# Electronic Gadgets and Insomnia

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***Key points:***

- Introduction
- Mechanism Linking Technology Use to Insomnia
- Empirical Evidence
- Interventions and Recommendations

**Abstract**

The proliferation of electronic gadgets has transformed our modern life offering convenience in daily life. However, their frequent use, particularly before bedtime, has been a source of sleep disorder. The paper examines the mechanisms by which electronic gadgets affect sleep, reviews empirical evidence linking gadget use to sleep disorders and proposed strategies to mitigate adverse effects.

**Introduction:**

Sleep is essential to development, mental and physical health, especially in young people to whom adequate sleep is crucial for health, learning and wellbeing. However, frequent usage of electronic gadgets is the main source of insomnia (sleep disorder). Insomnia is defined as a sleep disorder where one may face trouble sleeping leading to sleepiness at day time, irritability with low energy and depressed mood. Insomnia affects a major portion of the world population. The screens of electronic gadgets such as smartphones, computers, tablets, and televisions can emit blue light which disrupts our natural sleep cycles. Studies have shown that decreasing exposure to blue light is an important way to help your body naturally prepare for sleep, affecting positively quality rest. Understanding the relationship between technology usage and insomnia (sleep disorder) is important for developing effective interventions.

**Mechanisms Linking Technology Use to Insomnia**

**Blue Light Emission**

Blue light can suppress melatonin production, a hormone that regulates sleep wake cycles. This suppression can delay sleep onset and disrupt circadian rhythms.[1] Studies have shown that decreasing exposure to blue light is an important way to help your body naturally prepare for sleep affecting positively quality rest.

**Physiological and Cognitive Issues**

Using digital content before bed can increase physiological and cognitive issues, making it harder to fall asleep. Activities like checking emails, playing video games, and browsing social media like Facebook, can heighten alertness and delay sleep onset.

**Sleep Environment Disruptions**

Electronic gadgets can lead to disturbances from notifications or the temptation to use devices during

the night, negatively impacting sleep quality. The presence of devices in the bedroom has been associated with difficulties in falling and maintaining sleep.

**Empirical Evidence**

A study found that 71.8% of individuals with sleep disorders reported using electronic gadgets before bed each night. Watching TV was most common activities (70.2%) followed by checking social media (59.4%), checking emails (31.8%) and playing video games (32.9%).[2] Another US study has found that people who live in areas with more outdoor nighttime lighting (e.g. city areas) are more likely to report issues with sleep — like reduced sleep hours, waking up confused at night, and feeling fatigued in the day.[3]

Additionally, research indicates that the problematic technology use is associated with poor sleep quality in young adults. Digital technology use has been linked the shorter sleep duration and later bedtimes among adolescents and young adults.[4]

**Interventions / Recommendations**

The following are intervention/ recommendation**:**

· Establish a Screen Curfew: Avoid using electronic devices at least an hour before bed-time to allow melatonin levels to rise naturally.[5]

· Create a Tech-Free Bedroom: Remove gadgets from the sleeping area to minimize disturbances and strengthen the association between the bedroom and sleep.

· Use Blue Light Filters: If device use is necessary at night, enable blue light filtering features or use apps designed to reduce blue light emission .[6]

· Maintain a Consistent Sleep Routine: Go to bed and wake up at the same time daily to regulate your body's internal clock.

**Conclusion**

It has been observed that technology use and insomnia is multifaceted, involving many factors like physiological, cognitive, and environmental etc. By understanding these mechanisms and implementing targeted interventions, one can improve sleep quality and reduce the risk of insomnia associated with electronic gadgets.

Furthermore, future research should continue to explore this dynamic relationship, considering the rapid evolution of technology and its integration into daily life

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