

Myopia

Symptoms

People who have myopia (short-sighted) have difficulty seeing distant objects, but can see near objects clearly. For example, a person who is short-sighted may not be able to see highway signs until they are just a few feet away.

Formation

With myopia, the light rays from the distant object entering the eye are focused in front of the retina instead of on it, resulting in blurred images. This is usually because the eyeball is too long or sometimes the cornea and the lens do not bend the light rays properly.

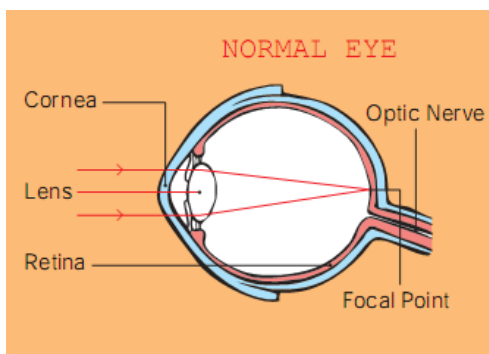


Image of distant object focused on retina.
(clear image)

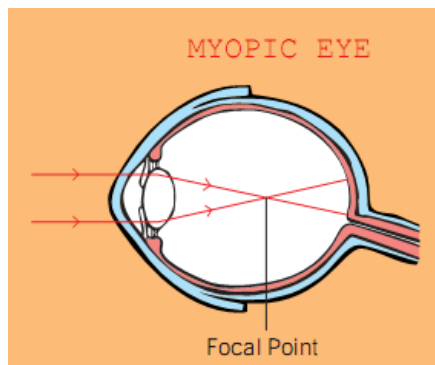


Image of distant object focused in front
of retina.
(blurred image)

Cause

Myopia is partly inherited and partly due to environmental factors. Although how myopia develops is not clearly known yet, studies have shown that near work, such as reading and writing, is a very important environmental factor.

Incidence

Myopia is a common eye problem in Hong Kong. About 17% of P.1 students are short-sighted and but the percentage increases to about 53% in P.6 students. Besides, the degree of myopia increases with age and it will stabilize about 20 years old.

Preventive Measures

Although myopia is partly inherited, eye care can help to keep good vision.

1. Proper habit
 - Keep a distance of at least 30cm between the eyes and the books.
 - Do not read lying in bed as you may move the book closer and closer to the eyes without noticing it.
 - Do not read without adequate ambient lighting.
 - Rest for 20-30 seconds after every 20-30minutes of screen use
 - Change position, blink eyes, do muscle relaxation exercise
 - 6-12 years old: Limit recreational screen time to no more than two hours a day.
 - 12-18 years old: Avoid prolonged screen time.
2. Optimal lighting
 - Use ceiling lights when reading. Lighting should be even and bright without excessive glare.
 - For right-handed children, light from a desk lamp should be shone from the left upper corner when they are writing, and from the right upper corner for left-handers. Do not shine light directly into the eyes.
 - Watch television with room light on.
3. Choose suitable printed material
 - Poor quality printed materials will cause eye strain. Words should be clearly printed: both the font size and the spacing should be appropriate.
 - Glossy paper will produce glare and cause eye strain after prolonged reading.
 - Dark-colored paper reduces clarity and makes reading difficult.
4. Keep your eyes and body healthy
 - Have a balanced diet: eat more cereal, grains, vegetables and fruits as well as a moderate amount of meat, but eat less fat.
 - Eat food rich in vitamin A (e.g. tomatoes and carrots) since it is good for your eyesight.
 - Outdoor activities can relieve eye strain.
 - Have adequate sleep to rest your eyes.
5. Have regular eye check-up and wear glasses when necessary
 - Have vision test once a year. Wear glasses if myopia affect your academic performance or daily activities.
 - Wearing glasses make your vision clearer but it cannot help to cure or prevent myopia from worsening. On the contrary, not wearing properly prescribed spectacles will further affect your ability to see and your academic performance will suffer.