Eye & Vision REPORTS

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HYPEROPIA

What is Hyperopia ?

Hyperopia is another term for far-sighted. However, the term far-sighted is misleading for this condition. It implies that you can see distant objects clearly, but not objects that are close to you. Yet, some far-sighted patients can see clearly without symptoms, while other hyperopic patients can see neither distant or near objects.

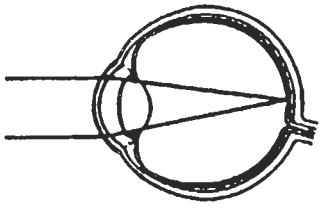
To understand how hyperopia affects vision, and why some hyperopic patients can have clear vision, it is best to first understand how a normal eye sees clearly.

How does a normal eye see clearly ?

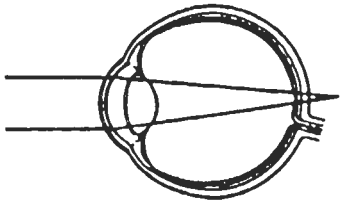
For a normal eye to see a distant object, light must be focused directly on the retina, which is located in the back of the eye. This will happen when the parallel light rays from the object are "bent" by the cornea, and the lens of the eye, and are brought into a sharp, focus point directly on the retina.

To look at close objects, the normal eye must undergo a process called accommodation. To accommodate, the muscles of the ciliary body change the shape of the lens. This increases the focusing power of the lens and enables the lens to "bend" light rays even more. If the eye does not accommodate, light rays from close objects are not brought to a focus on the retina. Instead the point where close objects are in focus, in the un-accommodating eye, lies behind the retina.

By accommodating, the point of focus for close objects can be moved forward, closer to the retina. With the proper amount of accommodation, a clear image can be obtained because the focus point will be directly on the retina.



The light rays from distant objects are focused to a point on the retina of a normal eye.



In the hyperopic eye, the light rays would come to a focus behind the retina.

What causes Hyperopia?

Hyperopia occurs because the overall length of the eye is too short, or because the cornea is too flat. As a result, light rays are not "bent enought" to be brought into focus on the retina. Instead, the point where the light rays focus lies behind the retina.

How does a Hyperopic patient see clearly ?

As already discussed, the eye can accommodate to bring focus points closer to the retina. Therefore, if the hyperopic patient accommodates the proper amount, the focus point of any object can be brought directly onto the retina, and the hyperopic patient will see clearly.

What are the symptoms of Hyperopia ?

The symptoms of hyperopia are due to constantly accommodating to see clearly. The symptoms include: headaches, eyestrain, blurred vision of close objects, difficulty with reading, avoidance of reading, and even irritability and stress.

Not every hyperopic patient experiences these symptoms. These symptoms vary, depending upon the amount of hyperopia, the amount of reading that is performed and the age of the patient.

Why do the symptoms vary among patients ?

The ability to accommodate is greatest when we are young, and will decrease as we age. Therefore, a young hyperopic person may have little noticeable symptoms because that person can accommodate without much effert. As we age, it becomes more difficult to provide the proper amount of focusing power to see clearly, and symptoms begin to occur.

For the highly hyperopic patient, the amount of accommodation necessary to see may be too great Near objects, and possibly even distant objects, will not come into clear view in the highly hyperopic patient.

Of course, if a hyperopic patient doesn't read often, the patient won't notice any difficulty with reading, or other related symptoms.

What is the treatment for Hyperopia ?

Treatment for hyperopia is accomplished with prescription glasses and/or contact lenses. The prescription will reduce the amount of accommodation that is necessary for you to see clearly.

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