

#### Designed For No7 By Dr Caroline Burnett-Hodd

Comfort 15 lens is a mini-scleral lens from No7.

Comfort 15 has been designed to make fitting a mini-scleral lens easier than ever before. There are only two fitting parameters to consider, sag and edge profile. This speeds up the fitting process and therefore saves chair time.

Comfort 15 is ideal for practitioners new to minisclerals or those looking for a low cost alternative to more complex designs.

The 15mm diameter makes for straight-forward insertion to the majority of eyes. Mini-scleral lenses have the advantage over corneal RGP lenses in that they provide good initial comfort and they are fitted to vault the irregularity which minimises scarring. However, they still provide the vision of rigid lens. Because mini-scleral lenses fit over the cornea, limbus and land all of their weight on the sclera the keratometry or topography of the central cornea is not relevant to the fitting. Instead the lens needs to be fitted to the sagittal depth of the eye.

# Why Comfort 15?

- No bearing on the corneal surface
- Fantastic comfort due to scleral landing
- Simple to fit
- Low price
- Optimum Extra material for excellent wetting,
- Visual acuity of a rigid lens
- Available on lenses for life

#### **Indications**

- First fit for irregular corneas such as KC, PMD, Post Graft, Post Lasik, Ectasia
- Refits for patients wearing RGP's but looking for better comfort
- Refits for patients wearing soft lenses but needing improved vision
- Patients with mild to moderate ocular surface disease and dry eye
- Patients with high cyls requiring excellent vision and comfort
- Patients who need to wear lenses in dusty environments

Material	Optimum Extra (Roflufocon D) (Blue & Clear)	
DK	100	
Sag	3.4 to 5.1 in 20 micron steps	
Power	+25.00 to -25.00 (0.25 steps)	
Wearing Schedule	Daily	
Replacement	Annual	
Lens Care	Cleaning solutions for soft lenses, No7 recommends Oté Sensation & Oté Clean	



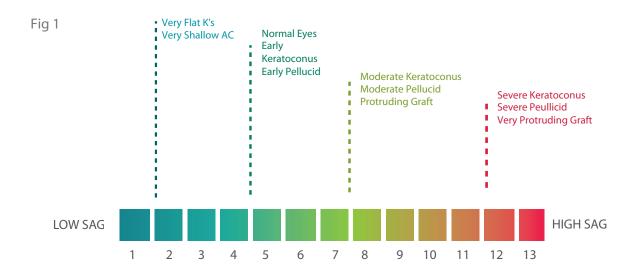
# Fitting Guide

The Comfort 15 fitting set contains 13 lenses with depths ranging from  $3500\mu m$  to  $5000\mu m$  in  $125\mu m$  steps. The aim of the fit is to find the lens that exceeds the sagittal depth of the eye by around  $100-150\mu m$ .

## Choosing The First Trial Lens

The Comfort 15 lens cannot be fitted empirically as keratometry and topography do not give a good indication of sagittal depth. However, the first trial lens can be chosen based on the eye condition to be fitted.

Use the chart in fig 1 to pick the first trial lens.



#### Insertion

Lenses must always be inserted full to the brim with saline. Fluorescein must be added to the bowl of the lens prior to insertion as it will not get behind the lens after insertion.

The patient should be bent forward with their nose pointing towards the floor and their chin tucked in. The lens can either be supported on a tripod of three fingers or on a DMV inserter



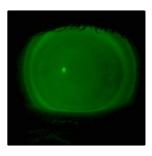


#### **Ideal Fit**

Sagittal depth of the lens exceeds depth of the eye by 100µm

A good fit will show: -

- Low vaulting of the cornea
- No edge lift
- No scleral impingement
- Mid-peripheral clearance
- Limbal clearance



**Ideal Fit** 

#### Fitting Tip

If there is limbal touch add 2.5D of reverse curve remember to alter the power to compensate) to increase limbal clearance

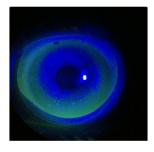


## Shallow / Flat Fit

Sagittal depth of the lens is less than the sagittal depth of the eye

A flat or shallow fit will show: -

- Edge lift
- Central bearing
- Discomfort



Shallow / Flat Fit

#### Action

Remove the lens and insert a lens with a higher sag (a deeper lens)

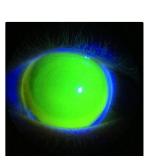


# Deep / Steep Fit

Sagittal depth of the lens exceeds the sagittal depth of the eye

A deep or steep fit will show: -

- Excessive central NaFL pooling
- Central bubble
- Scleral impingement



Deep / Steep Fit

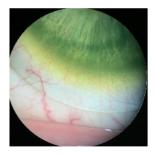
#### Action

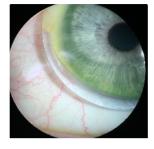
Remove the lens and insert a lens with a lower sag (a more shallow lens)



## Assessing The Edges

To asses the edge of the lens, push the inferior sclera just below the edge of the lens. If the lens flares away very easily, it is flat. If it takes a significant push to get any flaring away of the lens, the edge is tight or the lens is too deep







Ideal Edge

Flat Edge (Fig.1)

Steep Edge (Fig.2)

If the ideal vaulting lens shows edge impingement or scleral blanching (Fig.1) order the lens with a flatter edge option.

If the depth of the lens appears correct but the edge stands off (Fig.2) order the lens with a steeper edge.

# Flat Eyes / Sunken Grafts / Post Refractive Surgery

After a corneal graft or refractive surgery many corneas become flat in the centre whilst the periphery and sclera retain their original shape. This shape, where the eye becomes steeper in the periphery, is known as an oblate cornea.

For corneal grafts or refractive surgery, where the centre of the cornea has become flatter than the periphery, it is possible to modify the shape of the Comfort 15 to give a reverse geometry lens by flattening the central curve whilst keeping the sagittal depth and periphery the same.

The ideal trial lens fit is expected to show bearing in the mid-periphery due to the shape of the eye. The lens matches scleral and limbal shape and sagittal depth of the eye.



**Post Surgery** 



Comfort 15 Reverse Geometry Lens



Comfort 15 Normal Trial Lens

## Ordering The Lens

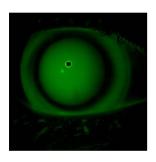
The lens should be ordered with a reverse curve option. In the first instance, try 5 dioptres of reverse curve. If the midperipheral bearing is very heavy, try 10 dioptres.

# Post Surgery, Trial Lens Fit

The trial lens will show mid-peripheral bearing but will match scleral and limbal shape/ The amount of touch helps determine the amount of reverse necessary.

# Post Surgery, Ideal Reverse Geometry Ordered Lens Fit

The lens supplied by No7 will have a flattened central curve that should eliminate mid-peripheral bearing. It should have a NaFL pattern similar to the ideal keratoconic or normal fit.



Reverse Geometry Fit



Comfort 15 Trial Lens Fit

Comfort 15 Reverse Geometry Lens Fit

#### Power Of Ordered Lens

The power of the lens will be altered to compensate for the flattened central curve

## Shallow, Flat and Deep Fits

Shallow, flat and deep fits can be assessed in an identical manner as for a keratoconic fit. If there is still significant mid-peripheral bearing, reorder with more reverse curve

### **Care Solutions**

RGP Solutions are too viscous for use with Comfort 15. Soft lens solutions such as Oté Sensation work well with daily cleaning using Oté Clean

No7 recommends annual replacement of Comfort 15, please contact us for details.



## Fitting Summary

- Find the correct depth of lens
  - Determine the fitting lens that gives correct sagittal depth
- Allow the lens to settle

  Ideally the lens should be allowed to settle for 60 minutes. If there is bearing, increase the depth of the lens before continuing
- Assess the edge

  If the edge of the lens appears tight, order with the flat edge option
- Perform an over-refraction

  Perform an spherical over refraction Consider over-specs if there is residual cyl
- Assess reverse curve

  Order reverse curve to create a reverse geometry lens. In addition, whenever there is not a clear band of clearance in the mid-periphery / limbus then a small amount of reverse curve (2.5D in the first instance) is required to lift the lens off the area
- Fine tune the sag

  You may add extra sag or decrease the sag in 20 micron steps up to 100 microns
- Order the lens
  Order the lens stating the lens sag, power, diameter and any reverse curve required or changes to the edge

# The Comfort 15 Fitting App

The Comfort 15 fitting app is available on the No7 website and can be used to calculate the required lens.

Alternatively, if you would like our technical team to calculate the lens for you, please contact us on 01424 850620

Comfort 15 Fitting App

Right Lens		Left Lens		
final filled lens number:	No right loss V	Final filted lens number	No left less V	
Enter over-refraction.		Enter over-refraction.		
Choose material:	Optioner Falsa Clear M	Choose material:	Optiones Entry Clear V	
Advanced Options  Select lens dameter (LSmm std)   TKD V		Activation	ed Options	
Select term diameter (LSmm std)				
	STD - standard V	Change to edge curve:	STD - standard V	
Select lens diameter (L'Smm sid) Change to edge curve: Changes to sagital depth:				

CALCULATE