

**COLORLITE<sup>®</sup>**

**Color Vision Diagnostic and Correction System**  
to provide personalized  
**Color Blindness Correction Glasses**  
to your patients in any prescription!

## Why color vision is important?

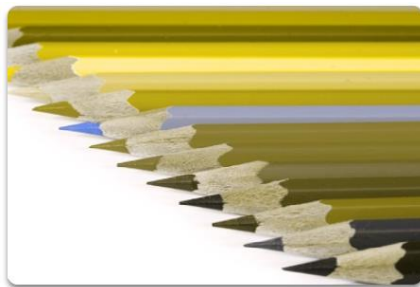


The lack of information received due to color blindness slows down, comprehension. Creates a slower reaction time and lowers a person's quality of life.

Children with Color Vision Deficiency often struggle at school. They have trouble learning their colors, understanding color coded information.

When a person has CVD, one or more of the three primary colors is not detected correctly.

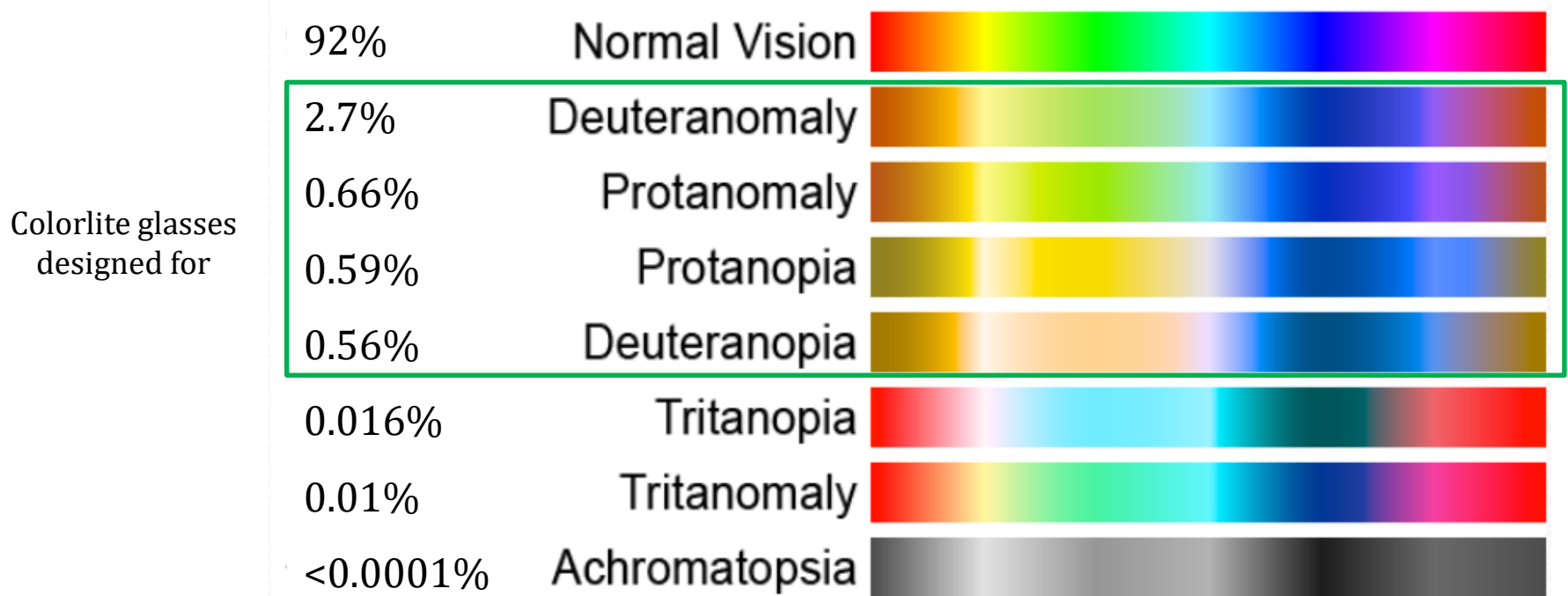
**8% of men** and 0.5% of women have Color Vision Deficiency (CVD), also known as color blindness (CB).



# Types of Color Vision Deficiencies



**Protanomaly/Deuteranomaly** affects the red/green cone cells, and people also have trouble distinguishing reds and greens. **Protanopia/deutanopia** occurs when the red/green cone cells aren't functioning.



# Colorlite's Color vision diagnostic and correction system

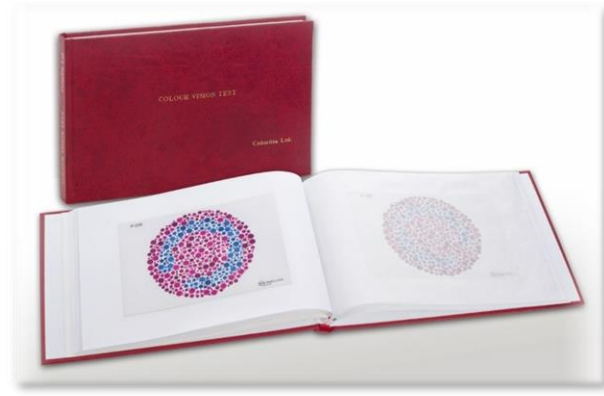


Based on the results of the exam, you will be able to provide your patient with a prescription for a lens to correct their color vision deficiency.

The system includes Colorlite trial lenses and our Colorlite diagnostic book.

You should be able to find the best lens for the patient in 20 minutes.

The lenses can come with or without a vision prescription and can be cut to fit most frames.



# Colorlite's Diagnostic

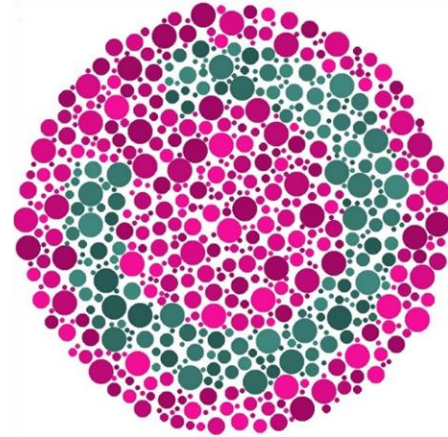
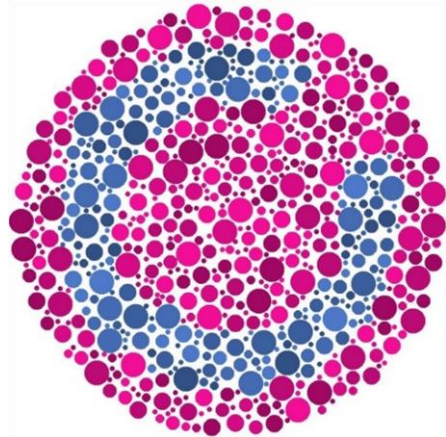
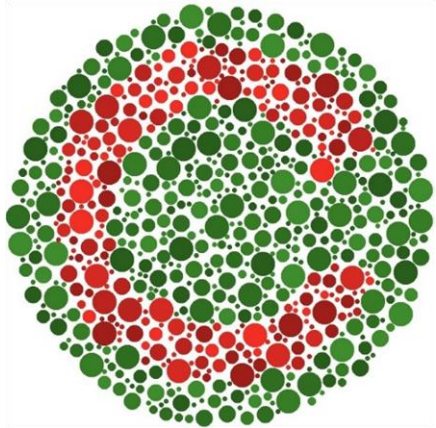


The test book contains three series of images:

The first: red-green images. Using this series, we test whether the patient has CVD and we can also test the effectiveness of the trial lenses.

The second is purple-blue (P) and the third is purple-green (D). These help us to generate an exact diagnosis, whether the patient has a green (deutan) or red (protan) type of CVD.

<https://www.colorlitelens.com/color-blindness-test.html#Redgreen>

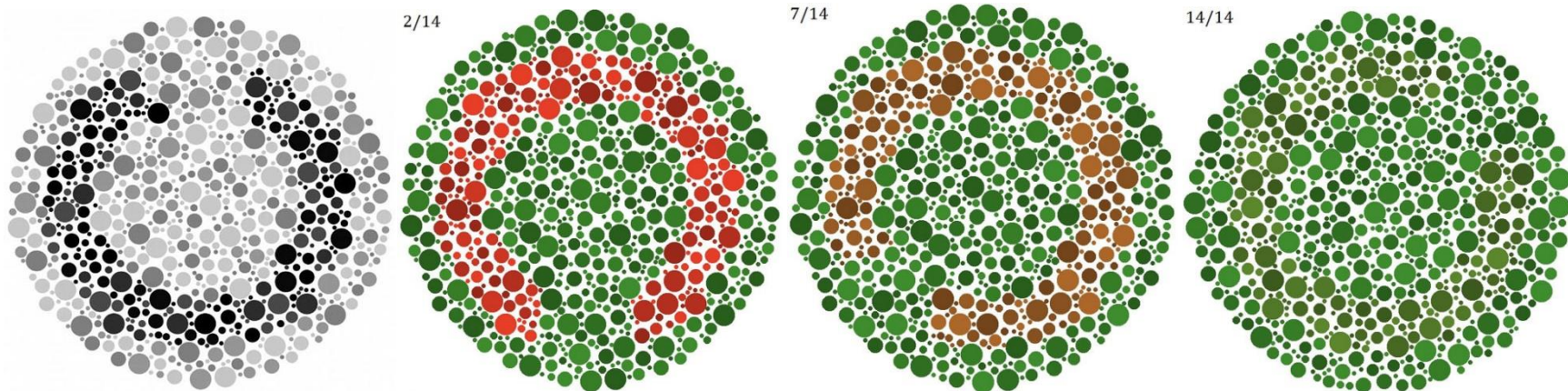


# Colorlite's Diagnostic



As an introduction to the test, please show the first black and white test image to the patient.

Then, show the patient the first red-green image, number 300. Continue to show each image in order. The images will become less recognizable. When you get to the image where the patient can no longer recognize the gap of the ring, this image number represents the patient's color discrimination ability.



## Determine type of color blindness



In the next step, we will determine the patient's type of CVD (protan/red or deutan/green). Repeat the above process on the purple-blue (P) series of images and the purple-green (D) series of images.

If the purple-blue number is higher than the purple-green, then the patient has the protan type of CVD.

If the purple-green series has a higher number, than the purple-blue, then the patient has the deutan type of CVD.

If the numbers of both series are equal, then the individual has deutan type of CVD.

Lenses P10, P15, P20, P25 and P30 are designed for protan, while lenses D10, D15, D20, D25 and D30 are designed for deutan.



## Find the best correction lenses



Put the first pair of appropriate correction lenses (if protan, put P10, if deutan, put D10) into the universal trial frame and let the patient adapt to the new colored environment. Adaptation takes, at least, 2 minutes.

Color adaptation is an important part of the color vision correction process. The time of the color adaptation can be shortened by using a well illuminated white surface.

Repeat the above process with this lens on the red-green series in the test book and record the results of assessment. Perform the test with the 5 pairs of lenses (P or D 10, 15, 20, 25, 30), and be sure to view each page of the red-green series consecutively.

The best result is when the patient sees the lowest number image.





# Chromatic adaptation



When first put on, the lenses may make the environment appear to have a strong reddish

Naturally, the eyes adjust to this color imbalance after wearing the lenses for 90-120 seconds.

White is then seen as white again, and color constancy is completely rebalanced.

This is known as chromatic adaptation and is an important part of the color blindness correction process.

## Important notes & Environment



If two types of correction lenses produce the same result (example D20 and D25), always choose the less colored one (D20).

Color vision deficiency is complex. If the test states one type of color vision (ie/ Protan) and the protan lenses don't seem to be giving enough color correction, you may try all the lenses (protan and deutan). If you find a deutan lens that offers better correction for your patient then that is the correct lens.

The recommended illumination of the test book is around 600 - 800 lux. Sunlight is the preferred source. If you are using artificial lighting, then a halogen bulb should be used. The light should not cause a glare on the test images. Try to provide a relaxed and friendly atmosphere throughout the diagnostic exam.



# Lenses



Colorlite use a 1,5 CR39, Hoya plastic lenses for producing the color vision correction lenses.

One focus lenses, HILUX 1.5

Range:  $\pm 6,00$  Sph & max  $\pm 2,00$  Cyl

Extended range: + 8,00 / - 10,00 Sph dioptria & max 4,00 Cyl

Diameter 65-75 mm, default 70 mm

Progressive lenses (+ 6,00 / - 8,00 Sph dioptria & max 4,00 Cyl)

HOYALUX Daynamic /Balance (tunnel length 11 or 14 mm)

Amplitude lenses (tunnel length 15 or 11 mm )

Addpower 60 trueform lenses

MAXXEE Multifocal lenses (tunnel length 15 or 11 mm)

Anti-scratch + UV 400 layer is recommended

Order the lenses on the online Rx form!



# Limitations



At this moment, we cannot manufacture lenses:

- With high refractive index
- With anti-reflex coating
- On polycarbonate basis

Colorlite glasses **cannot used** with **sunglasses!**

Absorb maximum 40% of the incoming light.

More absorption would significantly decrease the effectiveness of the color blindness correction. **UV protection** is recommended!

We **do not** recommend the **use** of Colorlite glasses **at night.**

Colorlite **glasses are colored!**

The tints are a side effect of this technology.

The color spectrum is changed by colored coatings.



## Testimonials



„I got my Colorlite glasses and they worked great! I am so happy!”

„When I first put the glasses on, I was actually very surprised how much of a difference they made.”

„The reds were so bright; I did not even believe that it was right at first.”  
„I fell in love with the STOP sign!”

„Fall foliage glowed in a very pretty way,  
I had never seen before. I cannot be happier.”

„I passed the Ishihara test easily with these glasses on!”

„There are colors I did not know before.”

„It is a great experience!”

„Anyone thinking about it should really try them!”



**Welcome to the wonderful  
world of color!**



**COLORLITE<sup>®</sup>**

**Thank you your attention!**

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[info@colorlitelens.com](mailto:info@colorlitelens.com)

