

## Three Ways Good Lighting Can Help Seniors Live Better

Well designed lighting plays an important role in creating a supportive environment for older adults. Lighting impacts their quality of life, health, and safety. It's important that homes and public buildings such as hospitals and care facilities have lights that cater to the needs of seniors.

There are three important ways in which the right lighting can help seniors:

1. **Safety and fall prevention:** With age, there are natural changes to vision and most seniors experience a loss of vision to some degree. Elderly adults often suffer from eye problems such as cataract, glaucoma, and yellowing of the lens. There are also changes in their balance and postural stability which make them susceptible to fall. A bad fall can cause an individual to lose confidence and limit her own activities as a preventive measure.

For these reasons, it is very important to design lighting that will aid vision and minimize the risk of falling. Rooms, corridors, and stairwells should all be adequately illuminated for seniors. Lighting should be free from glares so as not to cause distraction or temporarily blindness. Motion detecting lights are useful, especially for night lamps. These prevent stumbling when the individual wakes up at night and moves in dim lighting. There are night-lighting systems that illuminate doorframes and pathways, providing horizontal and vertical cues for better orientation. With some of these measures in place, senior can see their surroundings better and move around safely.

2. **Improved sleep quality:** An individual's sleep patterns are regulated by internal clocks called circadian rhythms. Exposure to light affects these circadian rhythms and sleep cycles. Circadian rhythms are naturally tuned to respond to sunrises and sunsets. The body judges the type of light to determine whether to release serotonin, an energizing hormone, or melatonin, a sleep-inducing one. Seniors who are mostly homebound don't get light exposure outside. Exposure to low-level light at all times upsets their circadian rhythms and sleep cycles. This leads to disrupted sleep and puts them at high risk for a number of ailments. At many assisted living facilities, unvarying light throughout the day causes sleep impairment among residents.

Smart lighting systems with bulbs that change color to match the circadian rhythms help to improve sleep quality. Seniors using such systems have reported that they sleep better and feel happier. The lights automatically change from cool bluish-white to warm amber around sunset. Motion sensors are of great help as seniors don't need to remember to switch on a light or search for the switch. When they walk into a room, the light switches on, when they leave, it goes off. In these ways, smart lighting systems can enhance the wellness and happiness of seniors.

3. **Enhanced quality of life:** Fading eyesight limits the activities that senior citizens can enjoy. They may find it difficult to read or work or enjoy their hobbies due to poor vision. Aging

eyes may also find it difficult to distinguish between colors. As their lenses have yellowed with age, it becomes difficult to tell the difference between greens, blues, and violets.

Providing additional, reflected light can help seniors to work and enjoy a range of activities. They can also perform important activities such as taking their own medication more easily. This extra lighting can be provided in the form of table lamps, under-cabinet lighting, and lights over work areas. Whiter lights are helpful for color distinction. Lighting systems need to be designed to ensure there is adequate ambient light, as well as additional lights without glare.

Lighting designers can enhance the overall quality of life for senior citizens to a great extent by providing them with lighting suited to their needs. It's important for seniors themselves to be aware of how good lighting can help them. Families and caregivers should also examine whether current lighting is suitable and plan improvements. At hospitals or care facilities, properly designed lighting is an important aspect of improving care for all residents.