

The Road to Aseptic Survival Surgery in Mice, Rats & Birds

Survival Surgery is defined as any procedure following which the animal regains consciousness for any period of time. If you have any questions about conducting survival surgery, contact a campus veterinarian at (817) 735-2017. Refer to the UNTHSC Animal Care and Use Policies for the complete Guidelines for Survival Surgery in Mice, Rats & Birds.

Sterilize All Instruments

- Use an autoclave or ethylene oxide gas
- For surgery involving multiple animals, sterilize enough sets of instruments so that after each set is utilized it can be disinfected for at least 15 minutes before being re-used. To disinfect used instruments (1) soak in 70-90% ethyl alcohol for at least 15 minutes; (2) wipe disinfectant instruments with sterile gauze; and (3) change ethanol solution when contaminated with blood or debris.

Prepare Surgery Area

- Select a clean, clutter-free area which is away from heavy traffic
- Sanitize surgical table with disinfectant (e.g., Zepherin®).

Prepare Animal for Surgery

- Clip a wide margin of hair around the surgical site with #40 clipper blade (remove feathers from birds)
- Scrub surgical site three times using povidone-iodine or chlorhexidine gluconate using an alcohol wipe between each scrub
- Drape animal with sterile cloth leaving only the surgical site exposed.

Prepare Surgeon

- Wear a clean lab coat or surgical gown at all times
- Wear sterile gloves or examination gloves dipped in 10% bleach.

Survival Surgery and Post-Operative Care

- Administer and monitor anesthetics, analgesics and antibiotics as described in the IACUC-approved protocol
- Prevent hypothermia during surgery by using a heating source (Note: Heating sources must be monitored at all times to prevent burning or hyperthermia)
- Monitor animals frequently in the laboratory until fully recovered and then return animals to the vivarium.
- Remove sutures or wound clips 7-10 days after surgery.

Record Keeping

- Maintain accurate and complete records of anesthetics, post-operative medications, and follow-up care.