ENvironMental MODifications

Making life easier for people with low vision

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There are many things you can suggest that
will help people with low vision make the
most of their vision, whether they are able to
benefit from magnification devices or not.

If you are working at the community or
at primary level, remember that these
environmental modifications should never
be a substitute for referral: always refer
someone with low vision for an eye exami-
nation, refraction and low vision services
wherever possible. If you are working at
district/secondary or tertiary level, refer your
patient for vision rehabilitation.

The suggestions given here are a good
starting point, but some people may
require further support and training in
order to make the most of their vision.

A way of remembering environmental
modifications is to think about:
• Making things bigger and bolder
• Using colour and contrast
• Improving lighting, using lines, and
trusting what you want to look at.

Bigger and bolder
Bringing things closer to our eyes makes
them appear bigger. This mainly helps
young people and children who have very
good accommodation.

People (including children) who have
had cataract surgery and those with
presbyopia will need a near add (a plus
lens) to bring things into focus if they
bring them nearer.

Use charcoal or a felt pen to write
bolder messages, and write with larger
letters than usual (Figure 1). Keep it short
and simple! Put it somewhere visible and
write on a bright piece of paper if you want to
attract the person’s attention.

Enlarging photocopiers and computer
screens are also ways that print and
other images can be made bigger and
hence easier for the person with low
vision to see.

Colour and contrast
Colour can be used in many ways to help
someone in their home. For example:
• Use brightly coloured plates (Figure 2)
• Put red tape around light switches
• Use paint or red nail varnish to put spots
of red to help the person line up the
“off” buttons on the gas cooker
• Stand the person’s shoes on a brightly
coloured mat to distinguish them from
other family members’ shoes
• Mark the bottle of medication that is to
be taken in the morning with a big
yellow circle (to represent sunrise) and
the evening bottle with a big black circle
(to represent night).

Contrast makes things easier to see. For
example, a black pen on white paper is
easier to read than pencil. White writing
on a black background gives the greatest
contrast and hence is easier to read, but
this can usually only be generated on a
computer screen (Figure 3).

Lighting, lines, and lift
Lighting is perhaps the best way to
improve contrast, so if someone wants to
read make sure the page is well lit.
Ideally, the light should shine directly onto
the page, but without producing glare. It
should not shine in their eyes. Good
lighting in darker areas of the home is
important, particularly where the person
may be nervous, e.g., going up and down
stairs or going to an outside latrine.

Figure 1. Bigger and bolder (right)

Figure 2. Using contrasting colours to improve visibility

With normal vision, the rice is visible against all backgrounds. With low vision (right),
the rice is much easier to see on the green banana leaf and red plate

Figure 3. The effect of contrast on the legibility of text

Poor contrast

Once upon a time there was a man who lived at the top of a long, steep track

Good contrast

Once upon a time there was a man who lived at the top of a long, steep track

Best contrast

Once upon a time there was a man who lived at the top of a long, steep track

At meal times, people with low vision
can sit near the window or doorway so
they can see what they are eating and
when they have finished.

Lines. Many people with low vision find it
hard to follow a row of text: they may not
be able to scan the words easily, they
may find it hard to know when they have
got to the end of a row of text, or they
may struggle to find the beginning of the
next line. Partly blanking out the lines
above and below the line being read, for
example, using a reading slit (see page 10),
makes the visible line of print easier to
read. A reading slit can be made of black
card with a rectangle cut out of it.

Lines can help with mobility and
safety. For example, paint the edge of
stairs in a contrasting colour, or put white
paint on the top of stones which mark the
path to a neighbour’s home.

Lift. Figure 4 shows a locally made,
foldable reading stand, lifts the page
closer to the eyes and makes reading less
tiring, particularly if magnifiers are used.

Figure 4. Reading stand with angled lamp

Small writing (left) is not as easy to read
as big, bold writing. Shorter is better.

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