# TWOP TIPS

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## BLINDNESS





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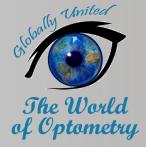
### DRAG TO THE SIDE **#TwopTips**

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Under standard lighting conditions, it is the inability to differentiate certain shades of colour. While the word "colour blindness" is more widely used to describe this disease, only a small percentage of people are fully colour blind.

#### Prevalence

Males are affected much more often than females. In general, colour deficiency affects 1 in 12 males and 1 in 200 females in the population.



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### TIPS

#### What Causes Colour Vision Deficiency?

- Cones, which are photoreceptors in the retina, allow for colour vision. Light-sensitive pigments in these cones enable us to recognise colour. Each cone in the macula (the retina's central region) is responsive to red, green, or blue light. The wavelengths of these lights are recognised by the cones.
- The pigments inside the cones normally register different colours and transmit the information to the brain through the optic nerve. This allows us to differentiate a wide range of colour shades. However, if one or more light-sensitive pigments are missing from the cones, we would be unable to see one or more of the three primary colours.





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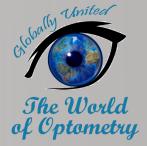
## **Different Types of Colour Vision Deficiency:**

- Normal colour vision
- Deuteranopia usually confuse the difference between green/red, red/brown
- **Protanopia** usually confuse the
  - difference between red/black, blue/purple etc
  - Tritanopia usually confuse the difference between blue/green, orange/red etc.

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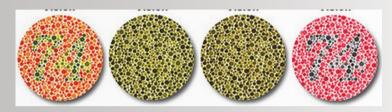
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#### **Importance of Early Detection:**



Color vision deficiency was discovered in 33 of 1,250 adolescents in a local study. There's a relatively large number of adolescents who have been diagnosed, with the majority of them being diagnosed after they have completed primary school. Only visual acuity and stereopsis are currently used in vision screenings in local schools.

The secret to overcoming the limitations imposed by colour vision impairment is early detection. While colour vision impairment is not life threatening, it does have an impact on one's quality of life. Some patients can experience long-term effects, such as being mislabeled as slow learners in school or being uncooperative during play. All of this may lead to low self-esteem and social withdrawal symptoms in children.





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#### **Diagnosis:**



The most common colour vision test is performed. However, since preschoolers are expected to name numbers aloud, the precision of this evaluation can be restricted. Even if they interpret the right colour, numbers can be foreign to young children. Color Vision Testing Made Easy colour plates have been launched by Cordlife. This test is widely regarded as the gold standard for diagnosing colour vision impairment, especially in children.



#### TIPS

**Challenges of Colour Vision Deficiency:** 

Many of the activities we perform daily depend on our ability to distinguish objects based on their colour. Colour vision loss comes in various degrees. Colour vision capacity is often affected by the strength of the light and the size of the object.

People must depend on other cues if they are unable to see the colour difference. For instance, a person can only be able to distinguish between red and green traffic lights based on their location (red above green). This could be difficult to do on a dark, rainy night.







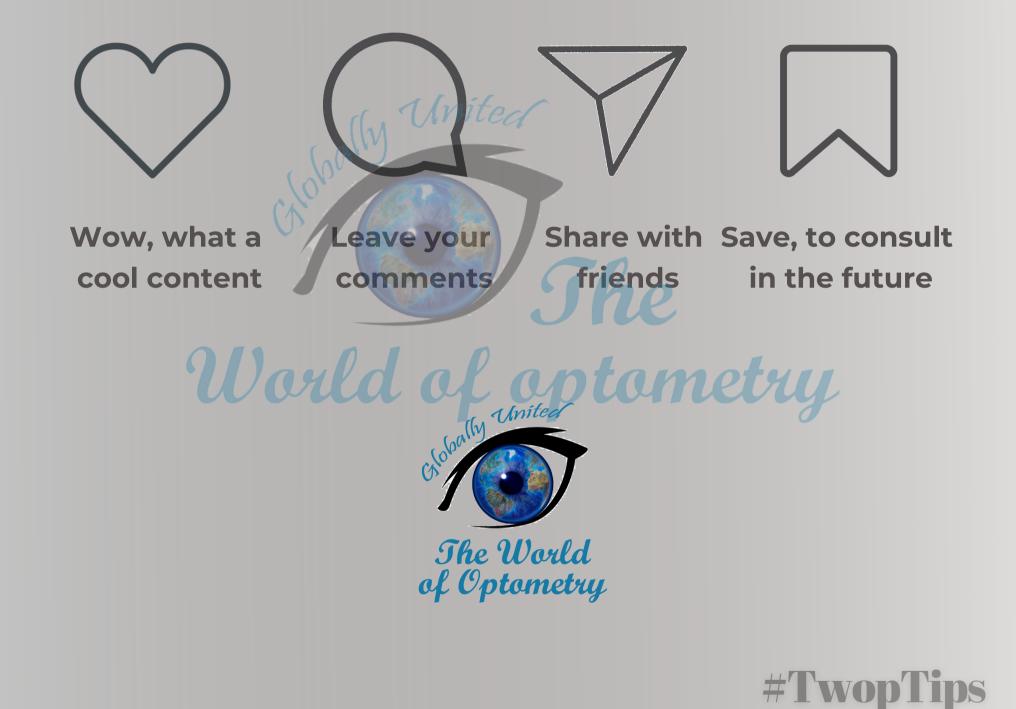
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## Driving & Colour Vision Deficiency

People who have a red-green colour vision disorder may obtain a driver's licence or a motorcycle licence. A commercial driver's licence is also available to them. People with low contrast sensitivity, on the other hand, can face limitations on their driver's licence, such as not being allowed to drive at night.



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