

## Contact Lenses: Core Skills – Fitting and Aftercare

### RGP contact lens fitting tips

#### Lens Fit

The table below outlines any modifications to consider if VA or comfort is affected. Whilst many RGP lenses are stock lenses with limited parameters many manufacturers will tailor-make lenses if required.

Lens Position	Possible causes	Action
Low riding, dropping rapidly after blink	<ul style="list-style-type: none"> <li>• Lens too small</li> <li>• High power positive lens</li> <li>• Lens too thick</li> </ul>	<ul style="list-style-type: none"> <li>• Increase diameter</li> <li>• Use peripheral negative carrier</li> <li>• Reduce centre thickness</li> </ul>
Riding high, not dropping after blink	<ul style="list-style-type: none"> <li>• Flat peripheral zone</li> <li>• Lens too large</li> <li>• Peripheral zone too wide</li> <li>• Thick edges/lens</li> <li>• High power negative lens</li> <li>• With-the-rule astigmatism</li> </ul>	<ul style="list-style-type: none"> <li>• Steepen BOZR or peripheral curve</li> <li>• Decrease diameter</li> <li>• Narrow peripheral curve</li> <li>• Reduce edge/lens thickness</li> <li>• Lenticulate edge</li> <li>• Toric periphery</li> </ul>
Lens rides to side	<ul style="list-style-type: none"> <li>• Small lens</li> <li>• Flat lens</li> <li>• Against-the-rule astigmatism</li> <li>• Displaced corneal apex</li> </ul>	<ul style="list-style-type: none"> <li>• Increase diameter</li> <li>• Steepen lens (reduce BZOR/increase TD)</li> <li>• Use toric design (periphery/back surface)</li> <li>• Increase diameter</li> <li>• Consider soft lens</li> </ul>
No/limited movement	<ul style="list-style-type: none"> <li>• Lens too steep</li> <li>• Lens too large</li> </ul>	<ul style="list-style-type: none"> <li>• Flatten lens (increase BOZR/reduce TD)</li> <li>• Reduce diameter</li> </ul>
Excessive movement and beyond limbus	<ul style="list-style-type: none"> <li>• Lens too flat</li> <li>• Spherical lens on toric cornea</li> </ul>	<ul style="list-style-type: none"> <li>• Steepen lens (reduce BOZR/increase TD)</li> <li>• Use toric design (periphery/back surface)</li> </ul>
Lens falls out	<ul style="list-style-type: none"> <li>• Lens too small</li> <li>• Lens too flat</li> <li>• Excess edge clearance</li> </ul>	<ul style="list-style-type: none"> <li>• Increase diameter</li> <li>• Steepen lens (reduce BZOR/increase TD)</li> <li>• Reduce edge clearance</li> </ul>

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#### Patient symptoms

Issue	Possible causes	Action
Poor comfort	<ul style="list-style-type: none"> <li>Excess movement</li> <li>Excess edge clearance</li> <li>Edge too thick</li> <li>Damaged lens</li> <li>Sensitive patient</li> <li>Toric cornea</li> <li>Foreign body</li> <li>Poor wetting/deposition</li> </ul>	<ul style="list-style-type: none"> <li>Tighten fit (reduce BZOR/increase TD)</li> <li>Reduce edge clearance</li> <li>Reduce edge thickness</li> <li>Replace lens</li> <li>Thinner/different lens design</li> <li>Increase diameter</li> <li>Soft lens</li> <li>Toric design</li> <li>Aspheric lens</li> <li>Remove and replace lens</li> <li>Clean lens</li> <li>Change material</li> <li>Improve cleaning regime</li> <li>Increase replacement frequency</li> </ul>
Poor vision	<ul style="list-style-type: none"> <li>Prescription change</li> <li>Residual astigmatism</li> <li>Change of corneal shape</li> <li>Scratched lens</li> <li>Poorly wetting/deposited lens</li> <li>Warped lens</li> <li>Switched lenses (wrong eyes)</li> </ul>	<ul style="list-style-type: none"> <li>Over-refraction &amp; alter power</li> <li>Over-refraction &amp; toric lens</li> <li>Review and modify fit</li> <li>Replace lens</li> <li>Change cleaning regime</li> <li>Change material</li> <li>Check/change lens</li> <li>Swap lenses</li> </ul>
Flare/haloes at night	<ul style="list-style-type: none"> <li>Lens too small with increased pupil size</li> <li>Lens dropping low</li> </ul>	<ul style="list-style-type: none"> <li>Increase lens total diameter (flatten BOZR to compensate) Increase BOZD</li> <li>Change to aspheric design Refit in larger diameter or different design</li> </ul>
3 & 9 o'clock staining	<ul style="list-style-type: none"> <li>Edge profile and lens fit</li> <li>Dry eye</li> <li>VDU use</li> </ul>	<ul style="list-style-type: none"> <li>Increase or decrease edge clearance</li> <li>Increase or decrease diameter</li> <li>Lubricants &amp; lid management</li> <li>Blinking &amp; breaks</li> </ul>