N·Z·A·O

Good light helps your vision

Eyes need light
Eyes adapt to different levels of light very well. From the brightest light on a sunny day to the extremely low levels of light at night, we can still see. This pamphlet provides information about glare, the correct positioning of lights and the impact of poor lighting on your vision.

Does vision change with age?
Yes. As we grow older, our eyes become less efficient. Spectacles can correct most vision changes, but sometimes this is not enough. You may need to adjust your lighting to increase the intensity of light. For example, a person aged sixty requires twice the illumination of a person aged twenty when carrying out the same task.

How does glare affect vision?
It's simple - glare makes vision unpleasant. Glare occurs when light from an unwanted direction affects the eye. Reducing glare is very important, not only to ensure clearer vision but also for comfort.

How do I minimise glare?
Careful planning of your light positioning is important to minimise glare. For example, sit in a place where you spend time and often use light. If you can see a source of light within your field of vision, you have a direct glare problem. Change the position of your lights, the chair you sit in, desk you sit at or pull curtains to remove the glare.

Indirect glare is more subtle, and causes rapid eye and vision fatigue. To check for indirect glare, place a mirror on your desk, bench, work surface or against the screen of a computer. If a light source can be seen in the mirror, you need to adjust your lighting. We suggest you change the position of your lights (or your work) to remove the glare. If you follow these steps, your vision will be more comfortable.

Correct light positioning is easy
The illustration shows the correct position for a light source at a desk – just above and behind the head. This allows light to shine over the left shoulder for a right handed person, and over the right shoulder for a left handed person. You should also light the room with a second lamp. This will reduce the contrast in lighting when you look up. The same lighting pattern applies for any other work or hobby area.

Light for reading, TV and hobbies
Often, one or two light fittings will not provide adequate lighting. Similarly, many wall lights are too small or badly positioned to provide the right light for a person

seated, concentrating on close work or reading. Decorative lamps may provide background light, but to carry out specific tasks such as reading or sewing, special local lighting is desirable. We suggest never putting a lamp on top of a television; the lamp is a direct source of glare. Instead, place a moderate source of light beside or behind you.

Lighting around the house

Around your house, background lighting from spotlights can provide a pleasant visual environment. Dimmers can be useful and great for mood lighting, allowing you to create the level of lighting you want.

In a dining room, a light fitting hanging from the ceiling directly above the table is ideal. With a dimmer, the light level can be lowered to create a dinner party atmosphere or increased to a bright light for reading.

Inadequate bedroom lighting is a common problem. For reading in bed, a lamp must be bright enough to give plenty of light but without glare or shadows. Many bedside lamps have shades which look attractive but reduce light output. We suggest that you choose practical lights for bedtime reading.

Fluorescent lighting

Fluorescent lamps are associated with many visual problems but they do not damage eyes. Two aspects of fluorescent lamps require attention – the quality and quantity of light.

Quantity of light: As fluorescent tubes age, light levels drop and flickering occurs. Research demonstrates that flickering is linked to fatigue and headaches in many people. We recommend tubes be replaced when the ends begin to blacken. In addition, make sure the fittings are cleaned regularly.

Quality of light: This is governed by the position of the light relative to the task. As with other forms of lighting, fluorescent lights can contribute to direct and indirect glare. Office desks, or the lights themselves may need to be moved until the light does not reflect into your eyes.

Personal computer lighting

We recommend you plan your workspace carefully ensuring the correct positioning of lights, your computer and your desk. This is particularly important if you are using your computer for long periods of time. If not set up correctly, lighting related eyestrain or headaches can occur. Make sure there are no reflections on the computer screen, and there is no glare from a window behind the screen.

Poor lighting can cause problems

Inadequate lighting has serious and wide reaching consequences. These include eye fatigue, headaches, reduced concentration, irritability, nervous tension and for older people, difficulty seeing print when reading. Many home accidents are caused by

inadequate lighting. Because of this, it is crucial correct lighting needs are met. Your optometrist will be able to provide information for you if you have any queries on house lighting.

We suggest that you:

- have a critical look at your lighting - make sure glare and gloom are avoided
- do not stand in your own light at the sink, ironing board, or workbench. Place light fittings **over** all work surfaces in the kitchen, office or workplace
- when redecorating, paint or paper walls and ceilings in light colours to reflect light, and in an older home arrange for your electrician to install extra lights
- clean your light fittings regularly, and replace old lamps **before** they burn out. These old lamps can be used in less critical areas
- when concentrating for a long time, take an occasional rest from your task, and relax your eyes by looking away for a few seconds

It is very important you have correct lighting, whatever you are doing. As we get older, our eyes do not work as well as a younger eye. Because of this, older people need to take particular care to ensure lighting is correct. But don't worry if you're not sure how to do this: your optometrist can provide professional advice for your lighting needs

Your optometrist provides you and your family with total vision care.
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