



What is colour blindness?

We see colour through 3 types of cone cells in our eyes, which absorb red, green or blue light. With colour blindness one type doesn't operate normally. Most types of colour blindness involve defects in red or green cones, meaning **many** colour combinations can be confusing.

Why is it an issue in sport?

Statistically colour blindness affects at least one player in every male football squad. Our research has revealed this is true at all levels and that some colour blind players are unaware of the potential negative impact it has on them.

TASK: Name the five clearly different bib colours in the image on the left then check if you are correct on the bottom of page 2.



Normal vision



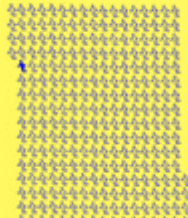
Colour blind simulation

Colour blindness (colour vision deficiency, CVD) is one of the world's most common inherited conditions. Statistically it affects...

1 in 12 men



1 in 200 women



Approximately
300 million people



worldwide

If you are not colour blind it can be difficult to imagine the problems it can cause in training and matches.

- There are different types and severities of CVD
- Colour blind people don't all have problems with the same colour combinations
- To many colour blind people both images in some sets of images in this factsheet appear identical
- Supporting colour blind players can help improve performance of the whole team
- Although colour blindness affects mostly men, female players can also be affected

If you have noticed that you (or a teammate) may

- Have problems telling your team kit from the opposition
- Stop/hesitate on the ball before passing when certain kit colour combinations are used
- Inadvertently pass to the opposition, particularly in training when team compositions are constantly changing
- Take the ball beyond the playing area without realising
- Have problems in fitness training activities based around coloured equipment
- Have difficulty spotting red and orange cones on green surfaces

you or your teammate could have colour blindness.

Normal vision



Colour blind simulation



The three orange cones visible in the 'normal' image are invisible in the colour blind simulation



Normal vision



CVD simulation



Normal vision



CVD simulation

For people with full colour vision, red and green are as different as blue and yellow. If, to you, reds, greens, browns and oranges seem to be different shades of a similar colour, or if you sometimes confuse blues and purples, there is a reasonable chance you could be colour blind. You may also have struggled to understand information in colour at school.

You don't need to reveal a CVD diagnosis to your club, but if you feel able to this should help you to be better supported, which in turn should lead to improvement in your overall performance and well-being.

Common challenges in training

- Distinguishing between kit/bib colours
- Distinguishing equipment from the pitch/other equipment, e.g. balls/cones/line markings/corner flags
- Tactical training - distinguishing between team colours on magnetic boards
- Classroom training, distinguishing
 - Between pen colours on whiteboards e.g. between red and green or red and black
 - Graphical information such as following a specific player in TV footage replays
 - Being unable to spot/follow laser pointers

Common challenges in matches

- Distinguishing between kit colours of
 - The outfield players
 - Outfield players and goalkeepers
 - Outfield players and match officials
- Players' kit disappearing against the colour of the pitch
- Following the ball against the pitch/stands
- Problems distinguishing kit/equipment under different types of lighting e.g., moving from shade into sunlight, floodlighting

Did you know that some colour blind International players and coaches including Petit (Portugal), Matt Holland (Republic of Ireland), Thomas Delaney (Denmark), Ralf Rangnick and Lars Lagerbäck have all publicly discussed their colour blindness?

Womens' Super League player Remi Allen has also highlighted problems she has faced in matches.

Your concerns

You will probably be concerned that by revealing your diagnosis

- You might not be selected for matches
- You might be blamed for injuries to yourself or your teammates
- You might not be selected or could be benched during a game

What can be done to support you?

If you think you might have CVD or if you have already been diagnosed let your coach/manager know.

If you have a professional contract, ensure you discuss your colour blindness with your legal team and players' union to ensure they fully understand your condition and how you need to be properly supported.

Effective strategies for clubs/coaches to support you

Your club can

- Provide training for coaches to ensure they understand how to support colour blind players
- Ensure kits and other equipment used by the club do not cause problems for colour blind people
- Select kits for games which avoid kit 'clashes'
- Ensure line markings and other information and equipment at training facilities are clearly visible to colour blind players
- Review other training information and materials to ensure you can understand all of the information.

Many elite players and coaches have spoken out about being colour blind. Speaking out can help to improve the overall performance of your team and you could also be a role model for younger colour blind players.



For more information and support visit www.colourblindawareness.org, and via this QR code watch The Colourful Game

Which colours did you see on page 1?

The correct answers to the bibs question are 1 red, 2 purple, 3 blue, 4 lime green and 5 orange.

