BANDAGE CONTACT LENSES (BCLs)

BCLs are extended wear soft lenses fitted for therapeutic purposes rather than refractive purposes.

Indications for Bandage Contact Lenses (BCL’s)

Corneal problems
- Filamentary keratitis
- Keratoconjunctivitis sicca
- Recurrent corneal erosion
- Corneal abrasion

Lid problems
- Ectropian
- Entopian
- Trichiasis

Conjunctiva
- Conjunctival scarring
- Symblepheron
- Stevens Johnson syndrome

Post surgical
- Post Corneal graft
- Post Phototherapeutic keratectomy
- Post trabeculectomy leaking bleb
- Post Collagen cross-linking

Understanding Contact lens specifications and parameters.

What do the numbers on the box mean?

- E.g. Purevision 8.60/ 14.00/ plano
- The first number is the back optic zone radius BOZR of the lens i.e. 8.60mm
- The second number is the total overall diameter of the lens i.e. 14.00mm
- The final number is the back vertex power in dioptres.
How to choose the most appropriate lens and check fitting

- Cantor and Nissel *Hydrolens 67 and 77* (% water content) These lenses are good for larger and smaller diameters from 11.00 to 20.00 and come in several water contents.

- Silicon hydrogel eg *Purevision, Night and Day*, tend to be smaller diameter lenses. They have a higher oxygen transmissibility (DK/T) but are more rigid and reportedly can be less comfortable.

- Check the lens fit at the slit lamp on 10x magnification:
  - Does the lens cover the cornea and limbus in all directions of gaze?
  - For good tear exchange ensure that there is at least 0.25-0.5 mm of movement on blink and up to 1.0mm on upward and lateral gaze. This will be less if it is a daily disposable.
  - The lens should recover rapidly on vertical displacement (the push-up test)

*Tip*: for inserting larger diameter lenses get the patient to look down and insert under the top lid first.

*Note*: For extended wear the lens will tighten overnight so it is very important to ensure the lens is not too steep (tight)

**Suggested first choice lens (This will vary between patients)**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Good first lens choice</th>
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<tbody>
<tr>
<td>RCE or Corneal abrasion</td>
<td>8.60/14.00/plano Purevision</td>
</tr>
<tr>
<td>Lid conditions eg Trichiasis, Entropian, Ectropian</td>
<td>9.20/16.00/plano <em>C&amp;N Hydrolens 67</em></td>
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<tr>
<td>Post Corneal Graft</td>
<td>8.80 to 9.40 / 18.0 to 20.0 <em>C&amp;N Hydrolens 67</em></td>
</tr>
<tr>
<td>Leaking trabeculectomy bleb</td>
<td>9.00 to 9.40 / 20.0 to 22.0 <em>C&amp;N Hydrolens 67</em></td>
</tr>
<tr>
<td>Post collagen cross- linking</td>
<td>9.00/15.50/plano <em>C&amp;N Hydrolens 67</em></td>
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Remember when you increase the lens diameter the lens steepens on the eye so you have to increase (flatten) the base curve to compensate.
What to do if the lens does not fit

Scenario 1: The lens is too loose/flat
i.e. the lens is de-centering, the lens edge is lifting

1) Reduce the back optic zone radius (BOZR) i.e. switch from 8.6 to 8.30  
   AND/OR  
2) Increase the diameter 14.00 to 14.50

Scenario 2: The lens is too steep (tight)
(very little lens movement the patient will feel this lens is comfortable)

1) Increase the back optic zone radius (BOZR) eg. 8.60 to 8.80  
   AND/OR  
2) Decrease the lens diameter 14.00 to 13.50

A change in diameter of 0.5mm = A change in radius of 0.2mm

- **Which is the most suitable topical treatment**
  - Most patients requiring BCLs will also need co-incident topical treatment, usually prophylactic antibiotics.
  - Consider Preservative-free where possible
  - Benzalkonium chloride (BAK) is the most commonly used preservative but is toxic to the cornea and destabilises the tear film in concentrations over 0.004%. With a contact lens in situ the preservative can leach into the eye in a prolonged manner causing further discomfort and damage to the lens.
  - Remember Flourescein discolours the lens and can increase the risk of infection.

Timetable for Follow-up care

- The follow-up appointment depends upon the type of contact lenses used
- A monthly disposable contact lens will need a review in no more than 4 weeks
- A non-disposable lens can be left *in situ* for up to 6-8 weeks maximum
- A daily disposable lens is **not** suitable as a bandage contact lens
Advice to patients

Bandage contact lens leaflets are available in the drawers beside the contact lens cupboard and should be given to each patient,

- You should always AVOID swimming, using hot tubs or take part in water sports.
- You should NOT splash water in your eyes or get your eyes wet whilst wearing your BCLs when showering or washing.

If you have any of the following signs or symptoms please contact us to discuss whether we need to see you sooner than your existing appointment:

- INCREASING PAIN IN YOUR EYE
- INCREASING REDNESS OF YOUR EYE
- REDUCING VISION
- STICKY DISCHARGE FROM YOUR EYE
- LOST BANDAGE CONTACT LENS

HOUSEKEEPING ISSUES

1) Please give BCL information sheet to the patient with the patient sticker on and the specifications of the bandage contact lens issued

2) Please always document in the patient records the specifications of the bandage lens issued or stick the label from the lens bottle/vial in the notes