

## What is colorblindness?

Color blindness (color vision deficiency) is a condition in which certain colors cannot be distinguished, and is most commonly due to an inherited condition. Red/Green color blindness is by far the most common form, about 99%, and causes problems in distinguishing reds and greens. Another color deficiency Blue/Yellow also exists but is rare and there is no commonly available test for it.

- Depending on just which figures you believe, color blindness seems to occur in about 8% - 12% of males of European origin and about one-half of 1% of females. I did not find any figures for frequency in other races. Total color blindness (seeing in only shades of gray) is extremely rare.
- There is no treatment for color blindness, nor is it usually the cause of any significant disability. However, it can be very frustrating for individuals affected by it. Those who are not colorblind seem to have the misconception that color blindness means that a colorblind person sees only in black and white or shades of gray. While this sort of condition is possible, it is extremely rare. Being colorblind does keep one from performing certain jobs and makes others difficult.

### Life's minor frustrations (and occasional dangers) for the color blind:

- **Weather forecasts** - especially the Weather Channel - where certain colors just cannot be distinguished on their weather maps. Also, maps in general because of the color-coding on the legends.
- **Bi-color and tri-color LEDs** (Light Emitting Diodes): Is that glowing indicator light red, yellow, or green?
- **Traffic lights**, and worst of all, Caution lights: Color blind people always know the position of the colors on the traffic light - in most states, Red on top, Yellow in the center, Green (or is that blue?) on the bottom. It isn't good when we go to a city or state where they put traffic lights horizontal - it takes a couple of days to get used to that one! But caution lights present an entirely different problem. In this situation there is only one light; no top or bottom, no right or left, just one light that is either red or yellow - but which is it?
- **Getting in the sun with your girlfriend:** So, you're out in the boat or on the beach with your girlfriend and soaking up the rays. But I can't tell until far too late if I'm getting red - or if she is. If I can tell it's red, by that time it's fire engine red and painful sunburn is already present.
- **Color observation by others:** "Look at those lovely pink flowers on that shrub". My reply, looking at a greenish shrub "What flowers?"
- **Purchasing clothing:** I've got some really neat colors of clothes. Not everyone appreciates them like I do though; they seem to think the colors are strange. I just don't know why!
- **Kids and crayons:** Color vision deficiencies bother affected children from the earliest years. At school, coloring can become a difficulty when one has to take the blue crayon -and not the pink one- to color the ocean.
- **Test strips for hard water, pH, swimming pools, etc.:** A color blind person is generally unable to:
  - interpret some chemical reactions
  - see that litmus paper turns red by acid
  - identify a material by the color of its flame such as lead blue or potassium purple
  - interpret the chemical testing kits for swimming pool water, test strips for hard water, soil or water pH tests - all of which rely on subtle color differences and a band of similar colors to compare against.
- **Cooking and foods:**
  - When cooking, red deficient individuals cannot tell whether their piece of meat is raw or well done. Many cannot tell the difference between green and ripe tomatoes or between ketchup and chocolate syrup.
  - Some food can even look definitely disgusting to color deficient individuals. For example, people with a green deficiency cannot possibly eat spinach which to them just look like cow pat. They can however distinguish some citrus fruits. Oranges seem to be of a brighter yellow than that of lemons.
- **Are you wearing lipstick?** Many colorblind people cannot tell whether a woman is wearing lipstick or not. More difficult to handle for some is the inability to make the difference between a blue-eyed blonde and a green-eyed redhead.