

# Flipped Classroom

## Bandaging



### Disclaimer

A series of booklets (instructions for skills and flipped classroom materials) has been developed by the Clinical Skills Lab team (staff, recent graduates and students) from Bristol Veterinary School, University of Bristol, UK.

Please note:

- Each flipped classroom booklet includes ways to prepare for learning a skill in class; it is acknowledged that there are often other approaches. Before using the booklets, students should check with their university or college to determine whether the approaches illustrated are acceptable in their context or whether an alternative resources should be used.
- The booklets are made available in good faith and may be subject to changes.
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## Introduction

This flipped classroom is designed to be used as preparation for practical classes that involve learning to apply a variety of bandages. The focus is on a foot bandage.

This booklet has the following sections:

1. Learning outcomes
2. Content (a selection of learning resources)
3. MCQs (a self-assessment quiz)
4. Notes and other useful learning resources

## 1. Learning Outcomes

- List the materials used for a foot bandage
- Describe the steps to perform when applying a foot bandage
- Apply a foot bandage

*N.B. The focus of the flipped classroom is on underpinning knowledge and 'knowing how' to do the skills, which will ensure you can get the most out of the time spent in the practical class. However, you will have access to some bandaging materials and therefore you can also use the flipped classroom to practise bandaging techniques.*

### 2A: What is a bandage used for?

A bandage can be used for lots of reasons, for example:

#### **Wounds**

- Protect a surgical site following an operation
- Hold a dressing in place to aid wound healing
- Prevent patient interference e.g. licking a wound
- Control bleeding

#### **Orthopaedic**

- Provide support for a fracture or sprain
- Hold a splint in place
- Help reduce swelling e.g. oedema
- Provide comfort and relieve pain prior to surgery e.g. a Robert Jones bandage

#### **Holding objects in place**


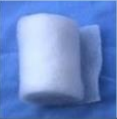


- An intravenous catheter
- Medical patch
- Surgical drain
- Pacemaker

### 2B: A bandage has several layers

A bandage typically consists of **3 layers**:

1. Primary – which consists of a sterile dressing
2. Secondary – which consist of padding material & a conforming bandage
3. Tertiary - which consists of a cohesive bandage which provides protection and prevents patient interference.

**Table describing the layers of a bandage**

Bandage Layer	Bandaging Materials	Please note these images have had outer packaging removed	Examples	Note
Primary	Sterile Dressings		Melolin Allevyn Jellonet	<ul style="list-style-type: none"> <li>• Sterile Dressings cover wounds and aid healing</li> <li>• They can be dry or wet</li> <li>• Read instructions on packet</li> </ul>
Secondary	Padding		Soffban Orthoband	<ul style="list-style-type: none"> <li>• Provides padding</li> <li>• Keeps Sterile dressing in place</li> <li>• Aids with absorption of wound discharge</li> </ul>
	Conforming		Coform Knit-Fix Easifix	<ul style="list-style-type: none"> <li>• More elastic than padding layer</li> <li>• Stretch and conform to shape of limb</li> <li>• <b>Care</b> if too tight the blood supply could be compromised</li> <li>• Too loose and bandage may slip</li> </ul>
Tertiary	Cohesive		Vetrap Coflex Elastoplast	<ul style="list-style-type: none"> <li>• Protective layer</li> <li>• <b>Care</b> – quite elastic so care not to apply it too tight</li> <li>• Sticks to itself no need to apply any adhesive material</li> </ul>

### Considerations:

- If there is a wound, an appropriate sterile dressing should be applied before starting the bandage.
- If the foot is included in the bandage, the toes (including the dew claw / stopper pad, if present), must be padded with strips of cotton wool to prevent rubbing and sores developing.
- Bandage materials come in different sizes e.g. 5cm, 7.5cm, 10cm. When selecting the materials consider the animal size and type of bandage e.g. foot, head, Robert Jones.

### 2C: Preparing to apply a bandage

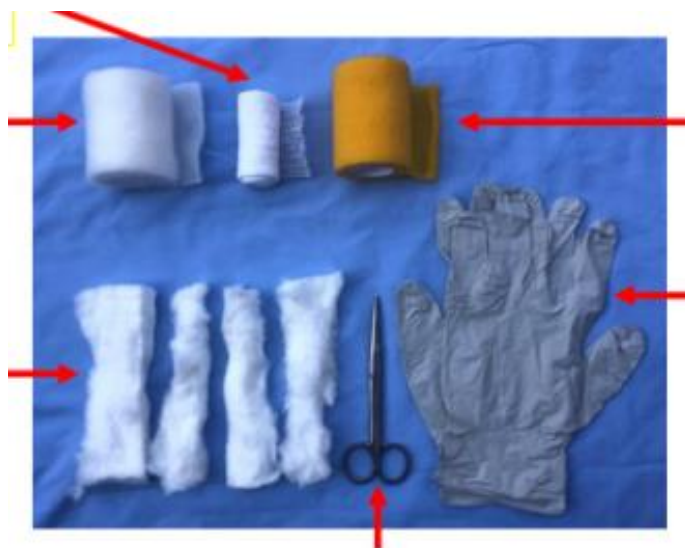
There is a series of **steps** to follow to ensure you have everything ready to start bandaging:

- Wash your hands (using WHO handwashing technique).
- Place all equipment close to hand e.g. on a tray if the animal is on the floor, or on the table. It should be near the patient but not in a position where it is likely to be knocked on the floor.
- Remove outer packaging from bandages.

**Test yourself** on all the equipment you will have set out ready to start bandaging.

*Click on the image below or use the link to access the quiz:*

[https://xerte.bris.ac.uk/play.php?template\\_id=3948](https://xerte.bris.ac.uk/play.php?template_id=3948)



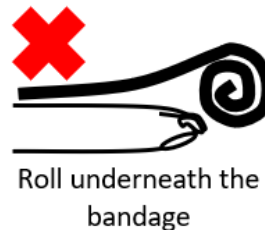
### 2D: Applying a foot bandage

Now that you have everything you need, **you are ready to start:**

- Ask an assistant to restrain the patient.
- Position yourself so the foot can be held with your non-dominant hand and the bandage with your dominant hand – see photos:



- While applying each layer remember to **keep the roll on the top of the bandage** – see diagram:



- To view a **video** showing **how to apply a foot bandage** *click on the image below or the following link:* <https://youtu.be/RzBa98utTCK>



PLEASE NOTE - You must **be careful with the tertiary layer**, so it is not applied too tight i.e. stretch the bandage and release it before placing it on the animal, do not apply it straight from the roll.



### 2E: Checking a bandage once it's applied (*& what can go wrong*)

#### Checking the bandage:

- ✓ Always check the bandage tightness once it is applied.
- ✓ You should be able to get 2 fingers inside the top all the way around if it is not too tight or too loose, and you should not be able to pull it off.

#### What if the bandage is too loose or too tight:

- If a bandage is put on too loosely then it may slip or fall off. The bandage will need to be re applied taking time, materials, and compliance from the patient.
- If the bandage is put on too tightly then it will become uncomfortable for the patient and may compromise the blood supply to the foot.
- If an animal nibbles its bandage, don't assume it is just being naughty – it may be a sign of pain or discomfort.

**Some tips** about possible problems and how to avoid them are described in 'CSL booklet: CSL\_B05 Bandaging Oops'. *Click on the image below or the following link:* [http://www.bristol.ac.uk/media-library/sites/vetscience/documents/clinical-skills/CSL\\_B05%20Bandaging%20Oops.pdf](http://www.bristol.ac.uk/media-library/sites/vetscience/documents/clinical-skills/CSL_B05%20Bandaging%20Oops.pdf)

The 'Oops' Bandaging Dog



### 3. MCQs

Test yourself using the MCQs in this quiz:



[https://xerte.bris.ac.uk/play.php?template\\_id=5243](https://xerte.bris.ac.uk/play.php?template_id=5243)



### 4. Notes and other useful resources

There are **clinical skills instruction booklets** relevant to different types of bandage and the related practicals on the website:

<http://www.bristol.ac.uk/vet-school/research/comparative-clinical/veterinary-education/clinical-skills-booklets/>

Relevant booklets include:

- CSL\_B00 Applying a Sterile Dressing
- CSL\_B01 Foot Bandage
- CSL\_B05 Bandaging Oops

Other useful CSL booklets:

- CSL\_B02 Head Bandage
- CSL\_B03 Catheter Bandage in Use
- CSL\_B04 Catheter Bandage Not in Use
- CSL\_B06 Robert Jones Bandage
- CSL\_SP10 Handwash Booklet

Further reading:

- BSAVA Manual of Practical Veterinary Nursing. Chapter 14  
Ed Elizabeth Mullineaux And Marie Jones