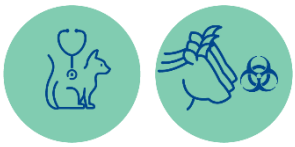
Veterinary Bioscience: Digestive System



OHS INDUCTION & SAFE INSTRUMENT HANDLING

TEACHING STAFF

- Dr James Adamu james.adamu@unimelb.edu.au
- Dr Christina Murray cmmurray@unimelb.edu.au
- Prof. Simon Bailey bais@unimelb.edu.au
- Dr Nicholas Bamford n.bamford@unimelb.edu.au

LOCATION

- WEBS (Building 125) Dissection Laboratory (Room B104)

INTENDED LEARNING OUTCOMES

At the end of this class, you should be able to:

- Explain the safety and biosecurity rules and standard working procedures for:
  - Anatomy Dissection Laboratory
  - Object Based Learning Area (OBLA)
- Demonstrate competency with safe procedures for the normal handling of sharp instruments.

CLASS PREPARATION

Before attending class:

- Read the Dissection Lab Induction and Dissection Lab Standard Working Procedures documents.
- Watch short videos (available on the LMS) that demonstrate basic dissection instrument handling and techniques that should be practiced during dissection classes.

SAFE INSTRUMENT HANDLING

**** This exercise must be completed by every student before the first dissection class ****

Dissection is your introduction to surgery and the handling of surgical instruments. Scalpels and needles are sharp and it is easy to injure yourself with them. Hence, the development of good habits in handling sharp instruments are essential to avoid injury to yourself or others. The following notes describe the procedure for this class.

Following the Dissection Laboratory induction, each student is to locate an instructor at one of the tables and **observe the instructor's demonstration** of the following:

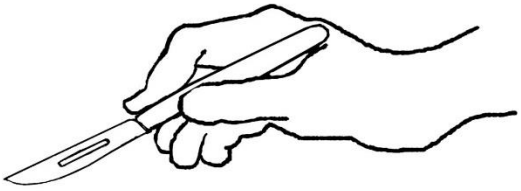
- Scalpel blade attachment to handle and subsequent removal and disposal of blade.
- Hypodermic needle attachment to syringe barrel; subsequent removal and placement in foam block.

Students will then:

- Practise the above procedures until confident.
- Demonstrate their competency in these procedures to their instructor.
- Sign their instructor's record sheet in view of the instructor who will then countersign.
- Observe the cannulas and needles on display to confirm their ability to distinguish these items.

Instrument grips

Two basic grips for holding the scalpel:



Pencil grip

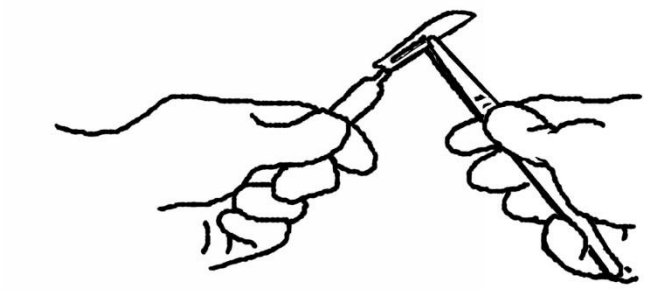
The pencil grip facilitates steady cutting by allowing the hand to rest on the tissues and uses finger rather than arm movement to incise; best suited for short, precise incisions.

Fingertip grip

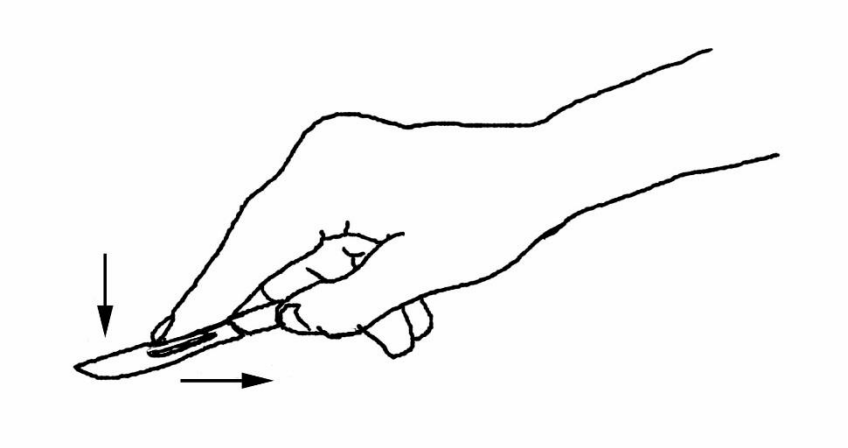
The fingertip grip is recommended for longer incisions (>3 cm) and uses arm motion rather than finger motion to cut tissue. It is applicable to most scalpel cutting. The index finger is placed on the upper edge of the blade for stability, but should neither touch the tissue being incised, nor obstruct the view of the incision.

Disposable scalpel blades

For application to, and removal from the scalpel handle, blades are grasped and manipulated with tissue or artery forceps or other grasping instrument rather than with the operator's gloved hands. There are scalpel blade removal containers available on each dissection table in the dissection laboratory. These containers should be used to remove scalpel blades during classes.

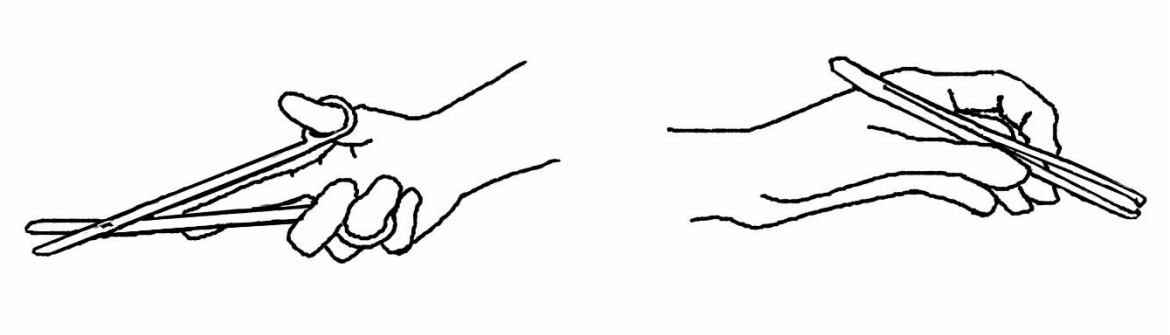


Using the scalpel



Slide cutting is the safest and most common method of incising tissues with a scalpel.

The pencil grip is used for short incisions through the delicate tissues, while the fingertip grip is preferred for long incisions and for tissues requiring greater incisional pressure. The increased safety of slide cutting is attributable to application of pressure at a right angle to the motion of the blade. This facilitates precise control of incisional depth as the blade is drawn through the tissue. Arrows indicate directions in which forces are applied.



Scissors

Efficient scissor cutting depends on closing, shearing and torque forces and the wide-based tripod grip (above) best uses the scissors design to maximise these forces. In this grip the tips of the right thumb and third finger are placed through the rings to grasp the scissors and the right index finger is placed on the shanks near the fulcrum for support.

Tissue forceps

Tissue forceps are used to stabilise tissues for incision and to retract tissue for exposure or excision – use an instrument to manipulate tissues rather than your fingers, especially if they would be placed in the plane of the incision. These non-locking instruments have grasping surfaces with or without teeth. Tissue forceps are usually held in the non-dominant hand and, when in use, are grasped with a pencil grip.