



Practical Ophthalmic Procedures Volume One

Teaching Set

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This is the first volume of Practical Ophthalmic Procedures. It is designed to equip the student with six basic skills and knowledge to contribute to primary eye care.

- Cleaning of eyelids
- Instilling eye drops
- Applying eye ointment
- Taping an eyelid closed
- Applying an eye pad and eye shield
- Applying an eye bandage

Subsequent volumes increase this knowledge and develop expertise in ophthalmic procedures.

1. Practical Ophthalmic Procedures

Remember

Before performing any eye procedure

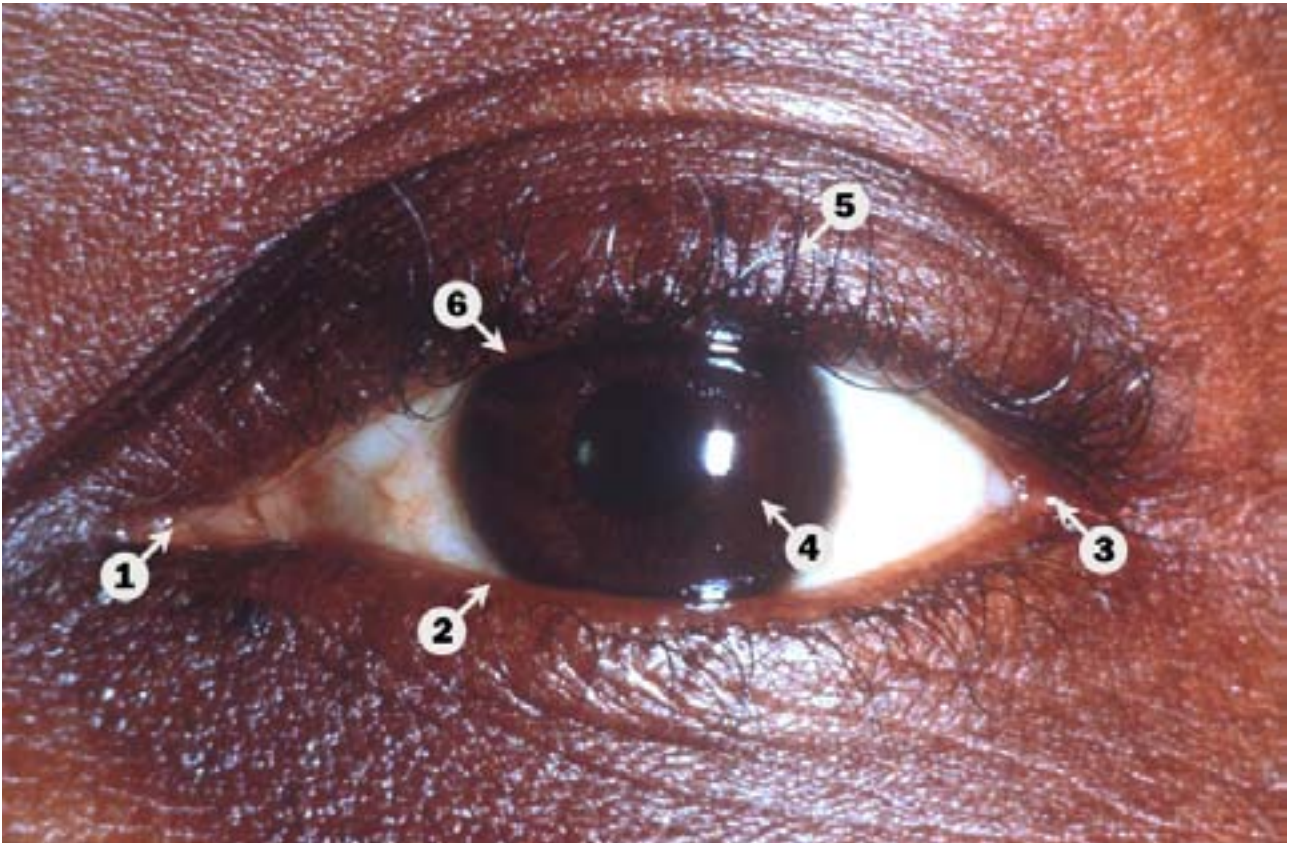
- Wash your hands (and afterwards too)
- Position the patient comfortably with head supported
- Avoid distraction for yourself and the patient
- Ensure good lighting
- Always explain to the patient what you are going to do

Remember

Before performing any eye procedure

- **Wash your hands** (and afterwards too)
- **Position the patient comfortably** with head supported
- **Avoid distraction** for yourself and the patient
- Ensure **good lighting**
- Always **explain to the patient** what you are going to do

2. Picture Glossary



These structures are mentioned in the text.

Before you start - use this picture glossary to check your knowledge of the anatomy of the outer eye.

1. Inner canthus
2. Lower eyelid margin
3. Outer canthus
4. Cornea
5. Eyelashes
6. Upper eyelid margin

3. Cleaning of Eyelids (1)

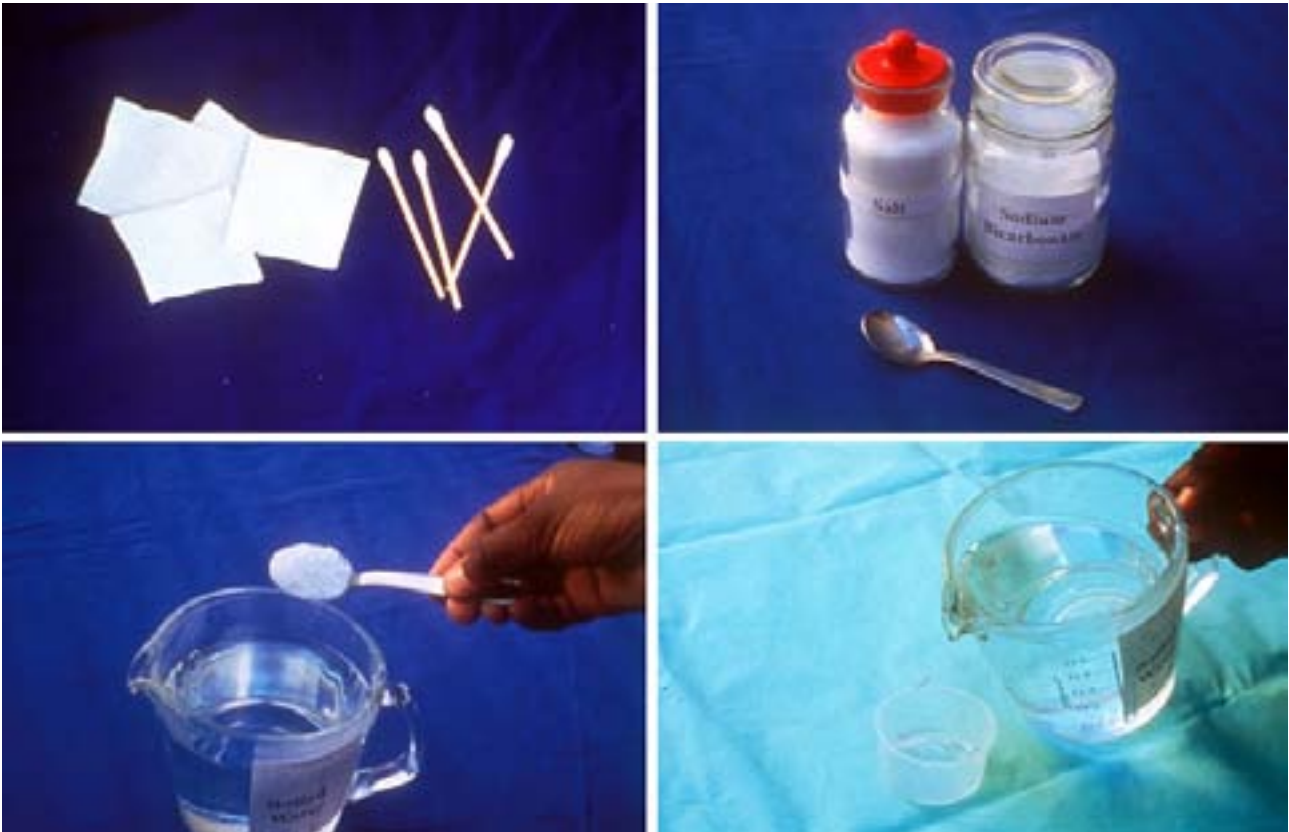
Indications

1. Basic eye hygiene
2. To remove any discharge before instilling eye drops or applying eye ointment
3. Post-operative eye dressings

Indications

- Basic eye hygiene
- To remove any discharge before instilling eye drops or applying eye ointment
- Post-operative eye dressings

4. Cleaning of Eyelids (2)



You will need

Top pictures:

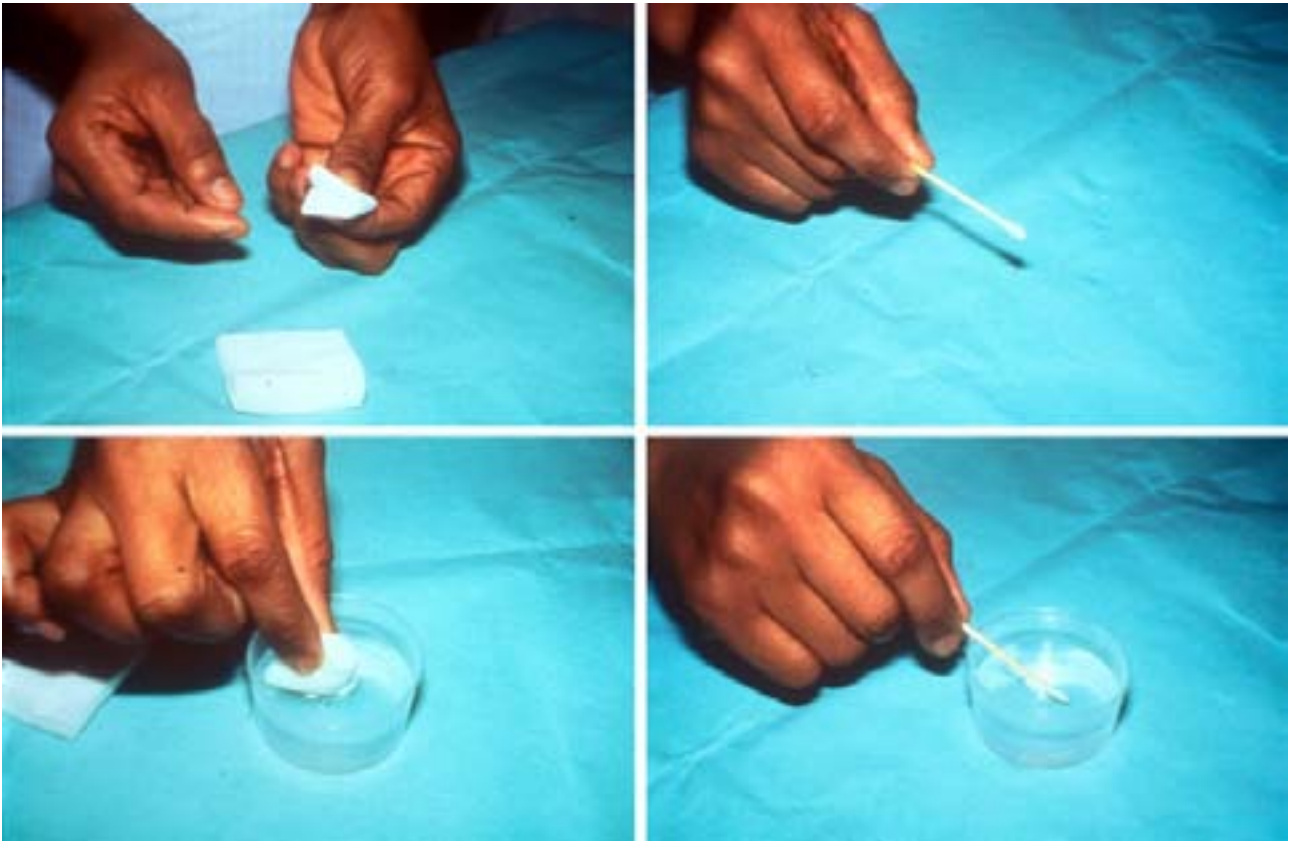
- Sterile gauze swabs or cotton buds
- ***Do not use large cotton wool balls as these can leave fragments on eyelid margins, become an irritant and may even cause complications.***
- Salt or sodium bicarbonate
- Teaspoon

Preparation

Bottom pictures:

- Dissolve 1 heaped teaspoonful of salt or sodium bicarbonate in a $\frac{1}{2}$ litre of **cooled** boiled water.
- Pour a very small amount into a small sterile pot on an already prepared sterile surface.

5. Cleaning of Eyelids (3)



Method

Top pictures:

- Take a folded gauze swab or cotton bud.

Bottom pictures:

- Moisten the swab or bud with the prepared solution.

6. Cleaning of Eyelids (4)



- Ask the patient to close both eyes.
- With the swab or bud, clean **gently** along the eyelashes in one movement from inner to outer canthus.
- **Discard the swab or bud after use.** If the eyelashes need further cleaning use **a new** swab or bud.

7. Cleaning of Eyelids (5)



Top pictures:

- Ask the patient to look up.
- With one hand take a moistened sterile swab or bud.
- With the index finger of the other hand **gently** hold down the lower eyelid.
- With the swab or bud clean **gently** along the lower eyelid margin in one movement from inner to outer canthus.

Discard the swab or bud after use. If the lower eye lid margin needs further cleaning use **a new swab** or bud.

Bottom pictures:

- Ask the patient to look down.
- With one hand take a moistened sterile swab or bud.
- With a thumb or a finger of the other hand gently ease the upper eyelid up against the orbital rim (just below the eyebrow).
- With the swab or bud clean gently along the upper eyelid margin in one movement from inner to outer canthus.

Discard the swab or bud after use. If the upper eye lid margin needs further cleaning use **a new** swab or bud.

Extra care is needed when cleaning the upper eyelid! Try to keep the cornea in view throughout and to avoid touching it with the gauze swab or cotton bud.

It may be necessary to repeat any part of the above procedure, if the eyelids are **very** sticky, until all debris/discharge is removed.

Remember - always use a new swab or bud each time!

8. Instilling Eye Drops (1)

Indications

- **To aid examination**
e.g. dilating the pupil
- **To aid diagnosis**
e.g. staining the cornea
- **To treat eye conditions**
e.g. antibiotic drops

Indications

- To aid examination
e.g. dilating the pupil
- To aid diagnosis
e.g. staining the cornea
- To treat eye conditions
e.g. antibiotic drops

9. Instilling Eye Drops (2)



You will need:

Top pictures:

- Clean swab or paper tissue.
- Prescribed eye drops - these are available in several types of container.

Preparation

Bottom pictures:

- Check that the drops are not date expired.
- Check the patient's name and eye drops label against the prescription.

10. Instilling Eye Drops (3)



Method

Top left picture:

- Remove the cap from the bottle (or the pipette from the bottle).
If the fluid is discoloured do *not* use!

Top right picture:

- Ask the patient to look up.
- With the index finger of one hand take a folded swab or paper tissue to **gently** hold down the lower eyelid.

Do not make the eyelid turn out too much as instilled drops may fall out on to the cheek.

Bottom left picture:

- With the bottle or pipette held in the other hand, between thumb and index finger, rest the side of the hand against the patient's forehead above the affected eye.
- With the dropper about five centimetres above the eye, squeeze the bottle or pipette rubber and allow one or two drops to fall inside the central part of the lower eyelid.

Do not allow the drop to fall on to the cornea as this can be painful and may alarm the patient and cause loss of confidence.

Do not allow the bottle or pipette to touch the eyelid skin or eye lashes as it will cease to be sterile and need to be discarded.

Bottom right picture:

- Wipe away any surplus fluid which may emerge when the patient closes the eye.

Finally

Secure the bottle top.

11. Applying Eye Ointment (1)

Indications

To deliver longer-acting topical medication

e.g.

in the case of a child

overnight, following medication by drop instillation during daytime

when an eye needs to be padded for long periods

Indications

- To treat a superficial corneal injury with antibiotic.
- To deliver longer acting topical medication.

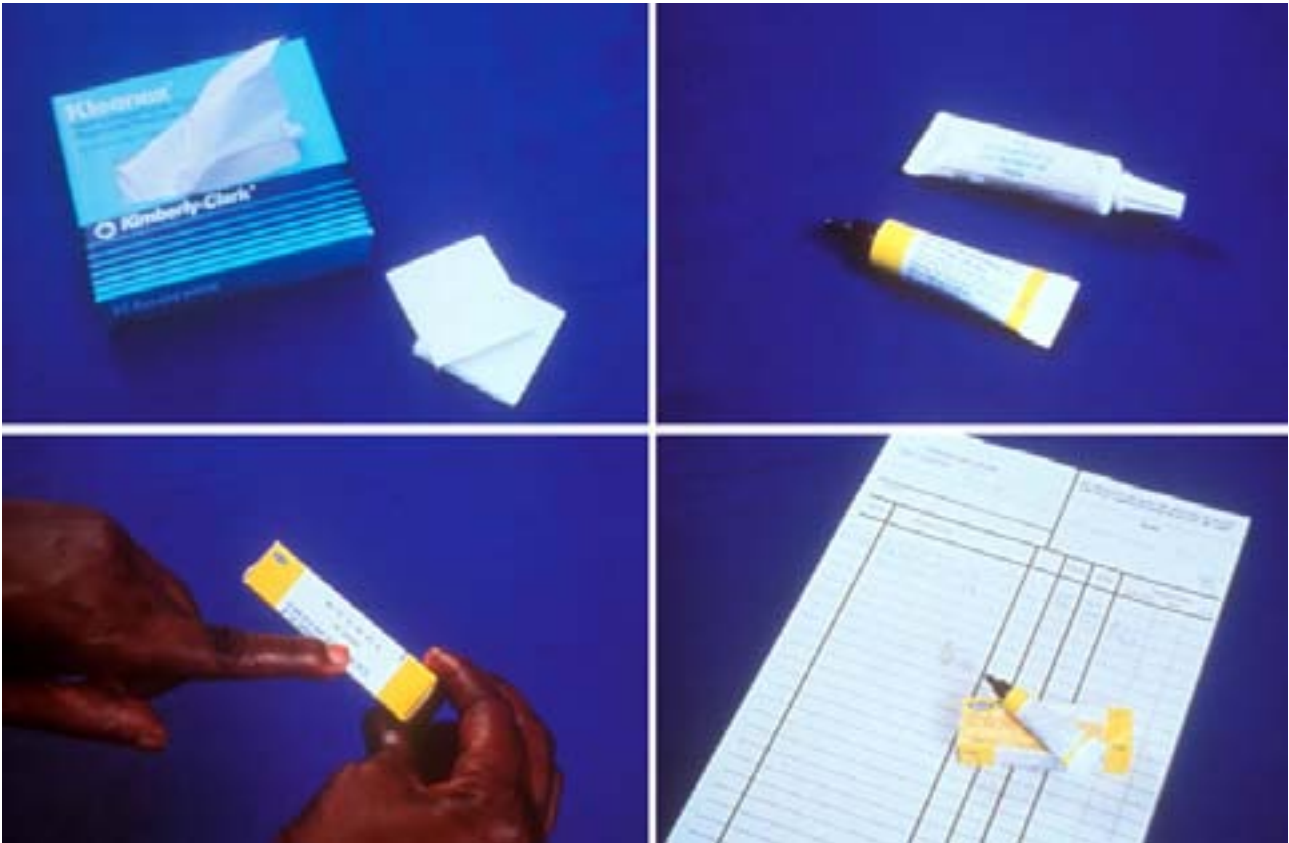
e.g.

in the case of a child

overnight, following medication by drop instillation during daytime

when an eye needs to be padded for long periods

12. Applying Eye Ointment (2)



You will need

Top pictures:

- Clean swab or paper tissue.
- Prescribed eye ointment - produced in varying sizes and colours of tube.

Preparation

Bottom pictures:

- Check that the ointment is not date-expired.

This is not always easy to read on the actual tube so be careful to take time to do this. Some tubes also come in a box where the expiry date is easier to read.

- Check the patient's name and eye ointment against the prescription.

13. Applying Eye Ointment (3)



Preparation

- Remove cap from nozzle.
- Ask the patient to look up.

Method

Top left picture:

- With the index finger of one hand take a folded swab or tissue to **gently** hold down the lower eyelid.

Top right picture:

- With the other hand take the tube of ointment and direct the nozzle towards the inner canthus.

Bottom left picture:

- Squeeze tube slowly to allow about one centimetre to emerge in a thin line along the inside of the lower eyelid. (Rather like putting toothpaste on a toothbrush!)

Do not touch the eye with the tube nozzle!

Do not touch the eyelid skin or eyelashes with the tube nozzle - it will cease to be sterile and need to be discarded.

Bottom right picture:

- *Wipe away any surplus ointment which may emerge when the patient closes the eye.*

Finally

- Secure the nozzle cap.

14. Taping an Eyelid Closed (1)

Indications

- **To protect an eye with an anaesthetic cornea**
- **To avoid exposure keratitis**
e.g. when normal eyelid closure cannot be achieved
- **To aid healing of an epithelial defect**
- **To assist eyelid closure under an eyepad**

Indications

- To protect an eye with an anaesthetic cornea
- To avoid exposure keratitis
e.g. when normal eyelid closure cannot be achieved
- To aid healing of an epithelial defect
- To assist eyelid closure under an eyepad

15. Taping an Eyelid Closed (2)



You will need

- Waterproof adhesive tape - 2.5 centimetres wide
Use only 'lightweight' tape - others are likely to cause allergy on the sensitive skin of the eyelids.
- Scissors

This procedure needs to be very carefully explained to the patient who must understand the aim of the procedure - it can be very alarming to find the eye cannot open!

16. Taping an Eyelid Closed (3)



Preparation

- Ensure the eyelid skin is clean and dry.
- Ask the patient to close both eyes.

Method

Top left picture:

- Cut a piece of tape approximately four centimetres long.

Top right picture:

- Apply the top half of the tape horizontally to the lower half of the upper eyelid from the inner to the outer canthus.

Bottom left picture:

- Secure the bottom half of the tape to the skin below the lower eyelid.

Bottom right picture:

- Check that closure is effective by asking the patient to open the eyes - this should be impossible for the taped eye!
- Reassure the patient again by reminding him/her of the aim of the procedure.

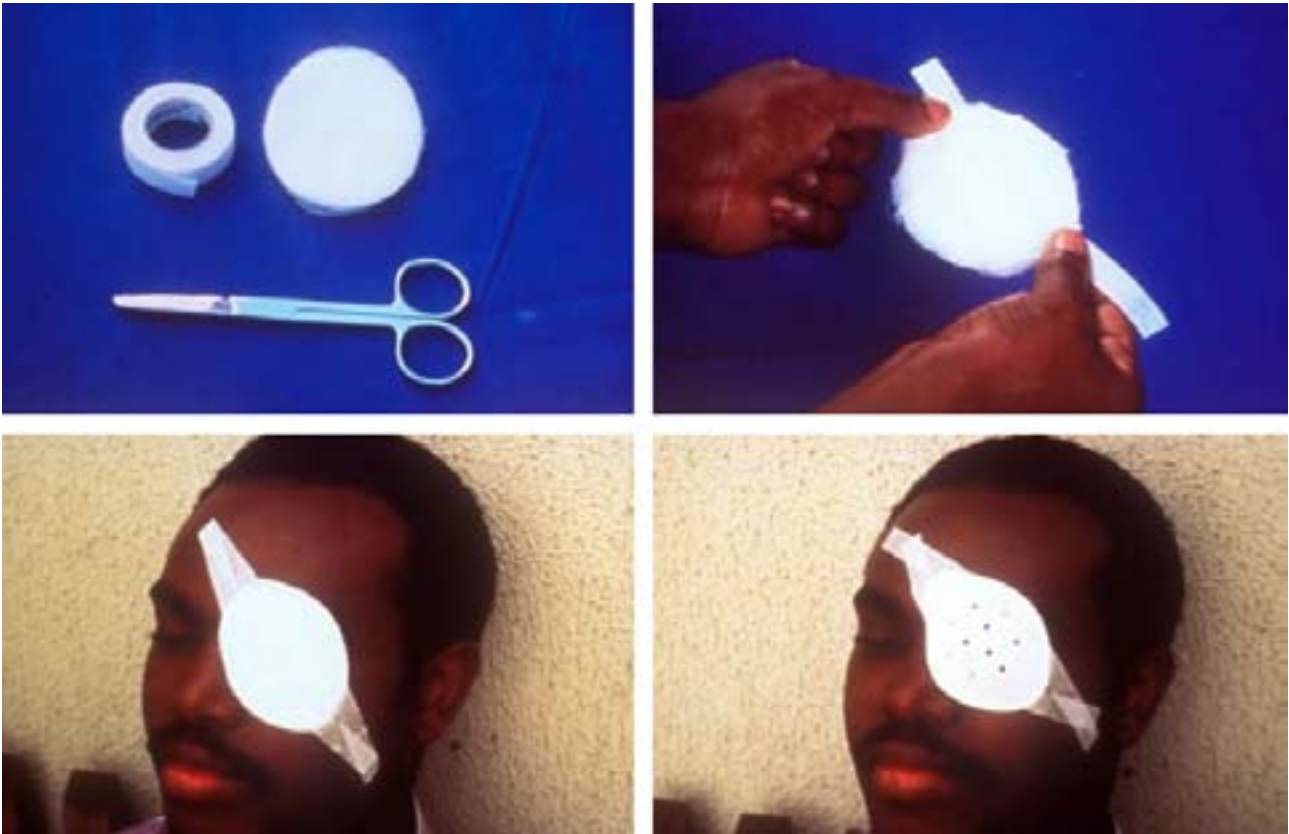
Taping can loosen - replace as necessary.

17. Applying an Eye Pad and Eye Shield (1)

Indications

- **To 'rest' the eye**
e.g. hyphaema, vitreous haemorrhage.
- **To aid healing following trauma**
e.g. corneal abrasion.
- **To protect the eye**
e.g. following surgery and procedures requiring corneal anaesthesia.

18. Applying an Eye Pad (2)



You will need

Top left picture:

- Adhesive tape
- Eye pad
- Scissors

Preparation

It is important to remind the patient to try not to open the affected eye under the pad.

If the eyelids do not close naturally over the cornea it will be necessary, before padding, to achieve closure with taping. This procedure is explained earlier in the text.

Method

Top right picture:

- Apply a piece of adhesive tape, about fifteen centimetres long, to the eye pad - as shown in the picture.
- Ask the patient to close both eyes.

Bottom left picture:

- Position the eye pad diagonally over the closed lids and secure the tape to the forehead and cheek.
- Apply a second and third piece of tape, as shown in the picture, to ensure the eye pad lies flat.

Bottom right picture:

- Eye protection can also be given with an eye shield. The shield shown in the picture is produced commercially and is called a 'Cartella shield'.

Eye pads and eye shields, if not available ready-made, can be made very easily as follows:-

19. Making an Eye Pad



You will need

Top right picture:

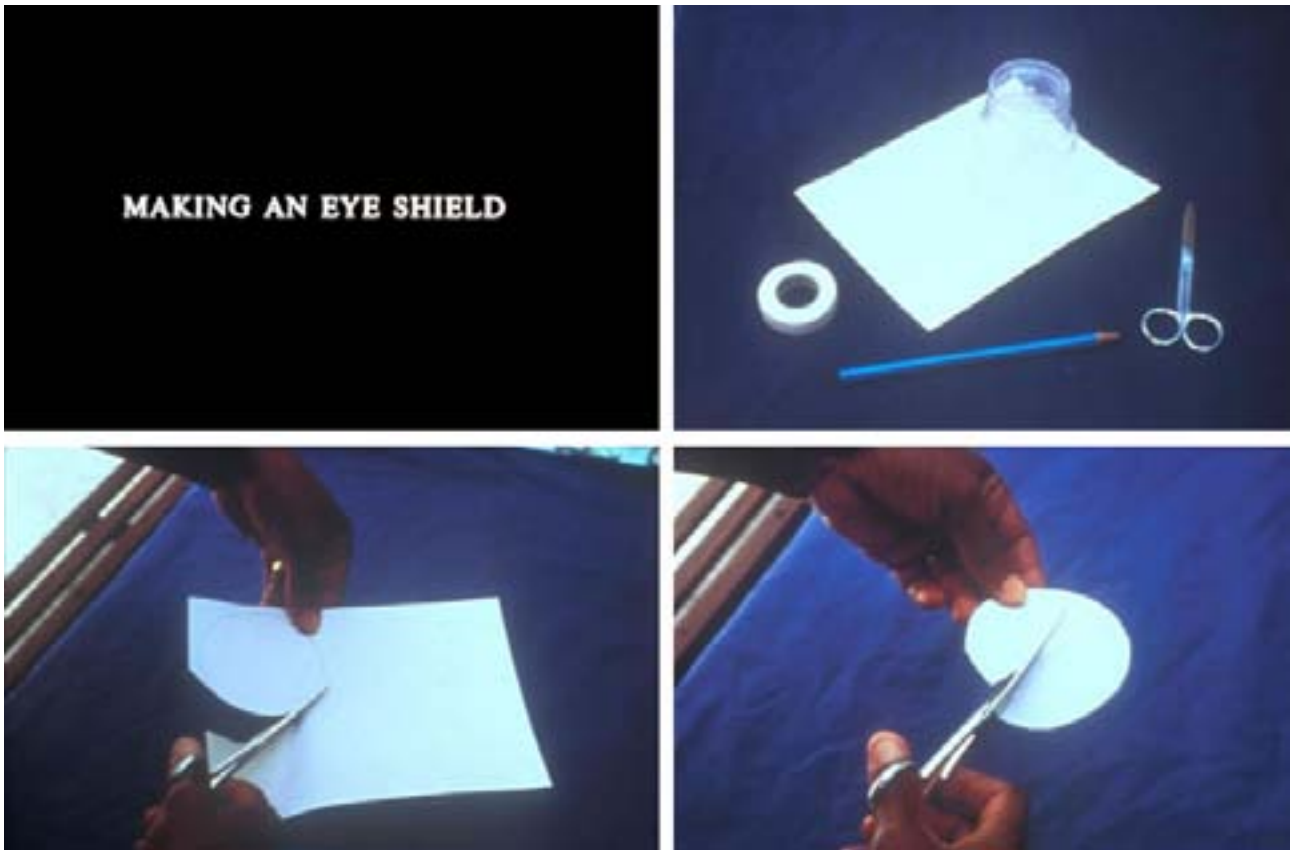
- Cotton wool
- Two pieces of gauze
- Scissors

Method

Bottom pictures:

- Place the cotton wool between the two pieces of gauze.
- Cut the cotton wool and gauze into an oval shape measuring approximately 5×6 centimetres.

20. Making an Eye Shield (1)



You will need

Top right picture:

- Adhesive tape
- Thin cardboard or old X-ray film
- Circular object - (e.g. cup or glass) approximately eight centimetres in diameter.
- Pencil
- Scissors

Method

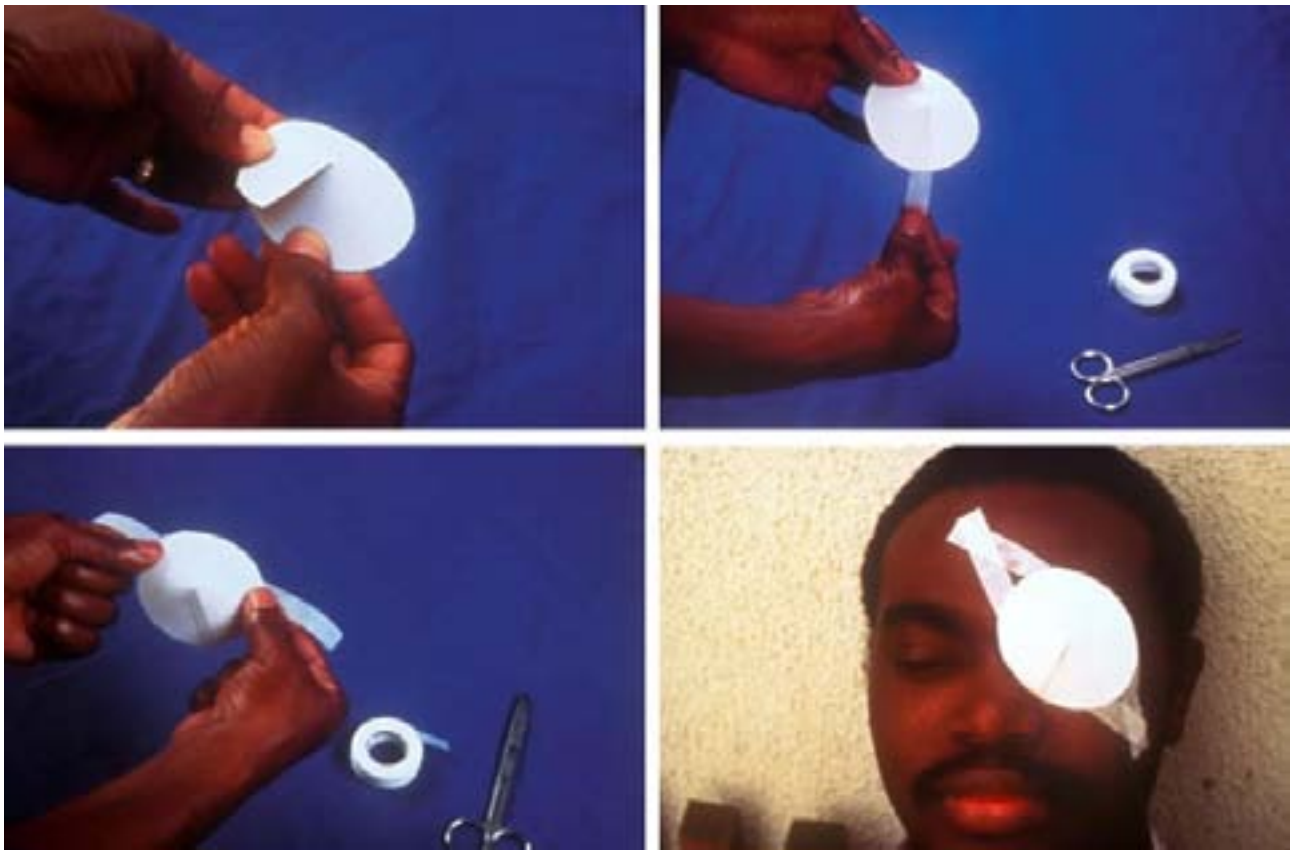
Bottom left picture:

- Draw a circle on the cardboard and then cut around it.

Bottom right picture:

- Make a single cut into the centre, i.e. half the diameter of the circle.

21. Making an Eye Shield (2)



Top left picture:

- Make the cardboard into a cone shape

Top right picture:

- Secure the cone shape with adhesive tape

Bottom pictures:

- To apply - attach one piece of tape to the cone and place over the affected eye.
- Add a second piece of tape to secure the shield.

22. Applying an Eye Bandage (1)

Indications

To give extra protection or pressure over an eye pad

e.g.

to arrest haemorrhage

to reduce swelling after eyelid trauma

following local anaesthetic

following eye surgery

Indications

To give extra protection or pressure over an eye pad

e.g.

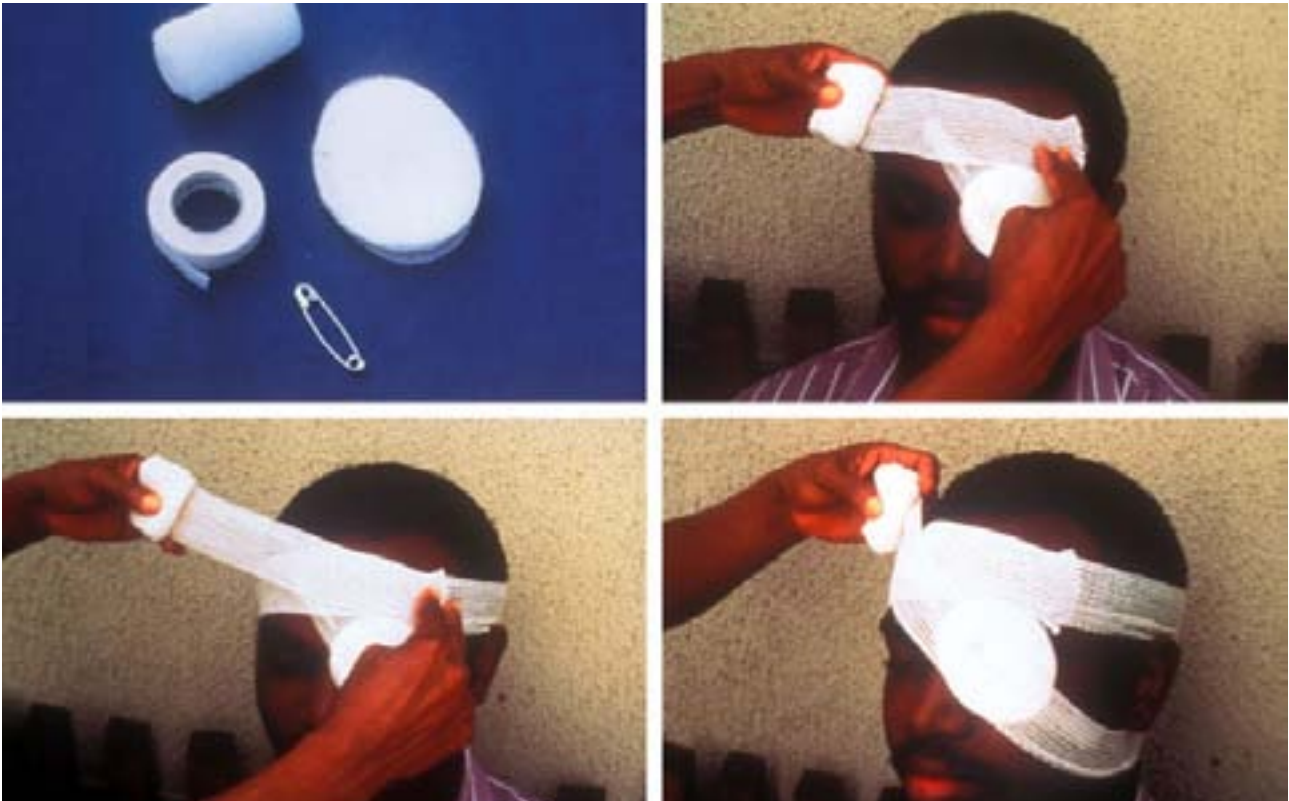
to arrest haemorrhage

to reduce swelling after eyelid trauma

following local anaesthetic

following eye surgery

23. Applying an Eye Bandage (2)



You will need

Top left picture:

- Bandage - five centimetres wide
- Eye pad
- Adhesive tape
- Safety pin

Method

- Apply the eye pad. This procedure is explained earlier in the text.

Top right picture:

- Hold the rolled bandage in one hand with the opened end, held by the other hand, on the forehead above the affected eye.

Bottom left picture:

- Take the bandage, directed away from the affected eye, twice around the head firmly, but not tightly.

Bottom right picture:

- On the second circuit, bring the bandage below the ear and up over the eye and around the head again.

Notice how the bandage can partially obscure the other eye! The next slide will show how to avoid this.

24. Applying an Eye Bandage (3)



Top left picture:

- Place the index finger to hold up the bandage just above the eyebrow.

Top right picture:

- Take the bandage around the head and then below the ear and up over the eye again - each time making sure it does not obscure the other eye as explained above.

Bottom pictures:

- Finish the bandage on the forehead and secure with adhesive tape or a safety pin.

Do not use a safety pin if the patient is a young child or an elderly person.

Acknowledgements

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