



Color Vision Deficiency & Chemistrie Color Lenses

The Following Information has been Prepared for You:

Color vision deficiency or color blindness is the inability to detect the difference in colors, or to not see colors at all. It occurs when the color-sensing cells in the retina, called "cones," are either absent or not working. There are three types of cones in a normal eye: red, blue and green. When these cones are disproportionate to one another, or some are absent or malfunctioning, color vision deficiency occurs. About 8% of males and 1% of females have some degree of color vision deficiency.

"Congenital" color vision deficiency is the most common form. It is inherited through the "X" chromosome donated from a baby's mother. The mother is usually a carrier of the trait, but does not have color vision loss herself. She likely acquired the gene from her father, or the baby's grandfather. Patients with this form are often "red/green" deficient, meaning that they have trouble distinguishing different shades of red or green, and difficulty telling red and green apart. "Blue/yellow" color vision deficiency is another form.

"Acquired" color vision loss occurs from cataracts, optic nerve or retina disease, aging, and some medications. The underlying cause needs to be identified and treated accordingly.

Children should have their color vision checked by their eye doctor by the age of 4. Color vision loss poses no threat to the overall health of the eye, and does not interfere with daily life. In most cases, it is just an inconvenience. If your child has been diagnosed with color vision deficiency, you may find it helpful to label their clothes or accessories, teach them to recognize traffic lights by their position, and learn to recognize road signs by their shape. Inform their teacher of this condition and watch out for books or text that is written in color or printed on a colored background instead of black and white. If they are required to use certain colored crayons, pencils, markers, or paint, make sure the items are clearly labeled.

New research and technological advances have shown that certain colored filters can help individuals with color blindness to better detect differences in colored objects. They may help increase acuity, depth perception, contrast sensitivity and overall visual satisfaction. These filters may also assist with light sensitivity, which is present in many individuals with moderate color vision deficiency. Our optical shop offers a brand of these called "Chemistrie Color." There have also been contact lenses made for this purpose. Ask our staff if you would like to try either of these.

Please Rate the Information You Received

	☐ Very helpful - all questions are answered ☐ Somewhat helpful - I still have questions ☐ Not helpful - none of my questions were answered
Comments / Questions / Typos:	

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