1. Diet Modifications
   A. Can be in the form of increased or decreased total amount of food fed, limiting the time food or liquid available, or an increase or decrease in an element of the diet.

2. Food or Fluid Restriction Definitions
   A. Standard for Food Intake: "Animals should be fed palatable, non-contaminated, and nutritionally adequate food daily or according to their particular requirements…." (P. 38, "Guide for the Care and Use of Laboratory Animals," National Research Council, 1996.)
   B. Standard for Water Intake: "Ordinarily, animals should have access to potable, uncontaminated drinking water according to their particular requirements." (P. 40, "Guide for the Care and Use of Laboratory Animals," National Research Council, 1996.)
   C. Restriction is any deviation from the standards for food and water intake.
   D. Deprivation is total withholding of either food or fluid.
   E. Fasting for surgical procedures is usually for a short period time to allow emptying of the upper GI tract. This period of time varies according to species. This is not considered deprivation and the following guidelines below do not apply.

3. Food or Fluid Restriction Policy and Guidelines
   A. The IACUC endorses as policy the following excerpt from page 12 of the 1996 National Research Council "Guide for the Care and Use of Laboratory Animals."

   "When experimental situations require food or fluid restriction, at least minimal quantities of food and fluid should be available to provide for development of young animals and to maintain long-term well-being of all animals. Restriction for research purposes should be scientifically justified, and a program should be established to monitor physiologic or behavioral indexes, including criteria (such as weight loss or state of hydration) for temporary or permanent removal of an animal from the experimental protocol (Van Sluyters and Oberdorfer 1991). Restriction is typically measured as a percentage of the ad libitum or normal daily intake or as percentage change in an animal's body weight.

   Precautions that should be used in cases of fluid restriction to avoid acute or chronic dehydration include daily recording of fluid intake and recording of body weight at least once a week (NIH 1990)-or more often, as might be needed for small animals, such as
rodents. Special attention should be given to ensuring that animals consume a suitably balanced diet (NYAS 1988) because food consumption might decrease with fluid restriction. The least restriction that will achieve the scientific objective should be used."

B. The plan for appropriate periodic weighing, starting with a pre-experimental weight, and monitoring of animal health must be included in the protocol.

4. **When food deprivation is planned:**
   A. Additional provisions for close monitoring of weight at time intervals appropriate to the species must be included in the protocol; and
   B. It must be specified that when there are weight losses greater than 20% in most mammals (taking into account the normal anticipated growth for that animal), the deprivation must be terminated or the animal must be euthanized. Non-mammals have a less defined end point so should be evaluated on a case by case basis with the help of someone who specializes in the species.