

COLOR BLINDNESS AND PERCEPTION OF COLOR

99% of People with Color Blindness are Red-Green Color Blind

While Fathers Can't Pass on Color Blindness to Their Sons, if a Woman is Red-Green Colorblind, All of Her Sons Will be Too

While most color blindness is genetic it is still possible to acquire color blindness. It is important to understand color blindness and how to be prepared for lifestyle changes and adjustments.

Please use this guide as a resource for knowledge and understanding of color blindness causes, symptoms, diagnosis, and treatment.

01 | Cause

The eye is comprised of photoreceptors called cones that perceive color in blue, red or green light. Color blindness occurs when these cones work improperly or are missing within the eye. Inherited color blindness is most common and will cause one or more colors to not be perceived within the eye. Most color vision problems are genetic and are present at birth. However, a color vision problem isn't always inherited; acquired color blindness can be caused by:

- Aging
- Eye Disease
- Illness
- Injury
- Medication Side Effects

02 | Symptoms

Symptoms may vary between different causes and from person to person. Some individuals may not be able to see green, but see red and blue; or someone may be able to see blue and green but not red etc. The eye may perceive many colors but not differentiate in shade, or you may not know you are seeing a color differently. Color perception can also be effected by contrast, or amount of light. Very rarely will an individual suffer from monochromacy in which they cannot perceive any color and only see in shades of grey, white and black.

03 | Diagnosis

Color blindness that is not inherited can be self-diagnosed as gradual or immediate changes in vision and colors. Genetic or inherited color blindness can be difficult to test until a child has reached an age where they can identify shapes, patterns and know how to sort objects. Detecting any color vision problem early is critical in a child's development. Testing in which includes pattern identification can help diagnose color blindness and identify levels of the condition.

Verification of any color vision problems can be tested by an ophthalmologist.

04 | Treatment

There is no treatment or cure for genetic color blindness. There are some different options to help or assist in color differentiation. Wearing certain lenses can help with color perception, but may cause object distortion. Lenses can assist with brightness and glare to allow improve color perception. Treatment for acquired color vision problems is dependent on the severity and cause. Overall color blindness requires a lifestyle change in order to adapt, accept and navigate through life challenges.

Learn more about ophthalmic conditions, risks, and symptoms at: <http://aao.org>

***Did You Know?
More males than females
are color blind***

References

<http://www.webmd.com/eye-health/tc/color-blindness-topic-overview#1>

<https://www.aao.org/eye-health/diseases/what-is-color-blindness>