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## February 2013

# Translating bifocal (R)GP “can’t read” troubleshooting II

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### Introduction

High-riding (R)GP contact lenses are not unusual and may not always lead to problems. But in cases with translating (R)GP designs, this type of fit will result in a poor visual outcome, especially for distance. Patients will complain of double vision while viewing distance objects. As soon as they lower their head position, vision seems to improve. On the other hand, near vision often works quite well. This article will discuss fitting options to solve a superiorly dislocated contact lens.

### Problem Solving

A key for success with translating bifocal (R)GPs is that the lens is released very quickly by the upper eyelid. This will allow the lens to translate between the distance and reading portions. Reasons for a high-riding contact lens are as follows: small lid aperture with tight upper eyelid influence, peripheral corneal toricity and high minus power.

Simply positioning the segment lower will not lead to success because the lens itself has no opportunity to translate and so will create problems for distance vision. In addition, corneal warpage may be induced.

Possible strategies include 3 different modifications.

The first step is to optimize the peripheral fitting of the (R)GP lens, as even moderate levels of toricity can dramatically reduce the ability of a spherical lens to translate. In our first example, instead of a rotationally symmetrical aspheric lens design, a peripheral toric lens design was used (Figure 1), which immediately solved the problem of the high-riding bifocal lens.

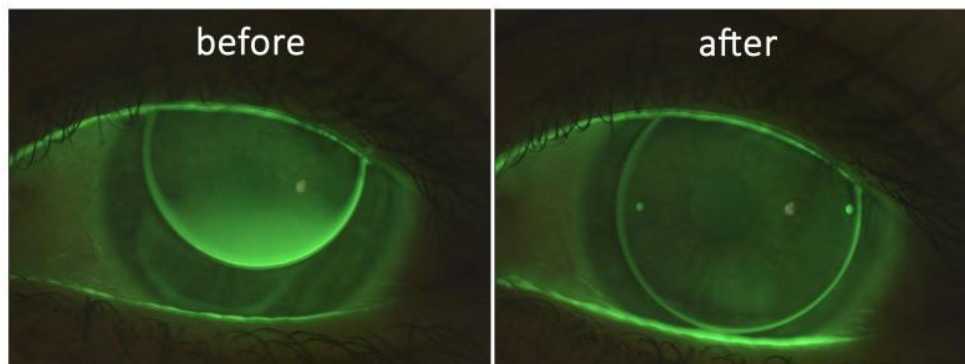


Figure 1: Problem Solving - peripheral toric design

Making the lens heavier by increasing the prism ballast is the second option available. Reduced comfort and 3- and 9- o'clock staining issues due to the

thicker edge of the contact lens are the main reasons why we try to avoid this solution whenever possible.

A third option may be as easy as it is effective: simply decrease the vertical diameter of the lens (truncation). This can be done with the existing contact lens just by making it oval in the superior part of the lens. Taking away 2/10 to 4/10 of a millimeter can have a huge impact on how quickly and easily the lens will be released from the upper eye lid (Figure 2). Additionally, the thinner superior edge will enhance the comfort of the existing contact lens.

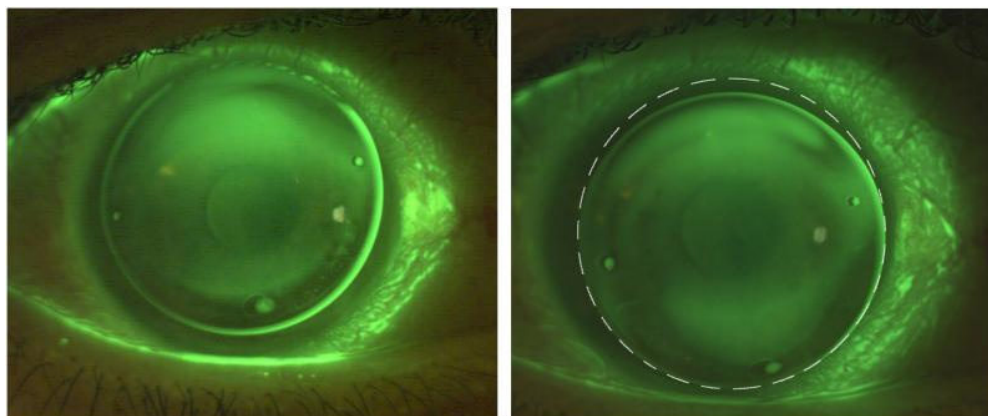


Figure 2: Problem Solving - 3/10 mm truncation of the superior portion of the contact lens

## Discussion

If problems with high-riding translating (R)GP designs occur, make sure that your fitting is optimized and that the reason for the problem is not a suboptimal peripheral lens fit. If everything fits well but the high-riding persists and you do not know what to change in the existing lens design, simple truncation of the superior edge can make a huge difference in your success with translating bifocal (R)GPs. Simple, efficient and comfortable!