Color Blindness

Color blindness is a weakened ability to tell colors apart. It may be hard to make out different shades of color. In rare cases, a person is not able to see red or green. Rather, things are seen in shades of gray. Color blindness may vary from mild to severe.

CAUSES

- Usually, this is an inherited condition (through birth). It is often passed from mothers to their sons. It can be passed to daughters, but the daughters are not affected. Daughters have one normal set of genes that allow them to see color. Men do not have the one normal set of genes to offset the color blindness causing genes. The inherited color blindness seen in men is usually of the red-green deficiency type.
- Color blindness may also be due to certain diseases of the eye. This includes disorders of:
  - The main nerve from the eye to the brain (*optic nerve*).
  - The brain.
- Color blindness may also be due to:
  - Side effects from certain chemicals.
  - Not getting enough Vitamin A.
- Diseases of the main focusing part of the retina (*macula*) can compromise color perception. With retina related disease, it is hard to make out blue-yellow colors.

SYMPTOMS

- You have difficulty making out colors in the red-green spectrum. This usually becomes noticeable in boys during early childhood in the case of inherited color blindness.
- Color blindness due to a secondary cause becomes clear at the onset of the illness or condition at fault.

DIAGNOSIS

Color vision is diagnosed using images of numbers made up of a mixture of colors (*Ishihara test*). One eye is tested at a time. A color blind person may see different numbers than a person with normal color vision. This testing may help to diagnose the type of color vision problem a person has.

More testing is available, but most eye doctors use the Ishihara test in their offices since it is easy, non-invasive and provides a quick diagnosis.

TREATMENT

There is no treatment available for inherited color blindness. The treatment of color blindness related to other diseases lies in the treatment of the underlying diseases. Treating the underlying disease may or may not improve the ability to tell the difference between colors again.

SEEK MEDICAL CARE IF:

- You are not able to make out colors in any shade or color type.

SEEK IMMEDIATE MEDICAL CARE IF:

- Your are suddenly not able to make out colors in any shade or color type.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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