



POLICY: Food or Water Restriction

Objective:	To describe procedures for food or water restriction
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I. Purpose

Food and fluid restriction or deprivation may be required for the conduct of some IACUC approved research protocols. The process may entail limiting access to food or fluid resources, or decreasing the amount of time that the food or fluids are available. The Guide for the Care and Use of Laboratory Animals states that it is important to “use the least restriction necessary to achieve the scientific objective while maintaining animal well-being.”

II. Definition

For the purposes of this policy, food or water deprivation is defined as **any** restriction in access to food or water (including fasting) that must be described in the animal protocol and approved by the IACUC.

III. Items for Consideration in Protocol Development and Discussion with the Attending Veterinarian

1. Food and water consumption are interdependent, but species differ in their circadian rhythms, other patterns of drinking, and their response to food restriction. Continuous access to water typically is provided under food control regimens, but requirements of the species and the scientific objectives may require different patterns of access.
2. Conversely, water-deprived animals often have non-restricted access to food, but investigators should be aware that most food consumption occurs only when water is available. Water should be available long enough to maintain sufficient food intake.
3. In planning and reviewing animal use protocols that propose to regulate access to food or fluid, the following should be considered by the Principal Investigator and the IACUC:
 - a. What type of food or fluid regulation is most appropriate for meeting the specific goals of the experiment?
 - b. Do alternative procedures exist that would facilitate the generation of the desired behavior or condition?
 - c. What is the proposed schedule for monitoring animal health and what, specifically, will you monitor in relation to food or fluid restriction? Animals on prolonged food or fluid regulation should be weighed several times per week beginning before regulation or restriction. Records must be kept (see guidelines below).
4. Questions regarding food or fluid restriction should be addressed to the Attending Veterinarian.

IV. Guidelines

1. The PI is required to consult with the Attending Veterinarian before starting a food/fluid restriction study.

2. Planned duration of food/fluid regulation/restriction must be specified, scientifically justified in the IACUC protocol, and approved by the IACUC.
3. The investigator must use the least possible restriction to achieve their specified scientific objective.
4. Endpoints should be specified in advance on the approved protocol. Examples of specific endpoints include (but are not limited to):
 - a. Loss of greater than 20% of the body weight compared to a pre-study baseline.
 - b. In addition to other parameters, loss of body condition as evidenced by:
 - segmentation of vertebral column is evident
 - dorsal pelvic bones are readily palpable (see SOP entitled Body Condition Scoring).
 - c. Inability to perform normal behaviors such as walking, feeding, or drinking.
5. Proposed food and/or water restriction, including amendments to previously approved protocols, must be reviewed and approved by the IACUC during a convened meeting (i.e., using **Full Committee Review** procedures).
6. The PI is required to notify the Vivarium of the study so that the animals can be placed “on report” to ensure that they are monitored regularly by the Vivarium staff.
7. Animals on feeding/watering schedules maintained by PIs or their staff, must complete a monitoring chart (see Appendix 1). Animals must be examined and the chart accurately completed and initialed to indicate that the animals are cared for each day. The chart must be left in a conspicuous place in the animal holding room and vivarium staff must be informed of this schedule. The chart must include:
 - a. Feed and Water quantities – both what is offered and what remains.
 - b. Parameters such as body weight, hydration status, body condition.
 - c. Copies of weight and monitoring charts employed during the study should be available in the Vivarium for review at all times.
8. If for any reason, the animals cannot be fed/watered by the research staff, the Vivarium staff must be informed immediately.
9. Rodents on food/fluid restriction or special diet must be identified by a colored card on their cage(s).
10. At the end of the testing period, the remaining animals must be returned to free access of food/water or be euthanized.

V. Reference

National Research Council. *Guide for the Care and Use of Laboratory Animals: Eighth Edition*. Washington, DC: The National Academies Press, 2011. Pp 30-31.

Revision History

Approved August 27, 2012

Revised April 27, 2015

Re-approved March 26, 2018; November 23, 2020

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