.

Definitions (Guide pg.30):

- Scheduled access: the animal consumes as much as desired at regular intervals.
- Restriction: the total volume of food or fluid consumed is strictly monitored and controlled.
- Fasting for surgical procedures: usually a period of less than 12 hours. This is not considered restriction and the following guidelines do not apply.

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Policy:

1. Individual animals may vary in their physiologic response to food or fluid restriction. Therefore it is imperative that animals be closely monitored on a daily basis to ensure that they are healthy, adapting normally and consume sufficient food and water to maintain their health status. Monitoring and if necessary, early intervention are the most important objectives of this policy.
2. It is the obligation of the investigator to demonstrate to the IACUC that food or water restriction is the only effective way to accomplish the scientific goals of the study. The objective when these studies are being planned and executed is to use the least restriction necessary to achieve scientific objective while maintaining animal well-being
3. It is the investigator's ongoing obligation to continue to attempt methods of positive reinforcement that do not involve food or water restriction and to use restriction only when other methods fail.
4. The use of restriction to motivate behavior must be specifically discussed, adequately justified, and approved in each protocol in which it is used.
5. Criteria for monitoring animal health must be defined in the protocol (i.e. body weight, urine and fecal output, urine specific gravity, etc.). Criteria must be defined for temporary or permanent removal of an animal from the experimental protocol.
6. Investigators must maintain water consumption and food intake records in a form acceptable to the IACUC and readily available for inspection.
7. At the discretion of the IACUC, Investigators may be required to file updates or reports regarding the status of the animals on the restriction protocol.
8. At the discretion of the veterinarian, a particular animal's food or water ration must be increased if:
 - a. The animal becomes ill or requires medical treatment.

- b. The animal exhibits weight loss of greater than 10-15% of its initial body weight.
- c. The animal shows evidence of clinical dehydration.
- d. A young animal fails to show reasonable weight increase during a time when it should be growing.
- e. The animal undergoes any procedure requiring anesthesia.
- f. Under any other circumstance deemed necessary by the veterinarian.