

## Restraint and Restriction

### Item 2 – Food or Water Restriction

Food restriction is defined as food deprivation for longer than 24 hours (for monogastric animals) or 48 hours (for ruminants). When experimental situations require food or fluid restriction, minimum quantities of food and fluid should be made available to provide for development of young animals and to maintain long-term well-being of the animals.

Water restriction is defined as water deprivation for longer than 12 hours.

Restriction for research purposes needs to be scientifically justified and a program established to monitor physiologic or behavioral parameters, including criteria for removal of the animal from the experiment (such as weight loss or hydration state). A time limit with maximum duration of restriction should also be outlined. In no case should the animal's body weight fall below 80% of its pre-restriction value. If the study involves young animals, age- and sex-matched animals on unrestricted food and water should be used as body weight controls.

Precautions that should be used in cases of fluid restriction to avoid dehydration include daily recording of fluid intake and recording of body weight at least three times per week - or more often for smaller animals, such as rodents. Any animal presenting with clinical evidence of dehydration will be removed from the study. Special attention should be given to ensuring that animals consume a balanced diet, as food consumption may decrease with fluid restriction. In the case of conditioned-response experiments, use of a highly preferred food or fluid as a positive reinforcement, instead of restriction is recommended. Protocols proposing water or food restriction may be approved by the Institutional Animal Care and Use Committee (IACUC), if scientifically justified by the investigator. Each animal use protocol proposing the use of water or food restriction will be considered and reviewed by the IACUC on a case-by-case basis.

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