

Wasatch View Eye Care <u>www.wasatchview.com</u>

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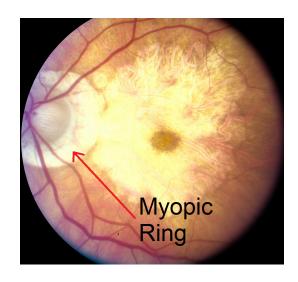
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Pathological Myopia

Overview

Pathological myopia or degenerative myopia is a state where there is a very large amount of myopia (greater than 6.0 diopters) in an eyeglass prescription. It is a result of elongation or enlargement of the eye. This deformation of the eye causes stress to the retina and its associated structures. The retina is pulled away from the optic nerve head and may form a myopic ring. Lattice degeneration and its associated risk of a detached retina are significantly more common in pathological myopia. Posterior staphylomas can develop and thinning of retinal support cells also occurs. These changes lead to highly myopic eyeglass prescriptions, decreases in best corrected vision and increased risks of retinal problems. An eye doctor will need to do a dilated fundus exam or wide-field fundus photography to



evaluate an eye with pathological myopia. A direct cause of myopia has not been found. However, it has a genetic component and increases in those that spend more time indoors. Treatment of pathological myopia includes yearly dilated eye exams to watch for potential complications. Diluted atropine drops can also be used to slow the progression of myopia in children.

Signs & Symptoms

Patients with pathologic myopia have very high minus eyeglass prescriptions and may have "coke bottle" glasses. Best corrected visual acuity is commonly reduced to 20/25 to 20/40. If the macula is affected, vision can be significantly worse and distorted.

Causes

The exact cause of elongation associated with myopia is poorly understood. Studies are showing that it has a genetic component and increases the more time an individual stays



indoors. There is also evidence that it is related to near work. When myopia gets over -6.00 D it is considered pathologic because it increases the risk of retinal complications.

Evaluation

Patients with pathological myopia should have a dilated fundus examination and refraction done every year to catch potential retinal problems early. Ultrasound testing can be done to measure the length of the eyeball.

Management

Pathological myopia is managed by observing for potential retinal complications and updating eyeglass prescriptions. When retinal complications are seen they should be promptly referred to a retinal specialist. Myopia control offers the potential to slow progression of pathological myopia. Current methods include using a diluted atropine drop and specially designed contact lenses.

Websites

All About Vision:

 $\underline{https://www.allaboutvision.com/conditions/myopia/degenerative-myopia/\#:\sim:text=Pathologic\%20myopia\%20is\%20characterized\%20by, and \%20can\%20lead\%20to\%20blindness.}$

Optometrist.org:

 $\frac{https://www.optometrists.org/general-practice-optometry/guide-to-eye-conditions/guide-to-blurry-visionun-and-headaches/what-is-degenerative-myopia/#:~:text=Degenerative%20myopia%2C%20also%20known%20as,visual%20loss%20and%20poor%20eyesight.}$