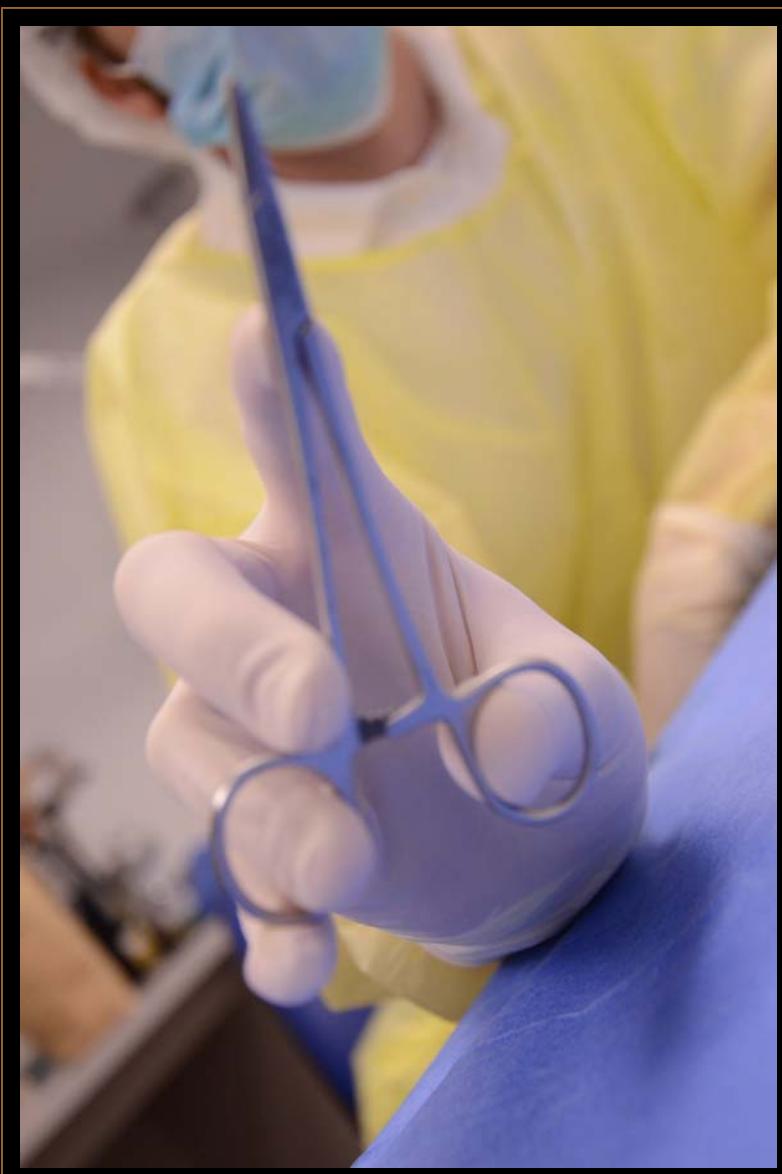


KEYS TO SUCCESS IN RODENT SURGERY

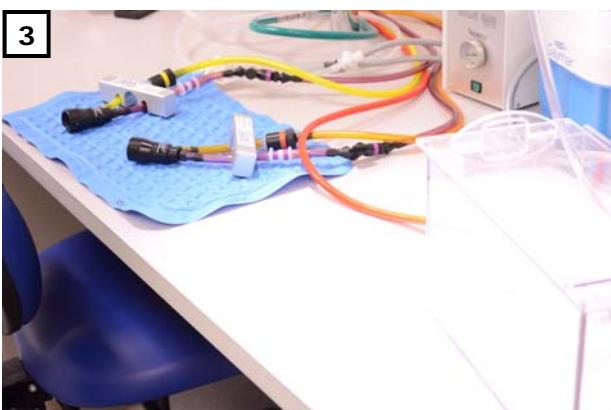


CCM
Center for Comparative Medicine

Section 1

Preoperative Aseptic Techniques

Choose an area that has low traffic, is well lit, and can be easily disinfected.



Clear area of unnecessary items. Disinfect the area, including induction chamber.

Section 1

Preoperative Aseptic Techniques

Choose an appropriate heat source.



Warm water blanket.



Warming disc



Place a heat source (halfway) underneath the **induction** cage when anesthetizing multiple animals at the same time.



Place a heat source (halfway) underneath the **recovery** cage.



This type of electrical heating pad is unsafe and may not be used with anesthetized animals.

Section 1

Preoperative Aseptic Techniques



Place an absorbent pad on the procedure surface.



Place several paper towels on top of the absorbent pad for animal prep.

Section 1

Preoperative Aseptic Techniques



Gather all necessary materials.



Swabs



Gauze or Sponges



Surgical scrub set up

Section 1

Preoperative Aseptic Techniques



Anesthetize the animal,
(based on approved anesthetic in protocol).



Place animal on paper towels and heat source.
Apply artificial tears to animal's eyes. Do not touch the tip of the tube to eye.



Administer pain medication as listed in your
approved protocol. Subcutaneous injection shown
here.



Shave the surgery site.

Section 1

Preoperative Aseptic Techniques



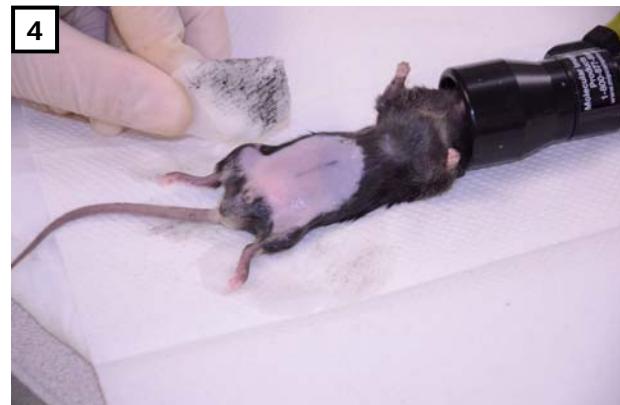
1 Apply depilatory cream.



2 Allow to set 20 seconds.



3 Remove hair with an alcohol-wetted gauze/wipe.



Section 1

Preoperative Aseptic Techniques

Remove the top paper towel from underneath the animal and discard, leaving clean absorbent pad.



Using a circular motion and, starting in the center of the surgery site, work toward the outer edges.



Follow this process with an alcohol-wetted gauze/wipe/cotton tipped applicator.



Repeat the entire process twice more for a total of three times.

Section 1

Preoperative Aseptic Techniques



1
Don clean scrubs/lab coat/yellow gown, mask and hair cover.



2
Open the outer layer of the sterilized surgical pack, being careful not to touch inside of pack with hands.



3
Open the outer layer of surgical gloves.



4
Thoroughly wash hands with soap.



5
Rinse hands.

Section 1

Preoperative Aseptic Techniques



Open inner layer of surgical gloves.



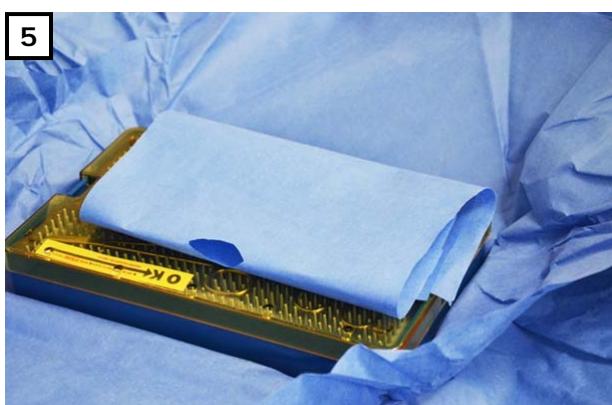
Don sterile gloves.



Surgical gloves are now donned.



Open the inner pack wearing sterile gloves.



Remove the drape from the pack.



Drape the surgical site, using care to create a large sterile field between surgical pack and draped animal.

S e c t i o n 1

Preoperative Aseptic Techniques

End
Section
1

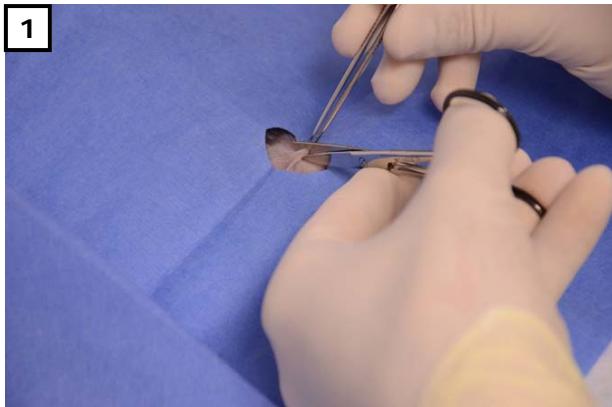
— Section 2 —

Intraoperative Techniques

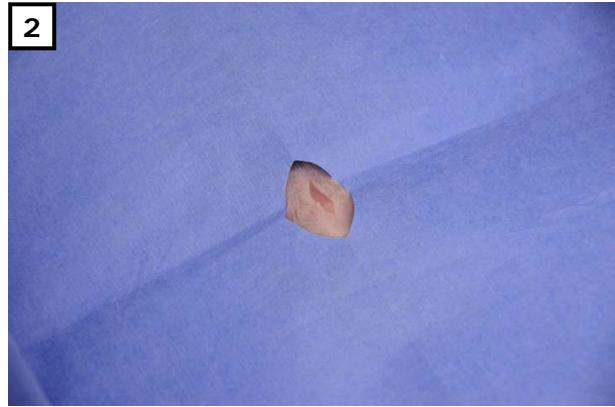


Section 2

Intraoperative Techniques



1
Make incision by gently grasping skin with tissue forceps and using sharp scissors. The incision should be a single straight sharp cut. Abdominal incision should oriented head to toe.



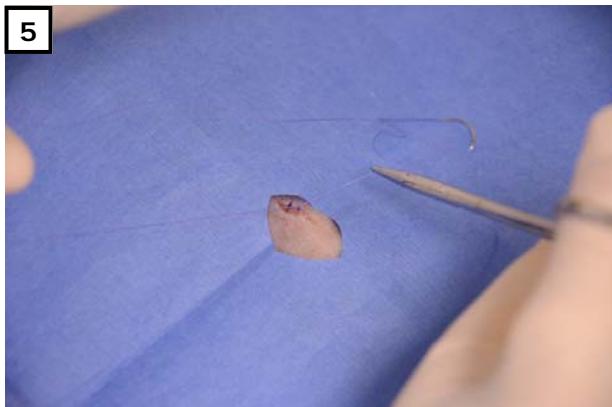
2
Prepare to make incision into the body wall.



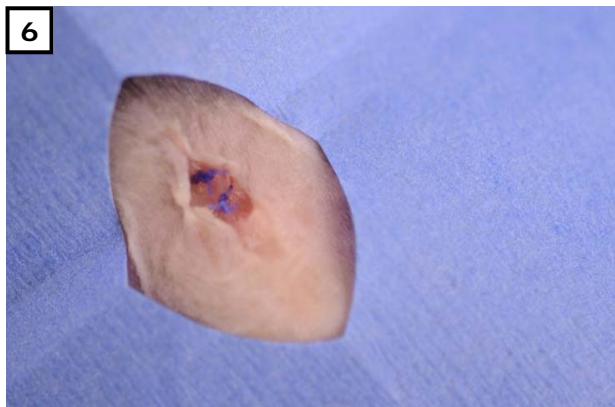
3
Gently lift body wall with forceps and make incision.



4
Begin closure of the body wall with appropriate suture type and simple interrupted pattern.



5
When placing suture, bring tissue into apposition without over cinching the first throw in the knot.



6
Body wall closure is complete.

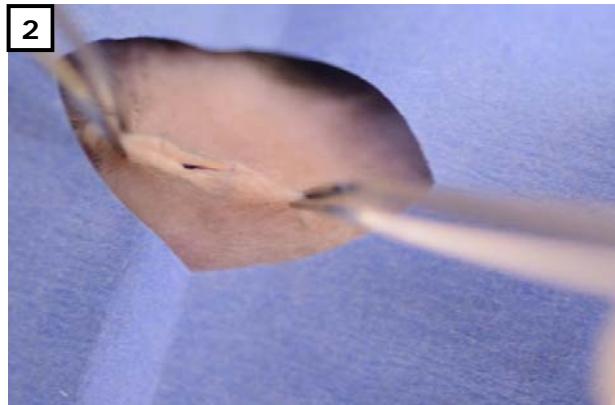
Section 2

Intraoperative Techniques

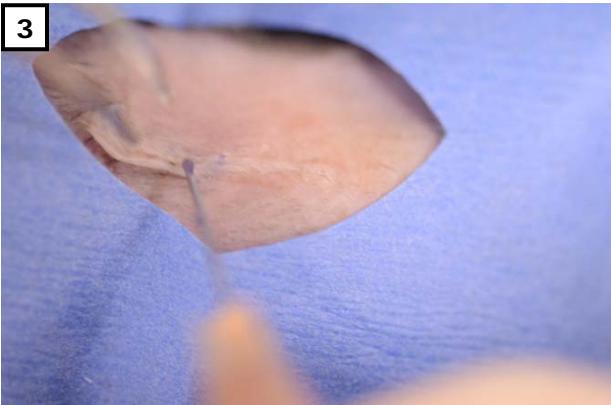
Wound Closure Methods—Skin Glue



Skin Glue



To close skin with skin/tissue glue gently lift skin up with forceps.



Apply small amount of skin/tissue glue to incision.

Section 2

Intraoperative Techniques

Wound Closure Methods—Wound Clips



Close with wound clips. Use 7 mm wound clip for mice.



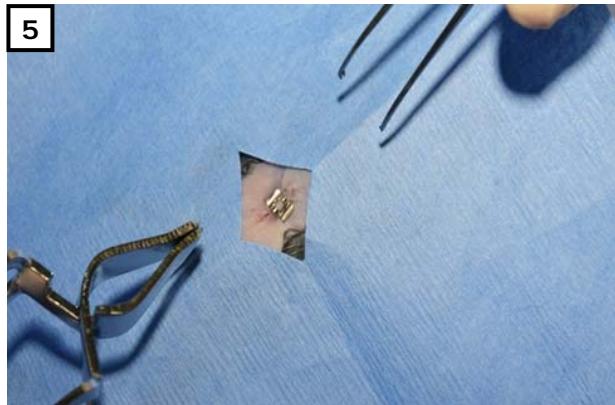
Load wound clip applicator



Lift the skin and gently apply wound clip(s).



Verify wound clip is placed properly and place another clip if needed to close skin incision.

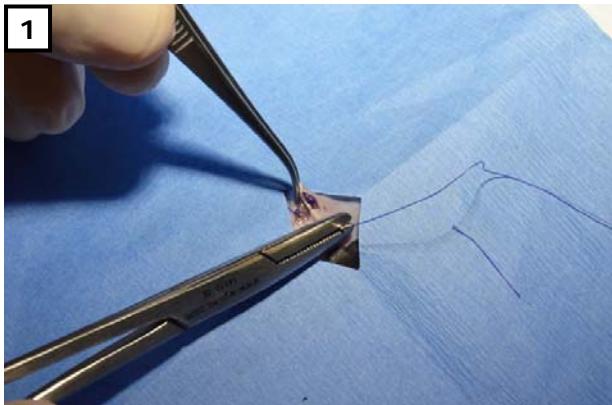


Wound clip(s) should be removed after 7-10 days using a wound clip remover.

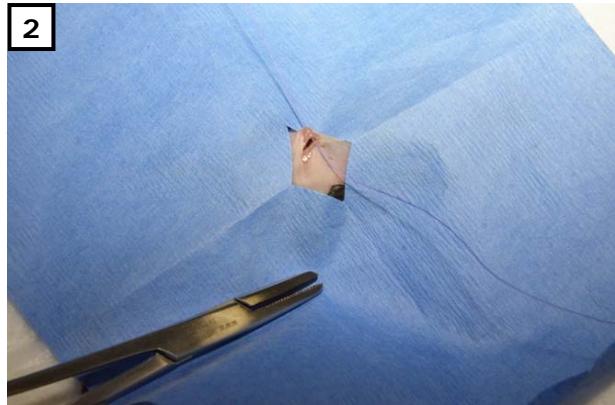
Section 2

Intraoperative Techniques

Wound Closure Methods—Suture



Begin closure of the skin wall with appropriate suture type and simple interrupted pattern.



When placing suture, bring tissue into apposition without over cinching the first throw in the knot.



Simple interrupted suture pattern is shown here.

Section 2

Postoperative Techniques

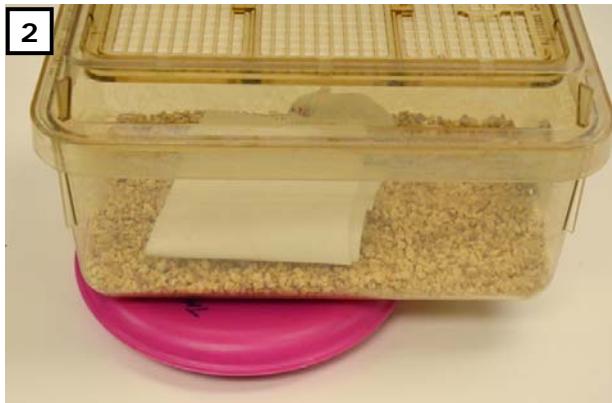
Post Operative—Monitoring and Care



Analgesics are shown here. (Follow approved protocol).



Administer pain medication as listed in your approved protocol. Subcutaneous injection shown here.



Place animal in recover cage. The cage should be half on the heating source.



Do not return cage back to the rack until the animal is ambulatory.

5 Protocol number:

Contact person/ lab phone/ after hours phone:

Species/ # animals/ animal ID:

Room/ cage location:

Surgical procedure performed:

Date of Surgery:

Pre-emptive analgesics given? Yes No Time: _____

Drug: _____ Dose (mg/kg): _____ Frequency: Every _____ hours

Animal recovered (alert & mobile)? Surgeon's Initials: _____ Time: _____

Sx

6 POSTOPERATIVE MONITORING

| | Day of Surgery | Post-op Day 1 | Post-op Day 2 | Post-op Day 3 | |
|------------------------------|----------------|---------------|---------------|---------------|--|
| Analgesia dosed & time given | | | | | |
| Incision appearance | | | | | |
| Overall health | | | | | |
| Checked by (initials) | | | | | |
| Notes: | | | | | |

Thoroughly fill out green CCM Surgical Card, no abbreviations. Place on cage and return cage to rack.