

## **ASSIGNMENT 19**

**Material Covered:**  
***Unit 8.9 of Module 8, and Units 9.1, 9.2 and 9.3 of Module 9  
of the IACLE Contact Lens Course***

## ASSIGNMENT 19

Read the questions carefully and record your answers on the answer sheet provided.

1. **What is the optimum humidity range for comfortable contact lens wear?**
  - a. 15 to 25%
  - b. 25 to 40%
  - c. 40 to 60%
  - d. 60 to 85%
  
2. **All of the following are desirable factors in the fitting pattern of an orthokeratology lens, EXCEPT:**
  - a. Deep and wide tear reservoir around the central zone
  - b. At least 1 mm of edge clearance
  - c. Small amount of movement upon blinking
  - d. 3 to 4.5 mm of central bearing
  
3. **Which one of the following should a practitioner do when fitting contact lenses to a professional swimmer?**
  - a. Avoid soft hydrogel lenses
  - b. Consider using smaller diameter lenses
  - c. Fit rigid gas permeable lenses
  - d. Avoid ultra-thin lenses
  
4. **What is the normal thickness of the corneal epithelium?**
  - a. 5 – 10  $\mu\text{m}$
  - b. 10 – 40  $\mu\text{m}$
  - c. 50 – 60  $\mu\text{m}$
  - d. 70 – 100  $\mu\text{m}$
  
5. **All of the following visual skills are enhanced by contact lens wear, EXCEPT:**
  - a. Interpretation of blurred images
  - b. Depth perception
  - c. Peripheral awareness
  - d. Dynamic visual acuity
  
6. **The limit of an orthokeratology procedure is reached when:**
  - a. The cornea is changed to a hyperbolic shape
  - b. The cornea is changed to a prolate shape
  - c. The cornea is changed to an oblate shape
  - d. The cornea is changed to a spherical shape

7. **Which one of the following contact lens types would be MOST suitable for a pole vaulting athlete?**
  - a. Large diameter RGP lens
  - b. Large diameter soft lens
  - c. Small diameter RGP lens
  - d. Small diameter soft lens
  
8. **According to Mountford (1997), what is the minimum corneal eccentricity (e value) required to achieve a change of  $-2.00$  D through orthokeratology?**
  - a. 0.12
  - b. 0.22
  - c. 0.42
  - d. 0.62
  
9. **What should the practitioner do if dimple veiling is seen in an orthokeratology patient within an hour of awakening?**
  - a. Ignore it
  - b. Refit with a lens of the same parameters but in a more gas permeable material
  - c. Promptly remove the lens and cease overnight lens wear
  - d. Refit with a flatter lens to decrease post-lens tear film depth
  
10. **All of the following are considered ideal end point criteria for orthokeratology, EXCEPT:**
  - a. Bulls-eye topography pattern
  - b. Final Rx of  $+0.75$  D Sph
  - c. Uncorrected VA of  $6/6^{-1}$
  - d. Regression of  $0.12$  D Sph over a 10-hour, no-lens wear period
  
11. **If a subtractive corneal topography plot shows a 'smiley face' pattern, what can be deduced about the contact lens used for orthokeratology?**
  - a. The BOZR is too steep
  - b. The total diameter (TD) is too large
  - c. The BOZR is too flat
  - d. The lens fit is ideal
  
12. **Which one of the following instruments is ESSENTIAL in the initial examination and ongoing management of orthokeratology patients?**
  - a. Autorefractor
  - b. Videokeratoscope
  - c. Autokeratometer
  - d. Confocal microscope

13. **When fitting RGP lenses for sports, all of the following are suitable, EXCEPT:**
- Fit slightly flat
  - Use larger diameter lenses
  - Avoid excessive edge lift
  - Use large optic zones to reduce flare
14. **If coloured fringes are seen with a Tearscope™ or similar device, what is the estimated thickness of the tear film lipid layer?**
- 10 – 15 nm
  - 15 – 30 nm
  - 30 – 80 nm
  - 80 – 370 nm
15. **Exposure to significant levels of visible light while wearing contact lenses can have which one of the following effects?**
- A reduction in the volume of tears on the anterior eye
  - An increase in the amount of with-the-rule corneal astigmatism from squinting
  - Glare and photophobia due to lenticular fluorescence
  - A reduced blink rate
16. **Which statement regarding the Cochet-Bonnet aesthesiometer is INCORRECT?**
- Can be used safely 2 hours after LASIK surgery
  - Relative humidity can affect the measurements
  - Affordable and reasonably reliable
  - The filament becomes more rigid over time
17. **What is the MOST useful predictor of success in orthokeratology, according to Carkeet et al. (1995)?**
- Corneal rigidity
  - Epithelial thickness
  - Corneal diameter
  - Initial refractive error
18. **All of the following have been postulated as mechanisms for explaining, at least partially, the effects of modern orthokeratology, EXCEPT:**
- Corneal bending
  - Negative pressure
  - Epithelial thinning or thickening
  - Corneal tissue redistribution
19. **Which one of the following eye characteristics is NOT desirable in a prospective orthokeratology patient?**
- Rx: –0.50 to –4.00 D Sph
  - <1.50 D of corneal astigmatism
  - Central flattest K steeper than 41.87 D
  - A cornea that steepens in the periphery



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- 20. If there is a risk of exposure to LASER radiation while wearing contact lenses, the wearer should be advised to:**
- a. Wear special contact lenses that absorb radiation of 350 nm wavelength or shorter
  - b. Wear goggles selected for the LASER in use
  - c. Wear special contact lenses that absorb radiation of 800 nm wavelength or longer
  - d. Wear goggles that absorb all non-ionizing radiation