Bringing Myopia Control to Private Practice

More and more optometric conferences are offering courses on <u>myopia</u> <u>management</u>. Research is providing us with more information supporting the fact that myopia management works. Furthermore, we are starting to see more optometrists bring myopia control to their practice, adding it to their treatment regimens.

To the general public, myopia is known as nearsightedness. Most children who are myopic are prescribed eyeglasses or contact lenses, which enables sharper distance vision. However, myopia is much more than a vision problem. It is a potential health risk. I recently read a statistic put out by the Brien Holden Institute that almost 50% of the world's population will be myopic by the year 2050. This is undoubtedly a public health risk as myopia is considered a disease.

Myopia is an independent risk factor for myopic macular degeneration, glaucoma, cataracts, and retinal detachment. The higher the myopia, the higher the risk. One researcher gave the analogy of smoking and high blood pressure in relation to heart disease. Smoking three packs a day or having very high blood pressure is worse than smoking one cigarette a week or having borderline high blood pressure. As for myopia, even at low levels, there is a risk of disease from potential eye-related influences.

Risk factors for myopia

Also, keep in mind that risks for myopia depend on family history and environmental circumstances. Are one or both parents myopic? Is the child of Asian descent? Do they read constantly or use electronic devices like phones and tablets for a large part of their day? The time spent reading, using computers, smartphones, and tablets plays a huge role in myopia

development, especially if there is a strong genetic factor. One thing eyecare specialists know is that the closer your work is to your eyes, the harder your eye muscles must labor to focus. And the harder your eyes labor to focus, the more likely you are to become myopic. For some, it becomes pseudo-myopia, but for others, true myopia develops. From a physical standpoint, an increase in true myopia is almost always caused by the elongation of the eye from front to back.

These factors alone should be a wake-up-call for optometrists to consider speaking with patients and/or their parents, not only about correcting vision with eyeglasses or contact lenses but about myopia management services to reduce the risk of myopia related eye sequelae. In our practice, we are doing just that. Our doctors decided about six years ago to be proactive, incorporating various modalities of myopia control into our practice. And it's working. Myopia in our young patients is progressing more slowly or not at all. Of course, the results are variable and are highly dependent on the individual patient.

How did we do this? Believe it or not, it started with a new graduate optometrist who, as an undergrad, had worked for a well-known, internationally servicing, contact lens specialty optometric office. We hired this newly minted doctor and she immediately asked to make some changes. We gave her carte blanche to implement whatever she wanted to add to our services, as we saw this as a good opportunity to better help our patients. Among other things, she added scleral lenses, ortho-K, and other advanced multifocal contact lenses. She also stimulated our seasoned doctors, including me, to learn something new and to act on what we learned.

How we implemented changes in our practice Doctor education

Each of our doctors took some classes and started to fit "easy" patients with a lens modality that we might not have chosen prior. We shared the many journal articles that are available and attended courses given at the optometric conferences. Contact lens representatives were also a wealth of knowledge. We then shared the results of our treatment plans with each other as an additional learning experience.

Staff education

Educating our staff was the single most important thing we could have done. Our team is the first touchpoint to our practice for patients. Providing our team with basic knowledge and the ability to speak intelligently about myopia management helped to build patient confidence in our practice. From the receptionist to the techs, our staff are the ones who will field the questions before the patient sees the doctor.

Educating patients

Now that the doctors and staff were knowledgeable about myopia control, we started to speak to our patients about treatment alternatives to standard eyeglasses and conventional contact lenses. Every patient gets at least a 30-second intro to myopia control. We discuss this in greater detail with the more at-risk patients.



Treatment options for myopia

Conventional wisdom has always been to correct developing myopia in children with eyeglasses or contact lenses. We might under-correct or fit a bifocal lens or prescribe a separate pair of reading glasses. Our thinking was that if we reduce the accommodative stress, then we will reduce myopic progression. Studies pointed to the fact that this may have worked at first but after time, myopia progressed at the same rate as if the patient was not treated at all.

I would say that over 98% of optometrists and ophthalmologists have historically subscribed to this wisdom. But that thinking is starting to change big time in the past five to ten years. In 2015, about 25% of optometrists practiced some sort of myopia control. In 2016, that percentage was about 33%. Today, that number is 70% or more.

Without getting too technical here, new treatments have been developed to slow down myopia progression by attempting to address the reasons for the eye's elongation.

There are basically three methods that optometrists have of controlling myopia:

Orthokeratology

Uses a specific design of gas-permeable contact lenses to change the shape of the cornea, thereby changing where the light focuses on the retina.

Atropine

An <u>eye drop</u> that dilates the pupil, again changing the focusing ability of the eye. Doctors are still debating the minimal dosage that works.

Soft multifocal contact lenses

<u>Specially designed lenses</u> to create multiple focal points on the retina. Specifically, the theory is that if the mid-peripheral and peripheral retina received a more hyperopic correction than the central retina, the resulting stimulus would reduce eye growth. One such lens is the center-distance extended depth of focus design of the VTI NaturalVue Multifocal.

Do you see a pattern emerging here? Every management or treatment protocol involves changing where the light focuses.

Parents need to understand that children do not have to become highly myopic, increasing their risks for other eye diseases over time. We no longer have to wait and see what happens. We can intervene to attempt to change what was once considered destiny. Parents also need to understand that there are no guarantees and that doctors are using data from the most

current scientific research to prescribe treatment. Ongoing investment in myopia control management is akin to investing in speech therapy. Teach a child how to speak properly now and they will be impacted for life. Prevent or reduce myopia progression and a child will be impacted for life too.

Myopia control is in the hands of optometrists. Together, let's keep the world in focus.