

Leber Hereditary Optic Neuropathy

Leber hereditary optic neuropathy (LHON) is a mitochondrial disease that causes optic atrophy. It typically affects adolescent males, who may present with painless vision loss.



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Characteristics

Mitochondrial Disease

[Damaged Mitochondria](#)

Mitochondrial diseases occur from defects in mitochondrial DNA. LHON is one of these diseases, which leads to dysfunction in mitochondrial energy production.

Optic Atrophy

[Optics-@-Trophy](#)

LHON is characterized by optic nerve fiber atrophy. This is most pronounced in the papillomacular bundle, which can lead to central scotomas.

Adolescent Males

[Adolescent Male](#)

This disease most often occurs in male adolescents, between 12-18 years of age.

Symptoms/Findings

Painless Vision Loss

[No Pain-bolt Sign Darkened-Eye-Smiling](#)

Painless vision loss can be a feature of LHON. The vision loss starts in one eye and gradually affects the other.