

IACUC Guidelines on Food or Fluid Restriction

Last Review: 4/2022

Revision History:

Food or Fluid Restriction:

Food – Animals should be fed palatable, uncontaminated diets that meet their nutritional and behavioral needs at least daily, or according to their particular requirements, unless the protocol in which they are being used requires otherwise

Water – Animals should have access to potable, uncontaminated drinking water according to their particular requirement

Food and Fluid Regulation - Regulation of food or fluid intake may be required for the conduct of some physiological, neuroscience, and behavioral research protocols. The regulation process may entail *scheduled* access to food or fluid sources, so an animal consumes as much as desired at regular intervals, or *restriction*, in which the total volume of food or fluid consumed is strictly monitored and controlled. The objective when these studies are being planned and executed should be to use the least restriction necessary to achieve the scientific objective while maintaining animal well-being. In the case of operant conditioning research protocols, use of a highly preferred food or fluid as positive reinforcement, instead of restriction, is recommended.

The development of animal protocols that involve the use of food or fluid regulation requires the evaluation of three factors:

- the necessary level of regulation,
- potential adverse consequences of regulation,
- methods for assessing the health and well-being of the animals.

In addition, the following factors influence the amount of food or fluid restriction that can be safely used in a specific protocol: the species, strain, or stock, gender, and age of the animals; thermoregulatory demand; type of housing; time of feeding, nutritive value, and fiber content of the diet; and proper experimental manipulation.

The animals should be closely monitored to ensure that food and fluid intake meets their nutritional needs. The “*Guide*” states that, “Body weights should be recorded at least weekly and more often for animals requiring great restriction. Written records should be maintained for each animal to document daily food and fluid consumption, hydration status, and any behavioral and clinical changes used as criteria for temporary or permanent removal of an animal from a protocol”.

Criterion that the IACUC will use for protocol review:

- The least restriction that will achieve the scientific objective should be used.
- Criteria must be defined (such as weight loss or state of hydration) for temporary or permanent removal of an animal from the study.
- A monitoring program should be established and should include records of the following:
 - Documentation that daily food and fluid consumption and hydration status. Note: May be met by daily observation of the animals that is recorded.
 - Body weights recorded at least weekly however it is recommended to record body weights daily
 - Any behavioral and/or clinical changes that are to be used as criteria for temporary or permanent removal of an animal from a protocol.
 - Special consideration will be given to food/fluid restriction for extended periods of one month or longer