



# Faulty Colour Vision

## Patient Information Sheet

### North Yorkshire Local Optometric Committee

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#### Who might have faulty colour vision?

It is usually an inherited condition that mostly affects men and boys. Around 8 males in 100 have some degree of faulty colour vision, compared with only 1 female in 200. Very rarely, colour vision can become faulty as a result of a medical condition.

There is no cure for faulty colour vision. Sometimes a red contact lens can be used in one eye. This doesn't cure the problem: it "cheats" the colour vision tests because of the way they work.

#### How does it affect eyesight?

Most people with faulty colour vision are not colour blind. They are simply less sensitive to particular colours - often green, sometimes red - than those with normal vision. They still see grass as green! But they have difficulty distinguishing between different shades of green or red. They may also have difficulty if there is only a very small amount of colour, such as in a distant traffic light.

A few people are completely colour blind. They cannot see most colours and view the world in black, grey and white.

#### How do we test for faulty colour vision?

The most common test consists of circles made up of coloured dots. People with normal vision can correctly read a number among the dots. This is the "Ishihara" test, which is very good at picking up even tiny defects. We also use other tests, such as the City University Test (known as TCU) to distinguish moderate and severe defects, although slight defects can pass without any problem. The police often require applicants to the force to take the TCU test - usually the second edition.

### **Why does it matter?**

Most people with a small degree of faulty colour vision go through life with no trouble at all. It doesn't affect vision or general health. However, certain kinds of work need excellent colour vision:

- Colour printing
- Paint matching (such as to repair a car)
- Driving trains (because of the signals)
- Some electrical work (coloured wiring)
- Police work
- The Fire Service
- Certain jobs in the Armed Forces
- Commercial flying

If a child has very faulty colour vision, it is useful to find out early as they will have difficulty with colours in class and teachers need to know. If you suspect a problem, ask your optometrist for a colour vision check when your child has an eye examination.

In most cases the defect will be slight so it simply needs to be borne in mind when considering a career. A check during year 7 should be enough. Again, ask your optometrist to test colour vision during a routine check-up.

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