

Surgical Procedures

At the completion of this unit, students will be able to:

- Identify surgical instruments
- Prepare & sterilize instrument packs for surgery
- Provide Pre-op & Post-op Surgical care to animals
- Describe skills in surgical assisting
- Perform basic suture patterns



A. Identify surgical instruments

Surgical Instruments

- **Lister Bandage Scissors**
 - To remove bandages & other dressings



A. Identify surgical instruments

Surgical Instruments

- **Bandage Scissors**
 - To remove tight fitting bandages



A. Identify surgical instruments

Surgical Instruments

- **Littauer Suture Removal Scissors**
 - Notch characterizes



A. Identify surgical instruments

Surgical Instruments

- **Suture Wire Cutting Scissors**
 - Notch characterizes



A. Identify surgical instruments

Surgical Instruments

- **Mayo Dissecting Scissors**
 - Blunt or sharp tips $5\frac{1}{2}$ " to $6\frac{3}{4}$ ", can be curved
 - Used in large animals, to cut through bulky connective tissues



A. Identify surgical instruments

Surgical Instruments

- **Metzenbaum Dissecting Scissors**
 - Blunt or sharp tips, 7" most common
 - Used to blunt-dissect or cut soft tissues



A. Identify surgical instruments

Surgical Instruments

- **Adison Tissue Forceps**
 - Used for delicate tissues, very fine teeth



A. Identify surgical instruments

Surgical Instruments

- **Allis Tissue Forceps**
 - Used to hold with maximal power



A. Identify surgical instruments

Surgical Instruments

- **Babcock Tissue Forceps**
 - Used to grasp delicate tissue, such as intestines



A. Identify surgical instruments

Surgical Instruments

- **Brown Adson Thumb Forceps**
 - Used for delicate tissues
 - 2 rows of 9 teeth



A. Identify surgical instruments

Surgical Instruments

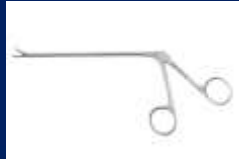
- **Rat Tooth Thumb Forceps**
 - Used to grasp skin to place sutures



A. Identify surgical instruments

Surgical Instruments

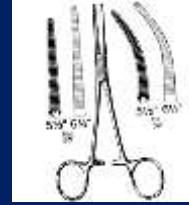
- Alligator Forceps
 - Used to retrieve foreign objects in animals body



A. Identify surgical instruments

Surgical Instruments

- Crile Forceps
 - Can be curved, FULLY Serrated
 - Used to close vessels
 - Most common large hemostats in surgical pack for dogs & cats



A. Identify surgical instruments

Surgical Instruments

- Halstead Mosquito Hemostatic Forceps
 - Used to clamp small vessels
 - Common in small hemostat surgical packs



A. Identify surgical instruments

Surgical Instruments

- Kelly Forceps
 - Can also be curved, 1/2 is serrated
 - Used to clamp small to medium-sized vessels



A. Identify surgical instruments

Surgical Instruments

- Carmalt Forceps
 - Used to clamp large tissue bundles
 - Grooves that run longitudinal & transverse



A. Identify surgical instruments

Surgical Instruments

- Olsen-Hegar Needle Holder
 - Scissor blades behind the jaws
 - 5 1/2", 6 1/2", & 7 1/2" lengths



A. Identify surgical instruments

Surgical Instruments

• Mayo-Hegar Needle Holder

- Short jaws have grooves, some have groove down center of jaws
- Has a box lock, so the needle cannot turn



A. Identify surgical instruments

Surgical Instruments

• Backhaus Towel Clamp

- Holds surgery drape in place



A. Identify surgical instruments

Surgical Instruments

• Scalpel Handle



A. Identify surgical instruments

Surgical Instruments

• Scalpel Blade



A. Identify surgical instruments

Surgical Instruments

• Snook Ovariectomy Hook

- To retrieve uterine horn in small animals



A. Identify surgical instruments

Surgical Instruments

• Staple Remover



A. Identify surgical instruments

Surgical Instruments

- **Autoclave Tape Indicator**
 - Used to identify sterile surgical packs and instruments



B. Prepare & sterilize instrument packs for surgery

Surgical Packs

- Types of surgical packs include:
 - General packs for soft tissue surgeries
 - Bone packs for orthopedic
 - Emergency packs
 - Neurological packs for spinal surgeries.



B. Prepare & sterilize instrument packs for surgery

Sterilizing & Preparation

- Instruments should be rinsed with water.
- They should also be cleaned with an ultrasonic cleaner to remove tightly bound soil or clean areas a brush cannot reach.



B. Prepare & sterilize instrument packs for surgery

Sterilizing & Preparation

- Instruments should be thoroughly cleaned and air dried before autoclaving.



B. Prepare & sterilize instrument packs for surgery

Sterilizing & Preparation

- Instruments must be checked for:
 - Cleanliness
 - Stiff or frozen hinges
 - Improper jaw alignment
 - Worn or broken parts



B. Prepare & sterilize instrument packs for surgery

Sterilizing & Preparation

Directions:

1. Gather the appropriate instruments
2. Gather the appropriate linen supplies.
3. Select the appropriate packaging material & chemical indicator strip.
4. Assemble the pack correctly, following the instructions correctly on the checklist.
5. Appropriately select & place the chemical indicator.
6. Appropriately select and utilize packing material.



C. Provide Pre-op & Post-op Surgical care to animals

Pre-op Care

Skin Preparation:

- clipping hair-2-4 cm in every direction from proposed site.
- surgical scrub-done until no dirt comes off on the sponges.



C. Provide Pre-op & Post-op Surgical care to animals

Pre-op Care

Positioning

- Described by the region of the body that comes in contact with the table.
 - Right lateral recumbency: lying on its right side
 - Dorsal recumbency: lying on its back
 - Sternal recumbency: lying on its belly



C. Provide Pre-op & Post-op Surgical care to animals

Pre-op Care

- Positioning for large animals such as horses requires more personnel (3) and large equipment like a hoist.
- Notice how the feet are wrapped...why?



C. Provide Pre-op & Post-op Surgical care to animals

Pre-op Care

- Surgical candidate should undergo a complete preoperative assessment.
- Temperature, pulse rate, respiration rate, body weight, and demeanor should be considered.
- Include what the primary problem is and eating, drinking, urination, and defecation habits should be considered.
- Diagnostics may also include blood work, heartworm tests, urinalysis, radiographs, etc.



C. Provide Pre-op & Post-op Surgical care to animals

Post-op Care

- Postoperative duties may include bandaging and anesthetic recovery of the patient.
- Inspection of the surgical wound should be made daily.



C. Provide Pre-op & Post-op Surgical care to animals

Post-op Care

- Suture removal is commonly performed by the veterinary technician.
- Usually 10-14 days after surgery.
- Check for adequate healing before removal of sutures.



D. Describe skills in surgical assisting

How to Assist in Surgery

- **Surgical assistant verifies:**
 - Instruments
 - Implants
 - Surgical/diagnostic supplies
 - Medications
 - Anesthetic equipment
 - OR (operating room)
- Are available and set up for surgery.



D. Describe skills in surgical assisting

How to Assist in Surgery

- Be familiar with the objectives of the technique to more effectively manipulate the instruments and tissues into position for completion of the surgical task.



D. Describe skills in surgical assisting

How to Assist in Surgery

- Responsible for protecting the patient from hazards of surgery, such as infection, by maintaining an aseptic surgical field and expediting surgical completion by anticipating needs for proper instruments and suture readiness.



D. Describe skills in surgical assisting

How to Assist in Surgery

- Technician must always be aware of the patient's anesthetic and cardiovascular status while assisting.
- Intra-operative and postoperative pain assessment is important for animal well-being and health.



E. Perform basic suture patterns

Sutures

- **Suture=**
 - Any material that holds tissues together until they heal



E. Perform basic suture patterns

Sutures

- **When are they needed?**
 - Hold incision or wound edges together
 - Ligating (cutting off) blood vessels
 - Strengthening/replacing weakened tissues (hernias)



E. Perform basic suture patterns

Sutures

- Types of sutures
 - Absorbable
 - Broken down & absorbed within 60 days
 - Non absorbable
 - Must be removed



E. Perform basic suture patterns

Sutures

- Types of suture material



E. Perform basic suture patterns

Sutures

- Needles
 - Usually curved to make it easier & faster



E. Perform basic suture patterns

Sutures

- Prepare for Sutures
 - Shave & clean wound



E. Perform basic suture patterns

Sutures

- Interrupted Suture



E. Perform basic suture patterns

Sutures

- Continuous Suture



E. Perform basic suture patterns

Sutures

- Purse String Suture



Bell Work 3/17:

- Read pages 349-352 and answer questions 1-5 on page 352.



Bell Work 3/19:

- Read pages 353-354 and answer questions 1-3 on page 354.



Bell Work 3/23:

- Read pages 355-359 and answer questions 1-7 on page 359.



Bell Work 3/25:

- Read pages 355-359 and answer questions 8-13 on page 359.



Bell Work 3/27:

- Read pages 361-362 and answer questions 1-3 on page 362.



Bell Work 3/31:

- Read pages 363-365 and answer questions 1-8 on page 365.

