

## Color Blindness

### Colors that Work the Best for the Color Blind

Contrasting colors or colors on the opposite ends of the color spectrum work best for color blind users (e.g., white and black is the best example). A good practice may be to create the site in grey scale colors because elements should never rely solely on color.

Each element should have more than one cue. Images, links, buttons, and other similar elements should be enhanced with an image, shape, positioning or text. For example, a link should be highlighted by color as well as underlined. Take away the color treatment and the underline will let visitors with color blindness know that it is a link.

Image maps also pose a problem for color blind users. Image maps have clickable areas that are often delineated by color. Options are to add underlined text to the clickable areas or a black outline around the images (e.g., outline around a state on a map).

It is considered a best practice to use bright colors. People who have color deficiencies can see all the colors but they have a problem differentiating between them so using bright, bold colors helps.

Other issues to consider are the contrast between colors and the background. People with color blindness are less sensitive to colors on either end of the spectrum. For example, reds and blues often appear to be darker to the color blind user.

### Why Bother

Some will argue about why sites should be designed with such a small population in mind or to meet the needs of a minority. There are several reasons: 1) a site should always strive to be user-friendly for all audiences 2) there are standards that keep sites accountable to people with disabilities and 3) well-designed sites don't require changes to make the accessible.

Improving the site for color-blind individuals has an effect on other populations as well. Those with color-blindness are not the only visually impaired users and adding all visually impaired greatly increases this population. The growing senior population often has the same difficulties with visual impairments (e.g., differentiating text and site elements).