Lighting Ergonomics

How to Improve Your Lighting Environment at Work

Proper lighting, without glare or shadows, can prevent workplace incidents, enhance productivity, and have a positive impact on health and well-being.

Common lighting problems include:

- insufficient lighting
- improper light contrast
- poor light distribution
- glare and flicker

Symptoms of poor lighting include difficulty seeing, eye discomfort/strain, and headaches.

Some individuals may have a condition known as "light sensitivity" whereby the person experiences discomfort or pain from exposure to ordinary light sources. Light sensitivity can be triggered by any type of light source, including LEDs, fluorescent, and even natural light.

Contemporary Loft Office
Photo by Victor Zastol'skiy (Adobe Stock)

Factors that may contribute to this condition include brightness, flickering, and colour (wavelength) of the light. If you think you have light sensitivity, consider seeing a healthcare professional and/or contact Health and Well-Being to discuss the possibility of a workplace accommodation.

1 Lighting Levels (illumination)

Ensure lighting is sufficient for the type of task, work environment, work surface, and individual requirements. Maintain uniform lighting levels throughout the space to minimize shadow areas or excessive light contrast. Replace burnt or old light bulbs and clean light fixtures regularly.

2 Task Lighting

Use task lighting to increase light levels over the work and immediate surroundings to your personal preference. Choose task lights that can be adjustable for both brightness and position.

3 Workstation Layout

Where possible, orient workstations at right angles to exterior windows to minimize solar glare. Position workstations between rows of overhead lights rather than directly below.

4 Window Shading

Although daylight is desirable in the workplace, if necessary, use manual/automatic window shading to prevent solar glare.

5 Computer Monitors

Adjust the brightness and contrast on computer screens according to your personal preference. Change the angle/tilt of monitors to reduce glare from overhead fixtures. Take visual breaks every few minutes to reduce eye strain.

6 Surfaces

Light reflecting off polished, shiny, or glossy surfaces can cause reflected glare. Where possible, choose matte finishes for furniture and wall/floor surfaces to minimize reflection glare.

7 Light Fixtures

Poorly positioned light fixtures, bare light bulbs, or sunlight can cause direct glare. Ensure light fixtures have appropriate shielding (diffusers/covers, lenses, louvers).

Use several small low intensity light fixtures instead of one large high-intensity light fixture to reduce direct glare and provide even light distribution.

8 Flicker

Flicker can occur due to lamp source, age of lamp, electrical malfunctions, lamp/ballast incompatibility, or improper operating environment. If you observe flicker, notify your supervisor and/or property manager to review.

9 Blue Light

Avoid exposure to blue light during night-time if possible Adjust the settings of backlit electronic devices and apps to reduce blue light from screens. There is inconclusive evidence that blue light blocking screens or glasses are effective and therefore not a required item for computer work.

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Please contact your supervisor and/or Property Manager to review lighting issues in your workplace. You may also contact the EHS office if you have any questions.

https://ehs.utoronto.ca/our-services/occupational-hygiene-safety/ergonomics/