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TWO EYE DEFECTS:

(1.) Myopia: (nearsightedness) This is a defect of vision in which far objects appear blurred but near objects are seen clearly. The image is focused in front of the retina rather than on it usually because the eyeball is too long or the refractive power of the eye's lens too strong. Myopia can be corrected by wearing glasses/contacts with concave lenses these help to focus the image on the retina.

Symptoms

Nearsightedness symptoms may include:

- Blurry vision when looking at distant objects
- The need to squint or partially close the eyelids to see clearly
- Headaches caused by eyestrain
- Difficulty seeing while driving a vehicle, especially at night (night myopia)

Nearsightedness is often first detected during childhood and is commonly diagnosed between the early school years through the teens. A child with nearsightedness may:

- Persistently squint
- Need to sit closer to the television, movie screen or the front of the classroom
- Seem to be unaware of distant objects
- Blink excessively
- Rub his or her eyes frequently

When to see a doctor

If your difficulty clearly seeing things that are far away (distance blur) is pronounced enough that you can't perform a task as well as you wish, or if the quality of your vision detracts from your enjoyment of activities, see an eye doctor. He or she can determine the degree of your nearsightedness and advise you of your options to correct your vision.

Seek emergency medical care if you experience:

- The sudden appearance of many floaters — tiny specks that seem to drift through your field of vision
- Flashes of light in one or both eyes
- A curtain-like shadow over your visual field

These are warning signs of retinal detachment, which is a rare complication of myopia. Retinal detachment is a medical emergency, and time is critical.

Regular eye exams

Since it may not always be readily apparent that you're having trouble with your vision, the American Academy of Ophthalmology recommends the following intervals for regular eye exams:

Adults

If you're at high risk of certain eye diseases, such as glaucoma, get a dilated eye exam every one to two years, starting at age 40.

If you don't wear glasses or contacts, have no symptoms of eye trouble, and are at a low risk of developing eye diseases, such as glaucoma, get an eye exam at the following intervals:

- Every five to 10 years in your 20s and 30s
- Every two to four years from 40 to 54
- Every one to three years from 55 to 64
- Every one to two years after age 65

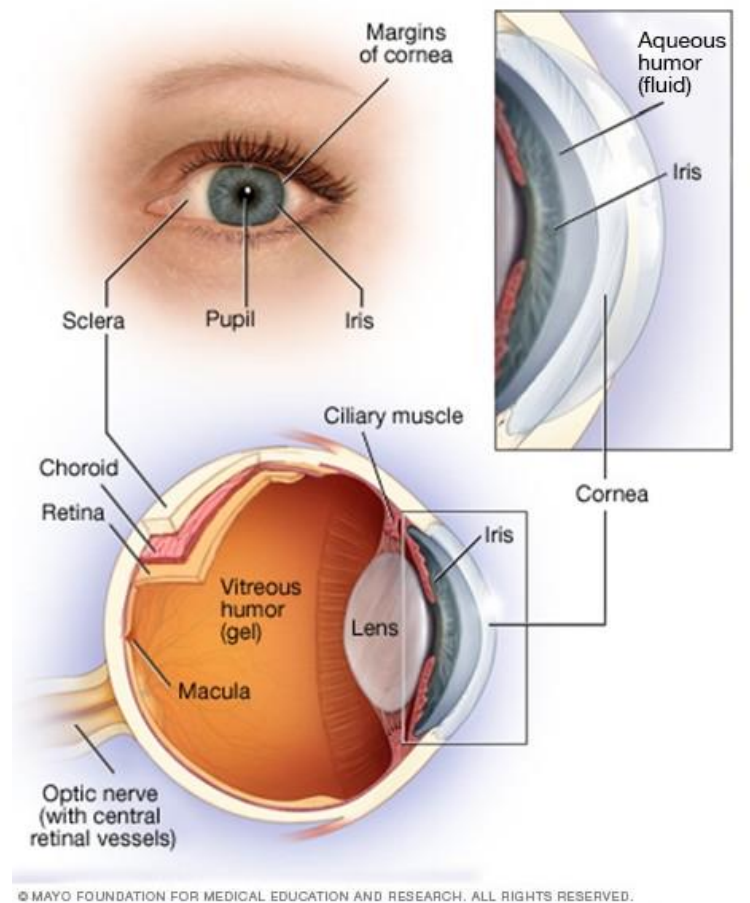
If you wear glasses or contacts or you have a health condition that affects your eyes, such as diabetes, you'll likely need to have your eyes checked regularly. Ask your eye doctor how frequently you need to schedule your appointments. But, if you notice any problems with your vision, schedule an appointment with your eye doctor as soon as possible, even if you've recently had an eye exam. Blurred vision, for example, may suggest you need a prescription change, or it could be a sign of another problem.

Children and adolescents

Children need to be screened for eye disease and have their vision tested by a pediatrician, an ophthalmologist, an optometrist or another trained screener at the following ages and intervals.

- Age 6 months
- Age 3 years
- Before first grade and every two years during school years, at well-child visits, or through school or public screenings

Causes



Anatomy of the eye Open pop-up dialog box

Your eye has two parts that focus images:

- **The cornea** is the clear, dome-shaped front surface of your eye.

- **The lens** is a clear structure about the size and shape of an M&M's candy.

In a normally shaped eye, each of these focusing elements has a perfectly smooth curvature, like the surface of a marble. A cornea and lens with such curvature bend (refract) all incoming light to make a sharply focused image directly on the retina, at the back of your eye.

A refractive error

If your cornea or lens isn't evenly and smoothly curved, light rays aren't refracted properly, and you have a refractive error.

Nearsightedness usually occurs when your eyeball is longer than normal or your cornea is curved too steeply. Instead of being focused precisely on your retina, light is focused in front of your retina, resulting in a blurry appearance for distant objects.

Other refractive errors

In addition to nearsightedness, other refractive errors include:

- **Farsightedness (hyperopia).** This occurs when your eyeball is shorter than normal or your cornea is curved too little. The effect is the opposite of nearsightedness. In adults, both near and distant objects are blurred.
- **Astigmatism.** This occurs when your cornea or lens is curved more steeply in one direction than in another. Uncorrected astigmatism blurs your vision.

Risk factors

Certain risk factors may increase the likelihood of developing nearsightedness, such as:

- **Genetics.** Nearsightedness tends to run in families. If one of your parents is nearsighted, your risk of developing the condition is increased. The risk is even higher if both parents are nearsighted.
- **Environmental conditions.** Some studies support the idea that a lack of time spent outdoors may increase the chances of developing myopia.

Complications

Nearsightedness is associated with a variety of complications from mild to severe, such as:

- **Reduced quality of life.** Uncorrected nearsightedness can affect your quality of life. You might not be able to perform a task as well as you wish. And your limited vision may detract from your enjoyment of day-to-day activities.
- **Eyestrain.** Uncorrected nearsightedness may cause you to squint or strain your eyes to maintain focus. This can lead to eyestrain and headaches.
- **Impaired safety.** Your own safety and that of others may be jeopardized if you have an uncorrected vision problem. This could be especially serious if you are driving a car or operating heavy equipment.
- **Financial burden.** The cost of corrective lenses, eye exams and medical treatments can add up, especially with a chronic condition such as nearsightedness. Vision reduction and vision loss also can affect income potential in some cases.
- **Other eye problems.** Severe nearsightedness puts you at an increased risk of retinal detachment, glaucoma, cataracts and myopic maculopathy — damage in the central retinal area. The tissues in long eyeballs are stretched and thinned, causing tears, inflammation, new blood vessels that are weak and bleed easily, and scarring.

(2) Hyperopia: (farsightedness) This is a defect of vision in which there is difficulty with near vision but far objects can be seen easily. The image is focused behind the retina rather than upon it. This occurs when the eyeball is too short or the refractive power of the lens is too weak. Hyperopia can be corrected by wearing glasses/contacts that contain convex lenses.

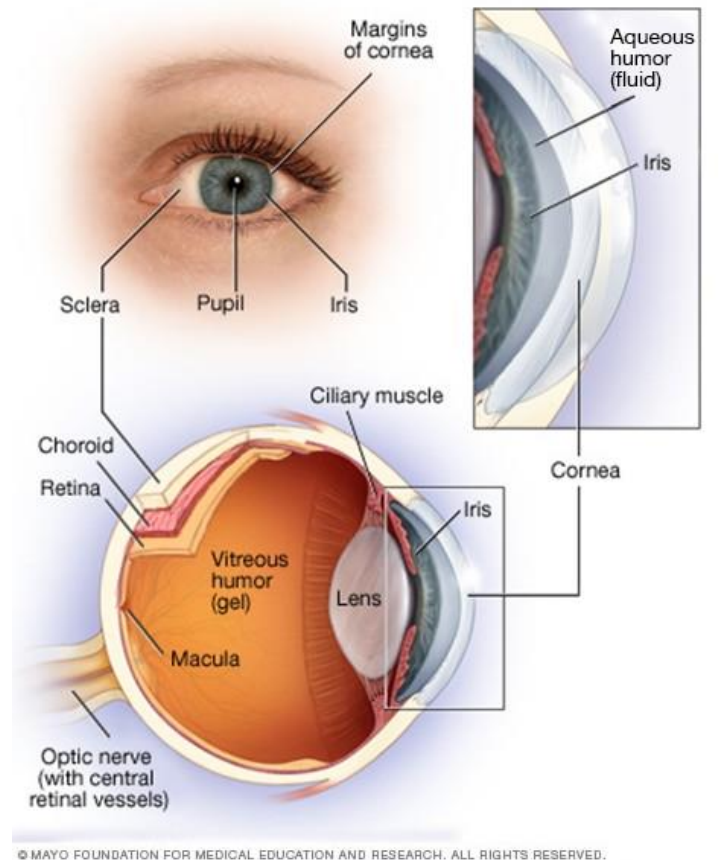
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