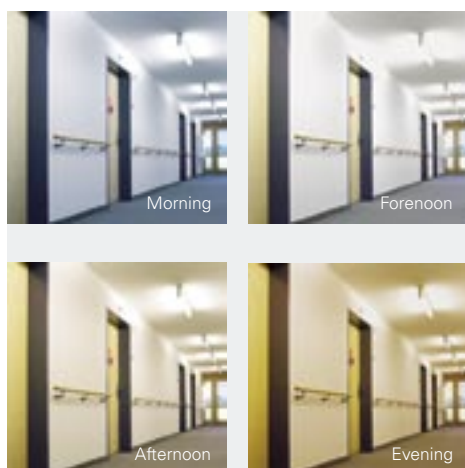




## EFFECTS OF AGE-RELATED HEALTH ISSUES

### ISSUE: THE DISRUPTION OF THE CIRCADIAN RHYTHM

The circadian rhythm helps the human body adjust to the patterns of daily processes. It controls everyday human physiological processes like metabolism and hormone production and the awake/sleep cycle with remarkable accuracy. Light acts as the body's "timer" in the process. If natural light is not available to regulate our inner clock, then a lighting solution that provides an adequate substitute for natural daylight is required.

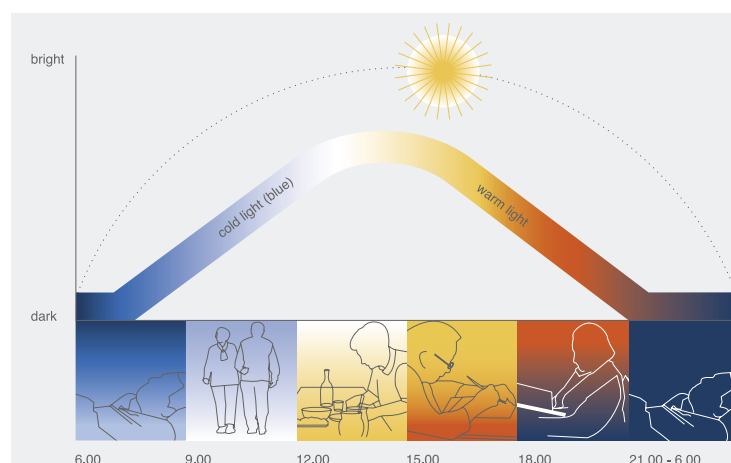


#### The disruption of the circadian rhythm

Patients with dementia have difficulties with spatiotemporal orientation. This leads to implications of inactivity, confusion and depression.

"Visual Timing Light", the innovative light management system from Derungs Licht AG uses artificial light to simulate the twenty-four hour cycle, from sunrise to sundown and night-time.

- Twenty-four hour cycle of light to organize daily course of activity
- Positively affects the day / night cycle
- Helps balance hormone production
- Regular sleeping and eating habits
- Positively affects mood and sense of well-being; invigorates the senses
- Compensates for mood fluctuations and depressions
- Enhances overall performance
- Significantly improves articulation of patients with dementia



A sophisticated light control system is used to define the different light effects from morning until night. As the time of the day progresses, this lighting system features a different illumination level and light temperature. The control system repeats the different light effects over a twenty-four hour period. As each hour passes, corresponding color temperature and brightness is automatically simulated. "Visual Timing Light" has become an indispensable way to assist circadian rhythm health concerns.