TIPS FOR USING LIGHT TO IMPROVE OUR SLEEP AND ALERTNESS

Our eyes and brain are designed to respond to changes in the brightness of the sun throughout the day and seasons. The pattern of light to which we are exposed to over a 24 hour period keeps our body's internal clock aligned with our external environment. We are most sensitive to blue light because the intensity of blue light changes the most as the sun moves in the sky (with little blue light at sunrise/sunset, lots of blue light at noon). Unfortunately, modern technology and room lighting is enriched for blue light. We also spend increasingly long amounts of time inside during the day, removed from natural sunlight. Our lack of exposure to bright light/sunlight during the day and high levels of exposure to blue wavelengths of light in the evening and night is confusing to our brains and can result in delayed bedtimes, insomnia, difficulty waking and fatigue.

Try to mimic nature by getting exposure to bright, blue enriched light during the day, preferably several times during the day, and only dim, red-orange tint light at night. Consider implementing the following strategies (be sure to wear sun protection where appropriate):

1. Try to get exposure to sunlight or very bright light (such as from a 10,000 lux lightbox) for at least 15-30 minutes, within 15 minutes of waking up. Try going for a morning walk or having breakfast outside, even if the morning light is still relatively dim.

2. Consider increasing your level of light exposure during the day by working near a window or installing blue-enriched, bright artificial lights (bright CFL lighting or LED lighting can work well). If you work in a windowless office you might consider purchasing a "10,000 lux" lightbox and have it running during the day until mid-afternoon.

3. Add additional sunlight exposure during the day by eating lunch outside and/or going for a brief walk around the block whenever possible.

4. Avoid exposure to bright lights (including from room lighting, computers, smartphones, TV) for at least 2 hours before bedtime. Use a dimmer switch or a standing lamp with a 20 watt or less bulb (based on traditional incandescent wattage). Make sure the lights have an orange-red tint (such as an incandescent light bulb), rather than a white-blue tint (CFL or white LED bulbs). You can use an additional book light if needed, again ensure it has a yellow-red tint bulb ("amber light") rather than a white-blue tint bulb. There are several vendors who make "amber" reading lights and room lights, you can find them on amazon or through google. You can also buy special glasses ("blue blocking glasses") to filter out the blue wavelengths of light.

5. Turn the brightness setting all the way down on all electronic devices including your computer, smartphone, TV, for at least 2 hours before bedtime and download an app to give the screen a reddish tint. (Enable "NightShift" on your iPhone, try "cinema mode" on your TV settings, download "F.LUX" app for your computer, "TWILIGHT" app for android devices. Ask google how to dim/redden any technology if you cannot figure out how to do so.)

6. Do not check your email/facebook/text messages/computer, etc during the middle of the night or right before bed. Keep your smartphone OUT of the bedroom if possible, or consider using a "do not disturb mode". Looking at your phone's bright screen will not only confuse your body's internal clock but will also temporarily increase your level of alertness and keep you awake for longer than if you hadn't looked at the screen. If you need to know what time it is during the night, consider buying an old fashioned digital bedside alarm clock with red numbers.