

Subject:	Major and Multiple Surgeries
Source	Institutional Animal Care and Use Committee (IACUC)
Effective Date	07/13/2026
Replaces:	07/10/2023
Applies to:	Personnel involved in Research or Teaching involving animals.
Reference:	Animal Welfare Act; PHS Policy on Humane Care & Use of Laboratory Animals. Guide for the Care & Use of Laboratory Animals

The Institutional Animal Care and Use Committee (IACUC) provides oversight of the institution's animal care and use program, ensuring compliance with federally mandated regulations, ethical standards, and institutional policies governing the humane use of animals in research and teaching at the University of Colorado Denver | Anschutz. The IACUC evaluates and reviews all activities related to the care and use of animals and determines if the proposed activities are in accordance with regulations.

Policy Statement

This policy defines major surgery and provides information on multiple survival surgeries and establishes procedures to be followed.

Major Surgery:

- Whether a procedure is major or minor will be evaluated on a case-by-case basis and determined by the veterinarian and IACUC.
- In general, major surgery penetrates and exposes a body cavity or produces significant impairment of physiological function.

Multiple Surgeries:

- Multiple survival surgical procedures are any additional surgical procedures from which the animal is expected to recover from anesthesia. Multiple survival surgical procedures on a single animal are discouraged but may be approved by the IACUC if scientifically justified by the investigator.
- Some procedures characterized as "minor" may induce substantial postprocedural pain or impairment and should similarly be scientifically justified if performed more than once in a single animal.
- When multiple survival surgeries are proposed, the protocol should describe the expected interval between procedures. The veterinarian and IACUC will consider whether the animal is expected to recover adequately before undergoing an additional survival surgery.
- Investigators should consider whether the use of additional animals would reduce the cumulative pain or distress associated with repeated procedures. Scientific justification for multiple survival surgeries is required by the Animal Welfare Act (Sect. 2.31 (d)(1)(x)(a)).
- Multiple major survival surgeries can be justified if they are:
 - 1) included in and are essential components of a single research project or protocol,
 - 2) scientifically justified by the investigator,
 - 3) necessary for clinical reasons.
- Conservation of scarce animal resources may justify the conduct of multiple major surgeries on a single animal, but the application of such a practice on a single animal used in separate protocols is discouraged and may require USDA approval for USDA-covered species.
- Cost saving alone is not an adequate reason for performing multiple major survival surgeries.

- Each IACUC protocol proposing the use of multiple survival surgeries will be considered and reviewed by the IACUC on a case-by-case basis.
- Federal oversight guidelines mandate that the IACUC must actively monitor the welfare of these high-risk animals. Any protocol approved for multiple major survival surgeries will be subject to heightened Post-Approval Monitoring (PAM) by the IACUC to continuously evaluate the animal well-being outcomes.

Compliance and Accountability

In accordance with regulatory requirements, failure to comply with this policy will result in a review by the IACUC. Depending on the severity of the violation, you will be required to complete additional training, and your privileges to conduct animal research at CU Denver | Anschutz may be suspended or completely revoked.

If your research privileges are suspended, your funding agency (e.g., NIH) and relevant regulatory agencies (e.g., USDA) will be informed about your violation of federal and/or local policies regarding the humane use of animals. This notification will have a direct impact on your ongoing funding for animal-related research.