

Ask The Experts

Lower readings of myopia due to more rest or eye exercises?

Q I am a 20-year-old man. A few months ago, I started doing eye exercises after I read books on natural ways to improve one's vision.

Last week, I went to the optician to get my eyes checked. From -3.50 dioptres in my right eye and -5.00 dioptres in my left eye, my eyesight improved to -3.00 dioptres and -4.25 dioptres.

I told my optician about the eye exercises I was doing. Her reply was that the difference in my eyesight was simply that I had slept early the night before and had a relaxed day.

She added that the last time I had my eyes checked, I was probably going through a stressful period, studying very hard for my examinations and sleeping late.

But the size of the refractive error in my left eye fell by -0.75 dioptres. Can my vision deviate so much just because I slept early and was relaxed before the eye test?

A The eye can accommodate, or adjust, itself to focus at various distances.

I am assuming that you are myopic (short-sighted). If a myopic eye is not fully relaxed, this would affect its accommodation.

The resulting refractive error may then end up higher than the true myopic error of the eye.

Hence, it is possible that if you were tired, the

eye's ability to adjust itself would be worse, and if you were more relaxed, it would be better.

It is unlikely that the refractive errors in your eyes decreased in size.

It is more likely that in the initial examination, your eyes were not fully relaxed, while during the later check, your eyes were more relaxed.

It is certainly possible that the sizes of the refractive error measured can vary as much as -0.75 dioptres (or 75 degrees as is commonly termed) at different visits.

The degree of accommodation in a young person is wide. It is 10 dioptres on average in a 20-year-old and decreases to 4 dioptres in a 40-year-old.

If the refractive error readings fluctuate widely in different settings, a complete eye examination, possibly with the use of a fogging method of refraction or cycloplegic eyedrops – both of which relax the eyes for better accommodation – may be more reflective of the true myopic error of the eye.



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