



**Bedfordshire  
Community  
Health Services**



## Colour Vision

# Bedfordshire Children's Eye Services



Bedfordshire adult and children's community health services are provided in partnership by East London NHS Foundation Trust (ELFT) and Cambridgeshire Community Services (CCS) NHS Trust

## **Colour Vision**

Colour vision defects are caused by the inability to distinguish certain colours. They occur when one or more of the cone types (colour detection cells) in the back of the eye are missing or are defective. This affects 1 in 12 men and 1 in 200 women. In the majority of cases the mother passes on the gene to her sons. The cones may be absent entirely, or may be present, but unable to manufacture the necessary signals to the brain.

Red-green colour deficiency usually means difficulty identifying or distinguishing colours of which red or green is a component e.g. telling blue from purple, dark green from dark brown or light pastel blue from light pastel pink.

### **There is no treatment for colour blindness**

Although deficient colour vision is a relatively mild disorder, children may find learning their colours particularly difficult.

Colours look different when you have a colour vision problem. For example, grass looks green to people who see colour normally but may appear as orange for people with certain types of colour vision defects.

There is also a marked reduction in the number of separate colours that can be distinguished so a person with normal colour vision can see different colours, but the person with defective colour vision finds that they look the same.

## **Work Requirements**

Colours are constantly used to distinguish the difference between objects in everyday life. The use of colour extends to the work environment and so it affects jobs and careers which require some degree of colour identification. These careers vary in the extent of reliance on colour vision, and have been grouped into categories depending on if it is desirable or vital for operatives to have normal colour vision. This list can never be comprehensive and many jobs fall into several categories as there are often different activities within a specific trade, profession or occupation.

## **Careers requiring perfect colour vision**

- **Armed Forces (British)**- certain grades in the Air Force, Army & Navy
- **Civil Aviation/Navigation** – pilot, fisherman & railways
- **Colour Matcher** in dyeing, textiles, paints, inks, coloured paper, ceramics & cosmetics.
- **Electrical Work** – electrician, colour TV mechanic, motor mechanic & telephone installer
- **Police/Fire Service** - certain grades

More information is available on [www.colourblindawareness.org](http://www.colourblindawareness.org)

**If you have any questions regarding the treatment of your child's eye condition, please discuss them with the Orthoptist.**

For further information about this service contact:

**Community Eye Service**

Enhanced Service Centre  
Bedford Health Village  
3 Kimbolton Road  
Bedford, MK40 2NT

**Community Eye Service**

Liverpool Road Health Centre  
9 Mersey Place  
Liverpool Road  
Luton, LU1 1HH



Children's Community  
**Health HUB**



**Your one stop  
contact point**

**Tel: 0300 555 0606**

**Email: [ccs.bedsandlutonchildrenshealthhub@nhs.net](mailto:ccs.bedsandlutonchildrenshealthhub@nhs.net)**

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