

# Tips for Making Print More Readable

[www.VisionAware.org](http://www.VisionAware.org)

## **Low vision can make reading a difficult task in the following situations:**

- When a reduced amount of light can enter the eye
- When lighting is dim or not positioned correctly
- When the image on the retina is blurred
- When the central portion of the retina (the macula) needed for reading is affected

Contrast of the print on its background is affected by reduced light and blurring. Damage to the central retina interferes with the ability to see small print and to make necessary eye movements involved in reading. The following guidelines make print more legible for individuals with vision problems and for the general public as well. Therefore, they are important for universal design.

## **Print Size**

Large print type should be used, preferably 18 point, but at a minimum 16 point. Scalable fonts on the computer make this easy to do. When possible, ask the person who will be reading a print document what size print works best.

## **Font Type and Style**

The goal in font selection is to use easily recognizable characters. Standard Roman or Sans Serif fonts such as Arial or APhont work best (available online through [www.aph.org](http://www.aph.org)). Mono-spaced fonts such as Courier are also helpful for reading with certain eye conditions. Here are some tips:

- Avoid decorative fonts
- Use bold type because the thickness of the letters makes the print more legible
- Avoid using italics or all capital letters. Both these forms of print make it more difficult to differentiate among letters
- Limit the use of graphics with print

## **Contrast**

Contrast is critical to enhancing visual functioning for reading print as it is in environmental design. Print text with the best possible contrast. Light lettering, such as white or light yellow, on a dark background may be easier to read than black lettering on a white or light yellow background. To enhance print contrast use a black underlay or a yellow acrylic overlay. Also, the use of a typoscope can aid the reader in following lines of printed material.



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## **Use of Color**

The use of different colored lettering for headings and emphasis is difficult to read for many people with low vision. Dark blues and greens are the most effective color to use for emphasis.

## **Paper Quality**

Avoid using glossy finish paper such as that typically used in magazines and advertising brochures. Glossy pages create excess glare which makes it more difficult for people with low vision to read.

## **Leading (space between lines of text)**

The recommended spacing between lines of text is 1.5, rather than single space. Many people who are visually impaired have difficulty finding the beginning of the next line when single spacing is used.

## **Tracking Spacing Between Letters**

Text with letters very close together can make reading difficult, particularly for those with central visual field defects, such as persons with macular degeneration. Spacing between letters should be wide — for example, a mono-spaced font such as Courier, which allocates an equal amount of space for each letter, is very readable.

## **Margins**

Many low vision devices, such as stand magnifiers and video magnification systems, are easiest to use on a flat surface. An extra-wide binding margin makes it easier to hold the material flat. A minimum of one inch should be used; one and a half inches is preferable.

## **Lighting**

Good, directed task lighting can greatly enhance the ability to read. The rule of thumb is to position the light as close as possible to the material the individual is reading. To find out more about lighting and products that can make reading easier for people with low vision, visit [www.visionaware.org](http://www.visionaware.org).

