

Food and Fluid Restriction Policy

Background

Animal Welfare regulations and the *Guide for the Care and Use of Laboratory Animals* mandate that all animals be provided food that is uncontaminated, wholesome, palatable, and of sufficient quantity and nutritive value to maintain the normal condition and weight of the animal. The diet must be appropriate for the individual animal's age and condition. Potable, uncontaminated water must be provided in sufficient quantity continuously or as often as necessary to ensure health and wellbeing of the animal. Specific nutrient requirements for different animal species are published by the National Academy of Sciences and are referenced in the *Guide*. Food or water restriction refers to provision of food or water at less than the daily requirements or at less than the normally required frequencies or duration for that species.

Food or fluid restriction often is used in behavioral procedures where food or fluid is to be used to establish/maintain a trained pattern of behavior. In the case of such conditioned-response research protocols, use of highly preferred food or fluid (e.g., sweetened cereal or sugar water) as positive reinforcement, instead of restriction, is recommended. However, when restriction is employed for behavior modification purposes, then at least the minimum quantities of food and fluid should be available to provide for normal development of young animals and maintain long-term wellbeing of all animals.

Familiarity with the needs of the species is essential to planning an appropriate food or fluid restriction protocol. Consultation with someone who is experienced in using food or fluid restriction procedures with the species in question can be useful if you do not have the experience. See also chapter 4 in *Methods and Welfare Considerations in Behavioral Research with Animals* (NIH, 2002; https://www.animallaw.info/sites/default/files/Welfare_Considerations_in_Behavioral_Reserach.pdf).

This policy does not cover dietary control for husbandry or clinical purposes.

Policy

1. Food and/or water restriction for research purposes needs to be scientifically justified in an approved IACUC Protocol.
2. For rodents, food restriction is defined as any restriction of 12 hours duration or longer. Food restriction in other species will be evaluated on a case-by-case basis, based on physiologic parameters of the species (age, weight, duration of restriction, type of restriction, etc.).
3. Water restriction guidelines can be found in the Animal Welfare Act which states if “water is not continually available, it must be offered to them as often as necessary to ensure their health and well-being, but no less than twice daily for at least one hour at a time, unless otherwise required by the attending veterinarian”.
4. The protocol must include physical criteria for temporary or permanent removal of the animal from the study (e.g., body weight, urine output, fecal output, BUN, HCT, food intake, fluid intake, etc.)
5. When such restrictions are employed, a program must be established to monitor each

animal's weight, behavior, and general state of health. Body weight should be recorded at least twice weekly.

6. The least restriction that will achieve the scientific objective should be used.