



University of Michigan Policy On Food and Water Restriction or Manipulation in Animals

While food and water restriction can be an important and commonly used research tool in many experimental studies, this restriction may adversely affect an animal's well-being. In keeping within federal and university guidelines, and policies to minimize pain, distress and discomfort of animals used in research, experiments requiring food or water restriction or manipulation require prior review and approval by the IACUC.

Restriction is defined as a limitation on *ad libitum* access to food or water. Described in terms of either amount of food or water provided on a daily basis (volume or weight) or amount of time daily that an animal is given access to food and/or water.

Manipulation is defined as a change in the composition of the normally offered food or water. This is usually accomplished by altering the diet composition or consistency by adding or deleting nutrients to create an animal model or adding compounds/medications to food or water for animal consumption.

Based on the guidelines below, animals that do not have access to food or water for at least the periods outlined below are defined as restricted:

Food Access

- 18 hours daily: Rodents, Birds
- Twice daily: Non-human Primates
- Once daily: All Other Mammals

Water Access

- Ad libitum: Birds
- 18 hours daily: Rodents, Rabbits
- One hour, twice daily: All Other Mammals

Immature animals and those adults who are not healthy will be evaluated on a case-by-case basis.

Upon review of the IACUC, non-ruminant animals deprived of food or water for longer than 24 hours, or ruminant animals deprived of food or water for longer than 48 hours, will be considered "prolonged restriction" and placed in Humane Use Category 7.

- I. **Food and water provisions to animals outside of the recommendations above constitute restriction and must adhere to the following guidelines:**
 - a. Food and/or fluid restriction that deviates from the guidelines above should be described and scientifically justified in the IACUC application.
 - b. The investigator (PI) is responsible for assuring that specially formulated diets are nutritionally adequate and palatable, unless otherwise scientifically justified.
 - c. The PI must describe the monitoring that will be performed and its frequency to ensure animal health.



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- d. The shortest period of restriction to achieve the scientific objective should be used.
- e. Animals should be acclimated gradually to new restriction paradigms.
- f. Endpoints should be established so that if an animal's health is threatened, a plan is in place to remove the animal from the food or fluid restriction.
- g. Pre-anesthetic fasting is not recommended for rodents or rabbits.

Related Documents: [ULAM Guidelines for Food and Water Restriction or Manipulation in Laboratory Animals](#)