

## *PACUC Policy*

### *Multiple Survival Surgery*

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Purpose: To define "multiple survival surgery" and to define "major surgery."

Principle: To ensure that there is consistency between protocols and assist reviewers and researchers in reviewing and writing protocols involving multiple surgeries.

Scope: This applies to all PACUC Protocol Applications.

Policy Statement:

Principal Investigators (PIs) are to clearly define surgeries to be performed and fully justify multiple major survival surgeries. *(Note: Multiple major survival surgeries on USDA covered species, where the surgeries are not part of a single research protocol, require that the Institutional Official submit a request to the USDA/APHIS and receive specific approval.)*

Definitions:

1. Surgery: incision >0.5cm

2. Types of Surgery:

- a. Single survival surgery: a surgery is performed and the animal is recovered from anesthesia
- b. Multiple survival surgery: more than one surgical session is performed and the animal is recovered from anesthesia after each session
- c. Major surgery:
  - penetrates and exposes a body cavity such as the thorax, abdomen, or a joint cavity
  - substantially impairs physical or physiological function, such as removal of any part of a limb
  - involves extensive tissue dissection or transection

Example scientific justifications that could be used on a protocol application:

1. *Scientific Purposes* – The justification would need to show how the multiple survival surgeries are necessary for the research/teaching being performed and why other methods cannot be utilized to achieve the research/teaching goals.
2. *Conservation of a scarce resource* – multiple major survival surgeries could be performed in separate animals, but this would further reduce the scarce resource by increasing the number of animals used. It needs to be determined that the additional survival surgery does not cause undue stress to the animal. Application of this reason is discouraged and will be very critically weighed during the review process.
3. Two surgeries are required that could be performed at the same time, but to do so would sufficiently compromise the animal that it may not survive, whereas if the animal is able to heal from the first before the second, it should survive both procedures.
4. *Salvage value* - as in the case of a food animal in which two separate surgeries are required (on a single protocol) at different times and in which, the second could be non-survival; however, to kill the animal would unnecessarily be a waste of a food source. It needs to be determined that the additional survival surgery does not cause undue stress to the animal.

Responsibility:

It is the responsibility of the Principal Investigator to conscientiously evaluate the need to perform surgery (whether single or multiple) and adequately justify it. It is the responsibility of the PACUC to review the protocol in reference to the science and practicality of the study, while considering the humane treatment of the animals involved.