

Reducing the risk of infection: hand washing technique

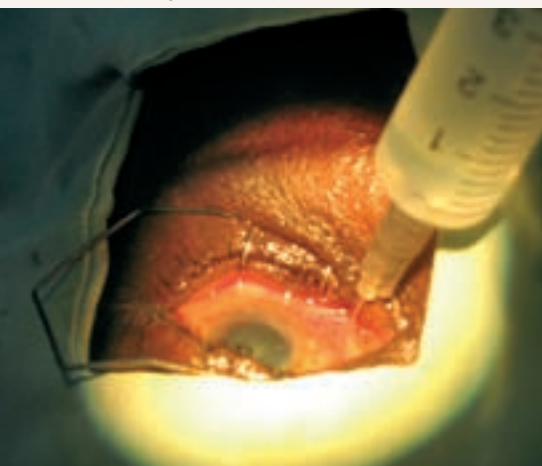
Sub-Tenon's block

- Prepare 2 to 3.5 ml of anaesthetic solution.
- Instil one drop of anaesthetic eye drops. A small swab soaked in topical amethocaine and left in the lower fornix for a minute is particularly effective.
- Cauterising the space before incision is extremely helpful in limiting both the risk of subconjunctival haemorrhage and that of an unintended extension of the incision. To do this, gently apply the bipolar cautery, barely touching but not pressing down on the conjunctival surface. This also helps to lift the Tenon's capsule away from the sclera.
- Use a pair of spring scissors to make a small (0.5 mm long) snip through both the conjunctiva and Tenon's capsule, 2 to 3 mm behind the limbus in the inferomedial quadrant of the globe. The scissors should not be opened more than halfway. It is essential to find the sub-Tenon's plane, i.e. to dissect down to bare sclera. It helps to hold the scissor blades so that their plane is perpendicular to the ocular surface instead of being parallel to it (Figure 5).
- Use a specially designed blunt cannula to inject the anaesthetic. However, if you do not have a specially designed cannula, a lacrimal cannula is a suitable alternative. Mount the cannula on a syringe containing the anaesthetic solution.
- Pass the cannula through the snip incision. The incision should fit tightly around the cannula.
- Advance the cannula backwards with its tip touching and following the curvature of the globe all the way to the retrobulbar space. As the equator is passed, the hand and syringe need to rotate away from the globe so that the cannula tip stays in the space (Figure 6).
- Inject the anaesthetic carefully.

Reference

- 1 Eke T, Thompson JR. Serious complications of local anaesthesia for cataract surgery: a 1-year national survey in the United Kingdom. *Br J Ophthalmol* 2007; 91(4): 470-5.

Figure 6. Sub-Tenon's block: the hand and syringe is rotated away from the globe as the equator is passed so that the cannula tip stays in the space.



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Hand washing is a fundamental principle of infection control

Eyes are susceptible to infection by many organisms, including gram-negative bacilli, adenoviruses, the herpes simplex virus, and fungi. Infection puts eyes at higher risk of complications after cataract surgery.

Hand washing is the most important, fundamental principle of infection control. It must be strongly encouraged and practised by all disciplines in the health care setting.

Hand washing is required in the following situations:

- before any aseptic procedure
- before and after handling any patient
- after handling any soiled item
- before and after handling food
- whenever hands are, or even feel, soiled
- when entering and leaving a clinical area
- after using the toilet or assisting a patient in the toilet

Many health care workers are unaware of the need for frequent hand washing and that a certain technique is required for hand washing to be effective.

Written instructions for hand washing, as given below, should be displayed in all clinical areas.

- Wet hands with clean, preferably running, water
- Apply soap or cleanser
- Rub palm to palm
- Rub back of left hand over right palm
- Rub back of right hand over left palm
- Rub palm to palm with fingers interlaced
- Rub backs of fingers on opposing palms with fingers interlocked
- Rub around right thumb with left palm
- Rub around left thumb with right palm
- Rub palm of left hand with fingers of right hand
- Rub palm of right hand with fingers of left hand
- Rinse off soap with clean, preferably running, water, and dry well.



Rub palm to palm



Rub back of left hand over right palm and vice versa



Rub palm to palm with fingers interlaced



Rub backs of fingers on opposing palms with fingers interlocked



Rub around right thumb with left palm and vice versa



Rub palm of left hand with fingers of right hand and vice versa