Major surgery penetrates and exposes a body cavity, involves orthopedic surgery, or produces significant impairment of physical or physiological function. Multiple major survival surgical procedures on a single animal are discouraged, but may be approved by the IACUC if scientifically justified by the investigator. It is preferable to use more animals, if possible, to reduce the amount of pain/distress individual animals may experience. Multiple major survival surgeries can be justified if they are related components of a research or teaching project conserve scarce animal resources, or if needed for veterinary care reasons. Cost-savings alone is not an adequate reason for performing multiple major survival surgeries. A major survival operative procedure must not be performed a second time on an animal in a separate IACUC proposal. Animals surviving a major operative procedure must be identified (written documentation to IACUC) to prevent their use in a second major survival operative procedure. Each animal-use protocol proposing multiple survival surgeries will be considered and reviewed by the IACUC on a case-by-case basis.