



DAILY WEAR LENS FOR KERATOCONUS FITTING GUIDE



### The EpiCon LC Contact Lens

The EpiCon LC is a large diameter lens specifically designed for fitting keratoconus patients. EpiCon LC is easy to fit and has significantly improved comfort compared to conventional designs. It is ideal for situations where good centration and comfort are difficult to achieve. The lens is lathe cut at our Brisbane laboratory.

# **Lens Specifications**

Total Diameter: 13.50mm
Base curves: 5.60 to 8.00mm

Lens Periphery: steep (C), median (D), flat (E), extra flat (F)

Powers: to Rx

Trial Set: 21 lenses (7 base curves, 3 peripheries: C,D,E)

# **EpiCon LC Fitting Concept**

Corneal irregularities due to keratoconus are masked by vaulting the central cornea, allowing light apical touch and aligning the periphery so that tear exchange is possible without allowing bubbles to penetrate under the central portion of the lens.

Fitting should start with a routine eye exam followed by a trial lens fitting. The fit should be evaluated with both white light and with fluorescein. The power is determined with an over-refraction. Follow-up visits should be carried out as for any keratoconic RGP wearer.

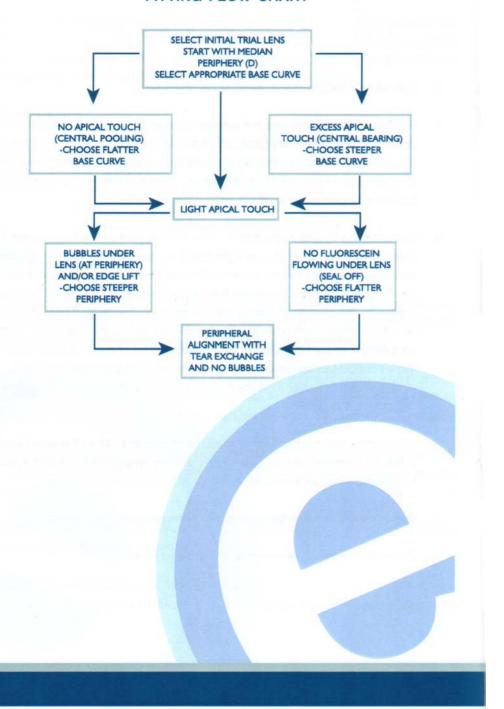
In some circumstances, EpiCon LC may also be used for the fitting of corneal grafts or other unusual corneal topographies, providing the corneal centre is very steep and the periphery normal.

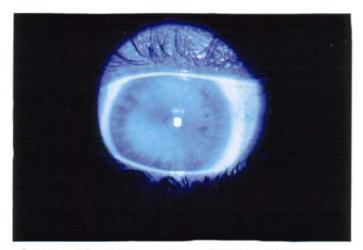
The sag and amount of touch is adjusted by choosing steeper or flatter base curves while maintaining peripheral alignment.

- Select the initial diagnostic lens accordingly:
  - For emerging keratoconus (Flat K flatter than 7.00mm) select 7.60
     Median

- For mild/moderate keratoconus (Flat K between 7.00-6.50mm) select
   7.20 Median
- For severe keratoconus (Flat K steeper than 6.50mm) select 6.40 Median
- 2. Following insertion steps, insert appropriate lens.
- 3. Evaluate the position and movement with white light. The lens should move about 0.25mm in primary gaze with the blink, and centre itself over the cornea. If bubbles are noticed, determine whether they are due to a flat periphery or if they were caused by a faulty insertion. Remove the lens and reinsert if the bubble was caused by faulty insertion.
- 4. Evaluate the fit with fluorescein. The central part of the fluorescein pattern should show an area of very light touch no larger than 2mm in diameter. If excessive touch is present, increase the sag by choosing a steeper base curve. If no touch is present, decrease the sag by choosing a flatter base curve. It is normal for the cone to be surrounded by an area of pooling. The periphery of the lens must allow fluorescein to pump under the lens with a few blinks. If the lens periphery is sealed off, a flatter periphery must be chosen. If the lens periphery allows bubbles to penetrate under the lens, choose a steeper lens periphery. In most cases it is better to fit the flattest periphery that allows good movement, centration, and comfort.
- Follow the flow chart until a satisfactory fit is found. Allow the lens to settle for at least 30 minutes and check the fit again. Pay special attention to the peripheral fit, ensuring that lens movement and tear exchange is occurring.
- 6. Perform an over-refraction to determine the power to be ordered.
- 7. Order: EpiCon LC / Base curve / Periphery / Power

# FITTING FLOW CHART

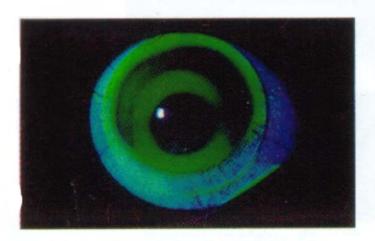




Good fit: feather touch, peripheral alignment



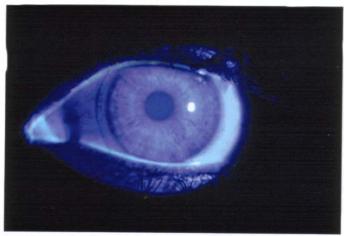
Steep base curve: excessive corneal vaulting



Flat base curve: excessive central touch



Flat periphery: excessive edge-lift and bubbles



Steep periphery exhibiting seal off

## Contraindications

The EpiCon LC lens is contraindicated in the presence of:

- Any diseases affecting the cornea, conjunctiva or lids other than keratoconus and conditions secondary to keratoconus.
- 2. Corneal hypoaesthesia.
- Any systemic disease which may affect the eye or be exaggerated by contact lens wear.
- 4. Acute or sub-acute inflammation of the anterior chamber of the eye.

## **Lens Insertion**

- Prior to placing the lens on the eye, apply several drops of the recommended solution to both surfaces of the lens, thoroughly wetting them. Place the lens on the tip of index and middle fingers. Fill the lens with the recommended solution.
- 2. Gently pull up the upper lid until the entire cornea is exposed. Instruct the patient to pull down the lower lid and to lean forward bringing their head into a horizontal position (looking at the floor)

- Slowly bring the lens towards the eye. When the wet surface of the lens touches the natural fluid layer of the eye, there will be an immediate attraction of the lens to the surface of the eye.
- 4. When the lens has settled in place, release the lids slowly and instruct the patient to continue looking down for several seconds.

### **Lens Removal**

- 1. Instruct the patient to look down while gently pulling the upper lid up and above the contact lens edge with the index and middle fingers. At the same time, place the index finger of the other hand on the lower lid margin. Slowly have the patient look up and gently push in and down with the two fingers on the upper lid, pushing the lens off the cornea. As the contact lens begins to lift off the eye, push with the lower lid margin up and expel the lens from the eye. It is important to have the fingers positioned right on the lid margin.
- 2. EpiCon LC can also be removed using a standard 'DMV' lens removal device. The lens remover should be gently applied to the inferior portion of the lens while the patient looks straight ahead. Alternatively, it may be applied to the superior portion of the lens. While the patient looks down. Do not apply the lens removing device directly to the centre of the lens, as this may increase the difficulty of lens removal. The lens can then be gently lifted off the eye. Caution: Under no circumstance should fingernails be used to pry the lens loose or move it back in place.

#### **Decentred Lens**

In rare instances, a lens may become displaced onto the sclera. Looking in a mirror, patients should locate the lens by pulling the lids apart as widely as possible. While looking in the opposite direction of where the lens is located, patients should pull the lid margin up or down to get it beyond the lens edge and then gently remove the lens with a lens remover.

# Capricornia

From within Australia 1300 650 994
From within New Zealand 0800 777 118
From outside Australia 61 (7) 3208 8500

Email: info@capricorniacontactlens.com.au Web: www.capricorniacontactlens.com.au



