

Unlocking the mystery of Myopia Management 7 Keys to success

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With myopia coming back into the light of our practice, it seems fitting that we unlock the mystery of its management. Too many of us have looked at this nasty condition as a refractive error while ignoring the disease and the advanced conditions that it contributes to. This course highlights the reasons that we should see Myopia as a disease and looks at how we can treat it through various management strategies.

Objectives:

Following this course attendees will have a

1. Better understanding of what effects myopia has on the eye
2. Better understanding on the risk factors associated with myopia
3. Better understanding of What treatments are available to slow the progression of myopia
4. Better understanding of how to implement treatments into their practice

Outline:

Proactively Managing Myopia

1. Stats: 5 min
 - a. Myopia is projected to increase from approximately two billion people worldwide in 2010 to almost five billion people in 2050
 - b. Family history
 - i. Is it genetics?
 - ii. Is it function of what happens in families?
2. When to worry 5 min
 - a. Emmetropia at 8 years old is the norm (if earlier, consider freaking out, just consider it)
 - b. Myopia prior to 8 years old is not the norm, and they are more likely to progress and progress fast
 - c. Most consider -0.50 increase in Rx to be myopia progression
 - i. Is this where we should start
 - ii. Should we consider starting treatment when someone is hyperopic or even emmetropic
 - d. Axial Length is the Gold Standard?
 - i. Should we all have axial length measurements
 1. Really it is not the myopia
 - a. It's the eye ball elongation that increases disease risk factors for our patients
 - ii. Can we use refraction to monitor and how?
 1. Refraction
 2. Cyclo
 3. Autorefraction
3. Is there a SAFE level of Myopia? 5 min
 - a. Stats on what happens at various levels of myopia
4. Increased risk 5 min
 - a. The younger the diagnosis the higher your risks
5. Types of Myopia 5 min
 - a. Accommodative
 - i. During Accommodation
 1. Lens changes to focus on near target
 2. Myopic Defocus if accommodation persists in the distance
 - b. Axial elongation
 - i. With peripheral defocus the eyeball grows longer
6. Myopia Management 10 min
(reduction in axial elongation)
 - a. Atropine 30-77%
 - b. Normal RGP's and SCL's have no effect 0-5%
 - c. Spectacles: PALs, bifocal and novel lenses have small effects except for specific BV / genetic risk populations 12-55%
 - d. SCL's: Bifocal and Multifocal 29-70%

- e. OrthoK 32-100%
 - i. REIM Study (2003): 60% reduction vs SV glasses
 - ii. LORIC Study (2005): 47% reduction vs SV glasses
 - iii. CRAYON Study (2007): 57% reduction vs SV soft CL vs SV GP CL
 - iv. CRIMPS Study (2010): 64% reduction vs SV glasses
 - f. SMART Study On Ortho-K
 - i. SMART: study in children and teenagers, large study 300 subjects
 - ii. 3-year results:
 - 1. SCL group was $\sim -1.03D$ vs. ortho-K group $\sim -0.13D$
7. 7 Quick Tips to Unlock Success 10
minute
- a. Understand that Myopia is a Disease
 - b. Know your Number 1 goal
 - c. Find Success Early
 - d. Get More Plus
 - i. Look at topo and see about treatment zone to increase plus in the periphery
 - e. Full Correction is not needed for #1
 - i. Study in patients with $>5.00D$ of myopia
 - ii. Axial elongation was 63% slower in Partial Reduction ortho-k-treated children compared to single vision spectacles
 - f. Combination Treatment is A-Ok
 - i. Review study showing good treatment with combination of myopia treatment using atropine and ortho-k
 - g. Ya gotta start somewhere, how about HERE
 - i. Suggestions on how to get started doing myopia treatment.
 - 1. Good candidates
 - 2. Treatment options to consider
8. Conclusions: 5 minutes
- a. Myopia is a DISEASE!
 - i. We can not ignore this anymore
 - b. Myopia is on the rise!
 - i. The literature supports this
 - ii. The COVID effect
 - c. What If you could be 80-95% successful with your initial lenses?
 - d. Don't give up on the KIDDOS!
9. Q&A