

## Translating bifocal GP – “can’t read” trouble shooting

Michael Baertschi M.Sc., Michael Wyss M.Sc., Simon Bolli eidg.dipl.Augenoptiker, Marc Fankhauser eidg.dipl.Augenoptiker

kontaktlinsenstudio baertschi  
Hirschengraben 11  
3011 Bern  
Switzerland

### Introduction

There are many Presbyopia solutions on the GP market today. Translating GP designs offer in general fantastic clear images for distance and reading purposes. However if the reading portion translates under the lower lid while reading, near visual acuity will be decreased dramatically. This article will discuss fitting options to solve an inferior dislocated reading segment.

### Problem solving

Reasons for an inferior translating reading segment are as follows: big lid aperture, position of lower Lid below Limbus and flabby lid structures. Mean goal is to disable the lens translating underneath the lower lid during reading gaze. Just positioning the segment higher, will not success due to the fact that the lens itself still has the opportunity to translate underneath the lid..

Possible strategies include 3 different modifications, all of them concentrate on the inferior part of the GP lens. Simple truncation of the inferior quadrant of the GP lens, lead the lens gently riding on the lower lid margins (Figure 1) Drawback is the foreign body sensation on the lid margin, higher risk of loosing the GP and that the lens will rotate in the direction of the lid margins angle. Worst case scenario would be a temporal tilted reading segment.

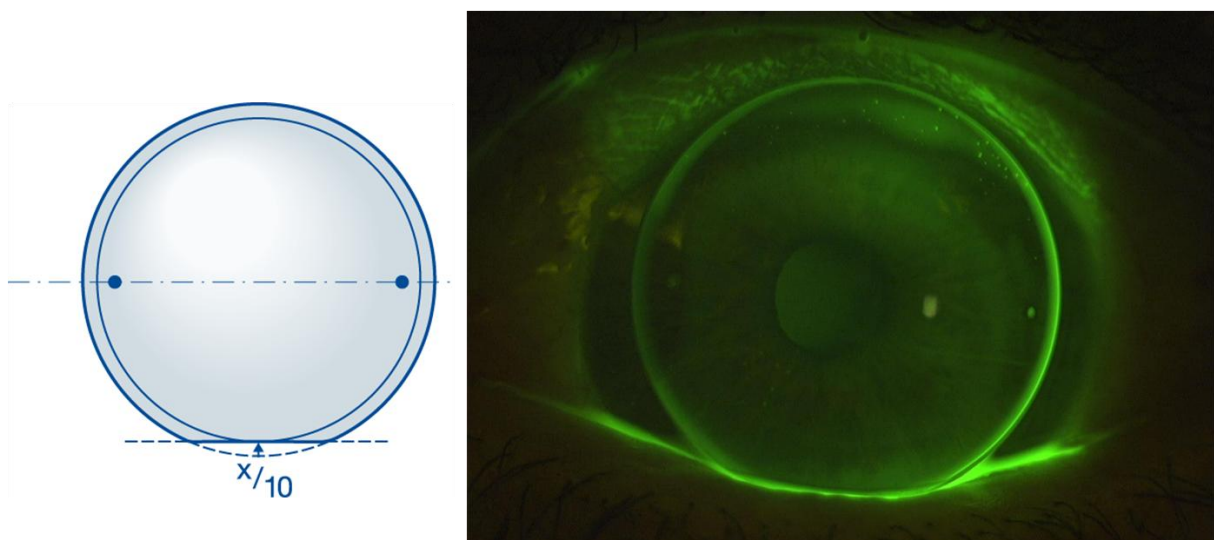
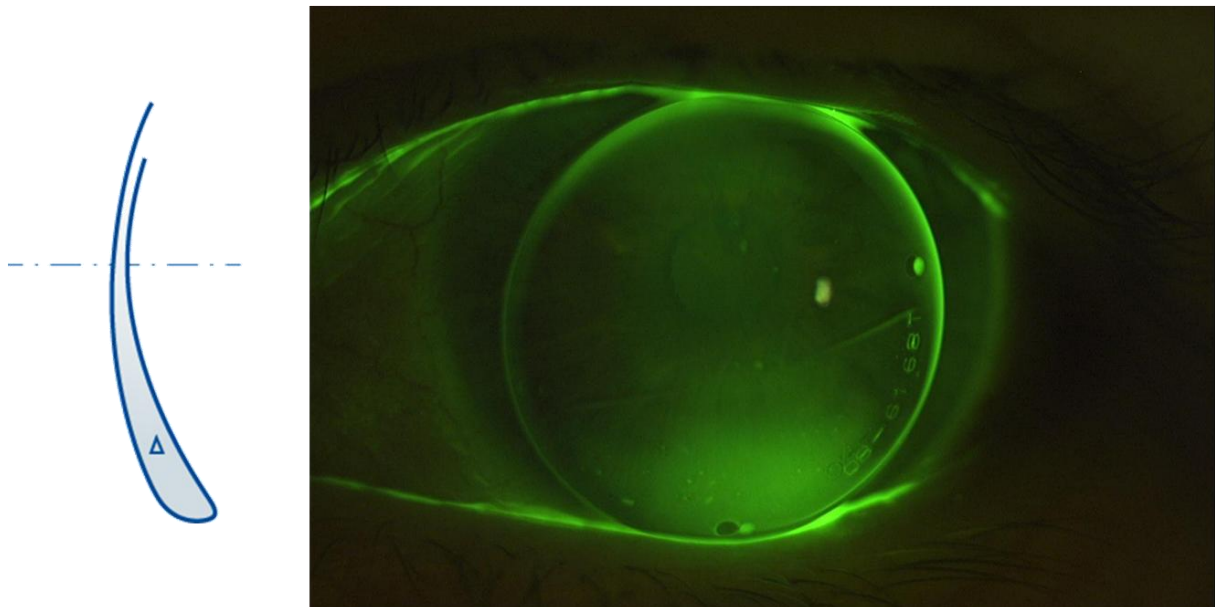


Figure 1: Problem Solving 1 - Truncation in 270°

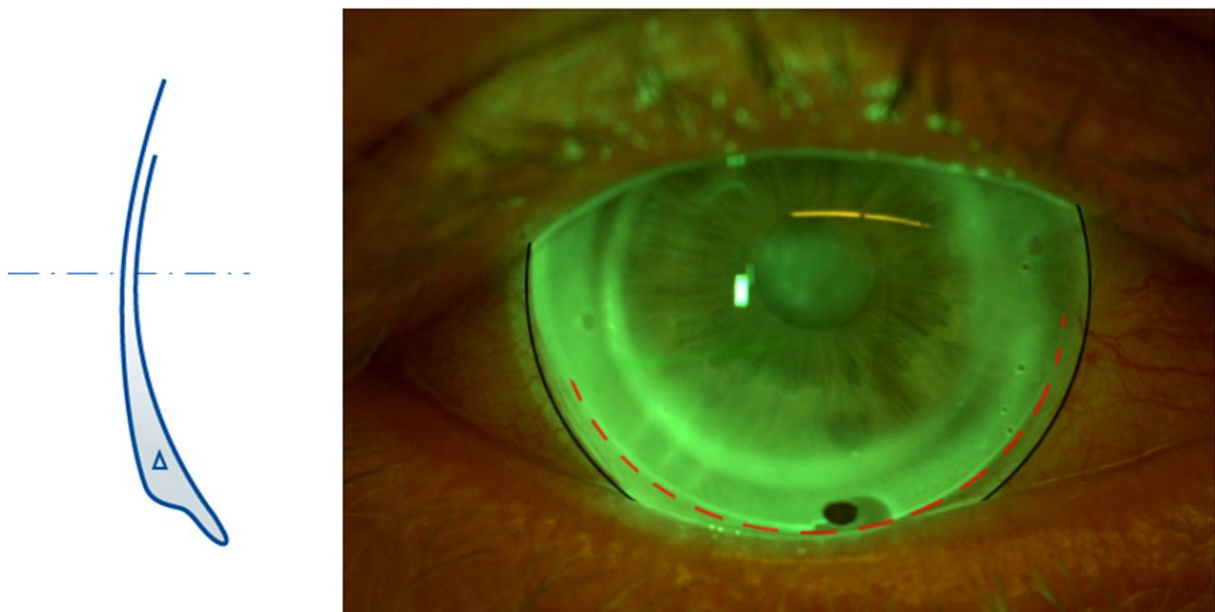
In a case with a big lid aperture, truncation of the lens will additionally lower the reading portion to an intolerable level.

Creating a shelf (Figure 2) in the inferior part of the lens has almost the same effect as a truncation, but reaches the more inferior positioned lid margins better. Additionally the lid margin angle does not matter the same amount like it would do for truncation.



**Figure 2: Problem Solving 2 - Shelf in 270°**

The lens still will induce a higher foreign body sensation and has a slightly higher risk of getting lost. To reach a higher level of comfort Falco, Switzerland, introduced 2009 a lower lid prop with a thin inferior edge (Figure 3)



**Figure 3: Problem Solving 3 - lower lid prop**

The idea behind the design is to create a comfortable and stable fitting situation. The lower lid now gets physically unburdened due to the bigger contact surface. Bigger overall diameter are enabled too, even mini - sclerals as in Figure 3, which is providing additionally a higher comfort level as well.

## **Discussion**

Translating GP designs are somehow “old school”, but still offers a variety of advantages. Especially visual outcome without any ghosting is a big issue for a certain number of patients. Even when the mean idea behind a solution is not new, important improvements in details, like in our article the enhanced shelf design, can lead into a much better acceptance and furthermore enables a whole new perspective in using the GP design with the biggest benefits for your patient.