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Color Blindness

Most of us see our world in color. We enjoy looking at a lush green lawn or a red rose in full bloom. If you have a color vision defect, you may see these colors differently than most people.

There are three main kinds of color vision defects. Red-green color vision defects are the most common. This type occurs in men more than in women. The other major types are blue-yellow color vision defects and a complete absence of color vision.

Most of the time, color blindness is genetic. There is no treatment, but most people adjust and the condition doesn't limit their activities.



Start Here

- [Color Blindness \[https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/color-blindness\]](https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/color-blindness)
 (National Eye Institute)
- [What Is Color Blindness? \[https://www.aao.org/eye-health/diseases/what-is-color-blindness\]](https://www.aao.org/eye-health/diseases/what-is-color-blindness)
(American Academy of Ophthalmology)
Also in Spanish [https://www.aao.org/salud-ocular/enfermedades/daltonismo]


Specifics

- [Achromatopsia \[https://www.aapos.org/glossary/achromatopsia\]](https://www.aapos.org/glossary/achromatopsia) (American Association for Pediatric Ophthalmology and Strabismus)


Genetics

- [Achromatopsia: MedlinePlus Genetics \[https://medlineplus.gov/genetics/condition/achromatopsia\]](https://medlineplus.gov/genetics/condition/achromatopsia)
 (National Library of Medicine)
- [Color vision deficiency: MedlinePlus Genetics \[https://medlineplus.gov/genetics/condition/color-vision-deficiency\]](https://medlineplus.gov/genetics/condition/color-vision-deficiency)
 (National Library of Medicine)

Statistics and Research

- [Eye Health Data and Statistics \[https://www.nei.nih.gov/learn-about-eye-health/eye-health-data-and-statistics\]](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]

Clinical Trials


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

Journal Articles



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

- Article: Perceived ability and influencing factors of the signage system for color...
[<https://www.ncbi.nlm.nih.gov/pubmed/40424876>]
- Article: Discrepancies Between Autofluorescence Imaging Modalities in CNGB3-Associated Achromatopsia and Correlation With... [https://www.ncbi.nlm.nih.gov/pubmed/40423615]
- Article: Comprehensive functional splicing analysis of non-canonical CNGB3 variants using in vitro...
[https://www.ncbi.nlm.nih.gov/pubmed/40304364]
- Color Blindness -- see more articles [https://pubmed.ncbi.nlm.nih.gov/?term=%22Color+Vision+Defects%22%5Bmajr%3Anoexp%5D+AND+humans%5Bmh%5D+AND+english%5Bla%5D+AND+%22last+1+Year%22+%5Bedat%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+]

Find an Expert

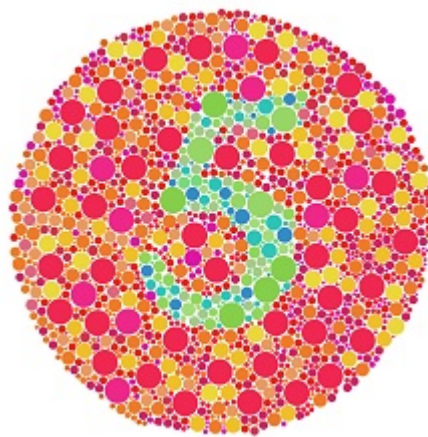
- Find an Ophthalmologist [https://secure.aao.org/aao/find-ophthalmologist] (American Academy of Ophthalmology)
Also in Spanish [https://secure.aao.org/aao/encontrar-ofthalmologo]
- National Eye Institute [https://www.nei.nih.gov/] 

Children

- Ask a Scientist: What Is Color Blindness? [https://www.nei.nih.gov/learn-about-eye-health/nei-for-kids/ask-scientist-video-series]   (National Eye Institute)
- Color Blindness [https://aapos.org/glossary/color-blindness] (American Association for Pediatric Ophthalmology and Strabismus)

Patient Handouts

- Color blindness [https://medlineplus.gov/ency/article/001002.htm] (Medical Encyclopedia)
Also in Spanish [https://medlineplus.gov/spanish/ency/article/001002.htm]
- Color vision test [https://medlineplus.gov/ency/article/003387.htm] (Medical Encyclopedia)
Also in Spanish [https://medlineplus.gov/spanish/ency/article/003387.htm]



MEDICAL ENCYCLOPEDIA

Color blindness [https://medlineplus.gov/ency/article/001002.htm]

Color vision test [https://medlineplus.gov/ency/article/003387.htm]

Related Health Topics

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

National Institutes of Health

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

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