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Retinal Disorders

The retina is a layer of tissue in the back of your eye that senses light and sends images to your brain. In the center of this nerve tissue is the macula. It provides the sharp, central vision needed for reading, driving and seeing fine detail.

Retinal disorders affect this vital tissue. They can affect your vision, and some can be serious enough to cause blindness [<https://medlineplus.gov/visionimpairmentandblindness.html>] . Examples are:

- Macular degeneration [<https://medlineplus.gov/maculardegeneration.html>] - a disease that destroys your sharp, central vision
- Diabetic eye disease [<https://medlineplus.gov/diabeticeyeproblems.html>]
- Retinal detachment [<https://medlineplus.gov/retinaldetachment.html>] - a medical emergency, when the retina is pulled away from the back of the eye
- Retinoblastoma [<https://medlineplus.gov/eyecancer.html>] - cancer of the retina. It is most common in young children.
- Macular pucker - scar tissue on the macula
- Macular hole - a small break in the macula that usually happens to people over 60
- Floaters - cobwebs or specks in your field of vision

NIH: National Eye Institute



Symptoms

- Eye Symptoms [<https://www.aao.org/eye-health/symptoms-list>] (American Academy of Ophthalmology)
Also in Spanish [<https://www.aao.org/salud-ocular/sintomas-lista>]


Diagnosis and Tests

- Dilating Eye Drops [<https://www.aapos.org/glossary/dilating-eye-drops>]
(American Association for Pediatric Ophthalmology and Strabismus)

Treatments and Therapies

- Injections to Treat Eye Conditions [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/diabetic-retinopathy/injections-treat-eye-conditions>]  (National Eye Institute)
- Laser Surgery and Freeze Treatment for Retinal Tears [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/retinal-detachment/laser-surgery-and-freeze-treatment-retinal-tears>]  (National Eye Institute)



Related Issues


- What Is Macular Edema? [<https://www.aao.org/eye-health/diseases/what-is-macular-edema>]
 (American Academy of Ophthalmology)
Also in Spanish [<https://www.aao.org/salud-ocular/enfermedades/edema-macular>]

Specifics

- Bardet-Biedl Syndrome [<https://www.fightingblindness.org/diseases/bardet-biedl-syndrome-bbs>] (Foundation Fighting Blindness)
- Bietti's Crystalline Dystrophy [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/biettis-crystalline-dystrophy>]  (National Eye Institute)
- Cancers Affecting the Retina [<https://www.merckmanuals.com/home/eye-disorders/retinal-disorders/cancers-affecting-the-retina>] (Merck & Co., Inc.)
Also in Spanish [<https://www.merckmanuals.com/es-us/hogar/trastornos-oft%C3%A1lmos/trastornos-de-la-retina/c%C3%A1nceres-que-afectan-la-retina>]
- Choroideremia [<https://www.fightingblindness.org/diseases/choroideremia>] (Foundation Fighting Blindness)
- Coats Disease [<https://www.aapos.org/glossary/coats-disease>] (American Association for Pediatric Ophthalmology and Strabismus)
- Diabetic Retinopathy [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/diabetic-retinopathy>]  (National Eye Institute)
- Floaters [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/floaters>]  (National Eye Institute)
- Leber Congenital Amaurosis [<https://www.aapos.org/glossary/leber-congenital-amaurosis>] (American Association for Pediatric Ophthalmology and Strabismus)
- Macular Hole [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/macular-hole>]  (National Eye Institute)
- Macular Pucker [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/macular-pucker>]  (National Eye Institute)
Also in Spanish [<https://www.nei.nih.gov/espanol/aprenda-sobre-la-salud-ocular/enfermedades-y-afecciones-de-los-ojos/pliegue-macular>]
- Retinitis Pigmentosa [<https://www.fightingblindness.org/diseases/retinitis-pigmentosa>] (Foundation Fighting Blindness)
- Vitreous Detachment [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/vitreous-detachment>]  (National Eye Institute)
- What Is a Torn Retina? [<https://www.aao.org/eye-health/diseases/what-is-torn-retina>] (American Academy of Ophthalmology)
Also in Spanish [<https://www.aao.org/salud-ocular/enfermedades/qu%C3%A9-es-una-retina-desgarrada>]
- What Is Central Serous Chorioretinopathy? [<https://www.aao.org/eye-health/diseases/what-is-central-serous-retinopathy>] (American Academy of Ophthalmology)
Also in Spanish [<https://www.aao.org/salud-ocular/enfermedades/retinopatia-serosa-central>]

Genetics


- Autosomal Recessive Inheritance [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/biettis-crystalline-dystrophy/autosomal-recessive-inheritance>]  (National Eye Institute)
- Bardet-Biedl syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/bardet-biedl-syndrome>]  (National Library of Medicine)
- Bietti crystalline dystrophy: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/bietti-crystalline-dystrophy>]  (National Library of Medicine)
- Choroideremia: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/choroideremia>]  (National Library of Medicine)
- Coats plus syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/coats-plus-syndrome>]  (National Library of Medicine)
- Cone-rod dystrophy: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/cone-rod-dystrophy>]  (National Library of Medicine)
- Fundus albipunctatus: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/fundus-albipunctatus>]  (National Library of Medicine)

- Knobloch syndrome: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/knobloch-syndrome]  (National Library of Medicine)
- Leber congenital amaurosis: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/leber-congenital-amaurosis]  (National Library of Medicine)
- Mainzer-Saldino syndrome: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/mainzer-saldino-syndrome]  (National Library of Medicine)
- Neuropathy, ataxia, and retinitis pigmentosa: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/neuropathy-ataxia-and-retinitis-pigmentosa]  (National Library of Medicine)
- Refsum disease: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/refsum-disease]  (National Library of Medicine)
- Retinal arterial macroaneurysm with supralvalvular pulmonic stenosis: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/retinal-arterial-macroaneurysm-with-supralvalvular-pulmonic-stenosis]  (National Library of Medicine)
- Retinitis pigmentosa: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/retinitis-pigmentosa]  (National Library of Medicine)
- Senior-Løken syndrome: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/senior-loken-syndrome]  (National Library of Medicine)
- Stargardt macular degeneration: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/stargardt-macular-degeneration]  (National Library of Medicine)
- TRNT1 deficiency: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/trnt1-deficiency]  (National Library of Medicine)
- Vitelliform macular dystrophy: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/vitelliform-macular-dystrophy]  (National Library of Medicine)
- Wagner syndrome: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/wagner-syndrome]  (National Library of Medicine)
- X-linked juvenile retinoschisis: MedlinePlus Genetics [https://medlineplus.gov/genetics/condition/x-linked-juvenile-retinoschisis]  (National Library of Medicine)




Images

- Flashes and Floaters [https://skinsight.com/skin-conditions/flushes-and-floaters/?lmiw9cApl=1] (VisualDX)


Videos and Tutorials

- Retina [https://medlineplus.gov/ency/anatomyvideos/000106.htm]  (Medical Encyclopedia)
Also in Spanish [https://medlineplus.gov/spanish/ency/anatomyvideos/000106.htm]

Statistics and Research

- Eye Health Data and Statistics [https://www.nei.nih.gov/learn-about-eye-health/eye-health-data-and-statistics]  (National Eye Institute)
Also in Spanish [https://www.nei.nih.gov/espanol/aprenda-sobre-la-salud-ocular/datos-y-estadisticas-relacionadas-con-la-salud-ocular]
- NEI-Funded Study Shows Low Blood Sugar Contributes to Eye Damage and Vision Loss in Diabetic Retinopathy [https://www.nei.nih.gov/about/news-and-events/news/nei-funded-study-shows-low-blood-sugar-contributes-eye-damage-and-vision-loss-diabetic-retinopathy]  (National Eye Institute)
- Peptide Eye Drops May Help Protect Vision [https://www.nih.gov/news-events/nih-research-matters/peptide-eye-drops-may-help-protect-vision]  (National Eye Institute)

Clinical Trials


- ClinicalTrials.gov: Retinal Diseases [https://clinicaltrials.gov/search?cond=%22Retinal+Diseases%22&aggFilters=status:not%20rec]  (National Institutes of Health)

Journal Articles


References and abstracts from MEDLINE/PubMed (National Library of Medicine)

- Article: Prevalence and associated factors of vitreoretinal interface disorders using multicolour OCT...
[<https://www.ncbi.nlm.nih.gov/pubmed/40751068>]
- Article: A comparative study of machine learning models for automated detection and...
[<https://www.ncbi.nlm.nih.gov/pubmed/40748964>]
- Article: Whole exome sequencing reveals pathogenic variants in CNGA3, CACNA1F, and RPGRIP1...
[<https://www.ncbi.nlm.nih.gov/pubmed/40737315>]
- Retinal Disorders -- see more articles [<https://pubmed.ncbi.nlm.nih.gov/?term=%22Retinal+Diseases%22%5Bmajr%3Anoexp%5D+AND+humans%5Bmh%5D+AND+english%5Bla%5D+AND+%22last+1+Year%22+%5Bdat%5D+NOT+%28letter%5Bpt%5D+OR+case+reports%5Bpt%5D+OR+editorial%5Bpt%5D+OR+comment%5Bpt%5D%29+AND+free+full+text%5Bsb%5D+>]


Reference Desk

- How the Eyes Work [<https://www.nei.nih.gov/learn-about-eye-health/healthy-vision/how-eyes-work>]
 (National Eye Institute)
Also in Spanish [<https://www.nei.nih.gov/espanol/aprenda-sobre-la-salud-ocular/vision-saludable/como-funcionan-los-ojos>]

Find an Expert

- Find an Ophthalmologist [<https://secure.aao.org/aao/find-ophthalmologist>] (American Academy of Ophthalmology)
Also in Spanish [<https://secure.aao.org/aao/encontrar-ofthalmologo>]
- Finding an Eye Doctor [<https://www.nei.nih.gov/learn-about-eye-health/healthy-vision/finding-eye-doctor>]
 (National Eye Institute)

Children

- Retinopathy of Prematurity [<https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/retinopathy-prematurity>]  (National Eye Institute)

Patient Handouts

- Amaurosis fugax [<https://medlineplus.gov/ency/article/000784.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/000784.htm>]
- Central serous choroidopathy [<https://medlineplus.gov/ency/article/001612.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/001612.htm>]
- Electroretinography [<https://medlineplus.gov/ency/article/003388.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003388.htm>]
- Fluorescein angiography [<https://medlineplus.gov/ency/article/003846.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003846.htm>]
- High blood pressure and eye disease [<https://medlineplus.gov/ency/article/000999.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/000999.htm>]
- Home vision tests [<https://medlineplus.gov/ency/article/003446.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003446.htm>]
- Intravitreal injection [<https://medlineplus.gov/ency/article/007629.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/007629.htm>]
- Retinal artery occlusion [<https://medlineplus.gov/ency/article/001028.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/001028.htm>]
- Retinal vein occlusion [<https://medlineplus.gov/ency/article/007330.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/007330.htm>]



MEDICAL ENCYCLOPEDIA

Amaurosis fugax [<https://medlineplus.gov/ency/article/000784.htm>]

Central serous choroidopathy [<https://medlineplus.gov/ency/article/001612.htm>]

Electroretinography [<https://medlineplus.gov/ency/article/003388.htm>]

Fluorescein angiography [<https://medlineplus.gov/ency/article/003846.htm>]

High blood pressure and eye disease [<https://medlineplus.gov/ency/article/000999.htm>]

Home vision tests [<https://medlineplus.gov/ency/article/003446.htm>]

Intravitreal injection [<https://medlineplus.gov/ency/article/007629.htm>]

Ophthalmoscopy [<https://medlineplus.gov/ency/article/003881.htm>]

Retina [<https://medlineplus.gov/ency/anatomyvideos/000106.htm>]

Retinal artery occlusion [<https://medlineplus.gov/ency/article/001028.htm>]

Retinal detachment repair - series [https://medlineplus.gov/ency/presentations/100132_1.htm]

Retinal vein occlusion [<https://medlineplus.gov/ency/article/007330.htm>]

Retinitis pigmentosa [<https://medlineplus.gov/ency/article/001029.htm>]

Retinopathy of prematurity [<https://medlineplus.gov/ency/article/001618.htm>]

Slit-lamp exam [<https://medlineplus.gov/ency/article/003880.htm>]

Standard eye exam [<https://medlineplus.gov/ency/article/003434.htm>]

Related Health Topics

Diabetic Eye Problems [<https://medlineplus.gov/diabeticeyeproblems.html>]

Eye Diseases [<https://medlineplus.gov/eyediseases.html>]

Macular Degeneration [<https://medlineplus.gov/maculardegeneration.html>]

Retinal Detachment [<https://medlineplus.gov/retinaldetachment.html>]

Usher Syndrome [<https://medlineplus.gov/ushersyndrome.html>]

The primary NIH organization for research on *Retinal Disorders* is the National Eye Institute [<https://nei.nih.gov/>]

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