



Policy on Anesthesia in Research and Instruction Animals

The mitigation of pain and distress in animals being used in research and instruction is a moral obligation, and agrees with the 3 Rs' Refinement principle. General anesthetics are drugs that produce unconsciousness, and local anesthetics block pain perception from the treated location. Some anesthetics also act as analgesics. The use of appropriate anesthesia to mitigate pain and distress is required unless an exception, with scientific justification, is approved by the IACUC.

This policy serves to ensure the humane use of animals, increase the probability of a successful anesthetic outcome, and assure adherence to animal welfare principles outlined by the USDA Animal Welfare Act Regulations and the Public Health Service Policy.

Regulatory bodies and experience require that any procedure that would be considered painful or distressful in a human, must be considered painful/distressful to animals. Use of local and/or general anesthetics are among the most common and effective ways to mitigate surgical/procedural pain perception. However, anesthetics can adversely affect physiologic processes and require judicious administration, rigorous monitoring of the vital signs, and provision of indicated supportive care during and after the procedure.

The use of anesthesia **must** be planned in advance, in consultation with a laboratory animal veterinarian (during the AUP review, or before the AUP submission)

Personnel performing anesthesia in animals **must** be appropriately trained and competent to perform anesthesia. Competency should be determined by direct observation by experienced research or veterinary personnel.

Animals undergoing major or minor surgical procedures **must** be administered appropriate local and/or general anesthesia that renders them unconscious and/or unable to perceive any pain or distress associated with the procedure.

Appropriate monitoring for the appropriate level of anesthesia and vital signs, during anesthesia and during recovery from anesthesia, **must** be provided to ensure effectiveness of anesthesia and mitigation of pain perception and distress.

Administration of anesthesia **must** be documented, either in the animal's individual Clinical Health Record, or, for rodents and non-mammals, on a group record.

Specific guidance and recommendations are available in the document, "Guidance on Anesthesia in Research and Instruction Animals," and from the URAR veterinarians.