

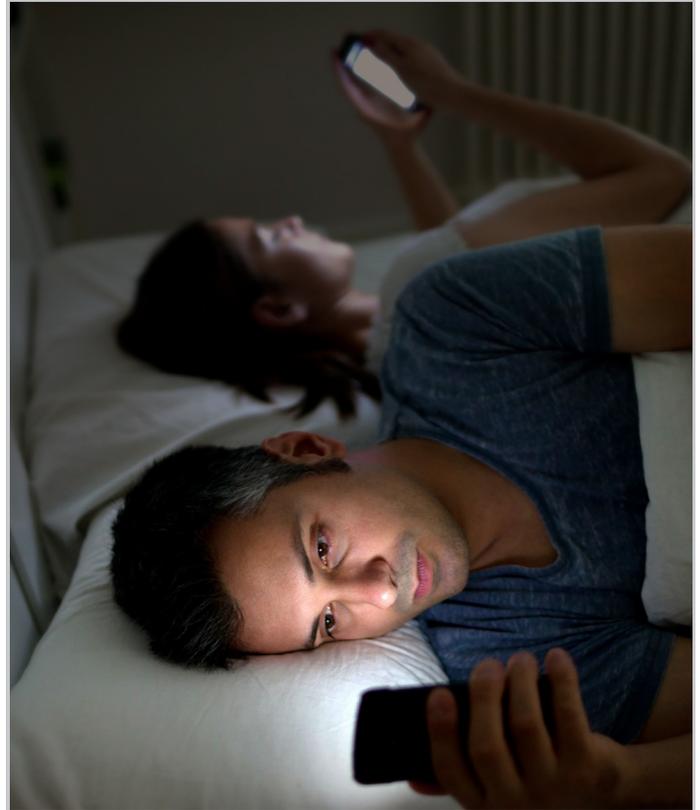
## EFFECTS OF TECHNOLOGY ON SLEEP

### **i** Quick Facts:

It is important to be aware of the negative effects that technology can have on your sleep. Watching TV or movies and playing video games at night can cause you to delay your bedtime. The bright light emitted by screens can increase your alertness and make it harder to fall asleep. Wearable and bedside sleep trackers also may increase sleep-related anxiety.

### KEY POINTS:

- **The American Academy of Sleep Medicine recommends adults should sleep 7 or more hours per night, and teens should sleep 8 to 10 hours nightly.**
- **Insufficient sleep in teens and adults can lead to serious health problems.**
- **Using electronic devices at night has been linked to delayed bedtime, shorter sleep duration, poor sleep quality, and daytime sleepiness.**
- **Frequent awakenings from phone notifications can lead to daytime sleepiness and drowsy driving, especially in teens and young adults.**
- **Sleep experts encourage you to shut off all electronic devices before bedtime.**



### **?** How Can I Learn More?

- Talk to your board-certified sleep medicine physician.
- Visit [www.sleepeducation.org](http://www.sleepeducation.org)

### **!** Am I At Risk:

People who use technology at bedtime and through the night may have trouble falling asleep, staying asleep, and getting enough quality sleep to feel refreshed. Poor sleep and daytime sleepiness from excessive use of electronic devices at night is common in teens and young adults. Relying on caffeine to stay awake during the day is one warning sign that electronic devices may be having a negative effect on your sleep.

### GENERAL OVERVIEW:

The increased use of electronic devices at home is making it harder to get healthy sleep. For decades the TV, computer and video game system have competed for our time and attention at night. Now we also have smartphones, tablets and e-readers that tempt us to stay up later at night.

Using electronic devices before bedtime can have harmful effects on your sleep and health. Studies show that using technology at night can:

- Increase the time it takes to fall asleep
- Reduce the duration of your sleep
- Cause you to wake up more frequently during the night

The bright light emitted by the screens of many electronic devices also can disrupt your sleep. This light can be especially intense when a device such as a tablet or smartphone is held close to your eyes. Light is a powerful timing cue that helps your body regulate your sleep-wake pattern.

Bright light exposure can make you more alert. It also can delay the production of melatonin. This is a hormone that tells the brain that it's time for sleep. This delay can shift your sleep pattern, making it harder for you to fall asleep or stay asleep. Sleep experts discourage "screen time" too close to bedtime because of this bright light exposure.

Today many people also use a wearable sleep tracker or bedside device to monitor their sleep. These devices can make some people more anxious about their sleep duration or sleep quality. Constantly checking a sleep

tracker can make it harder to sleep well. Sleep trackers may not provide an accurate sleep report. They also give you little guidance on how you should interpret your sleep data.

#### TIPS:

- Turn off all electronic devices at least a half-hour before bedtime.
- Keep the TV and other electronic devices out of your bedroom.
- Charge portable devices outside of the bedroom at night.
- Use one of the apps for your computer, tablet and smartphone that filters blue light after sunset.
- Parents should set a technology curfew for children and teens so that they avoid exposure to devices or screens for 1 hour before bedtime.

#### ➔ Next Steps:

- Make it a priority to sleep 7 or more hours nightly, or 8 to 10 hours if you are a teen.
- Talk to your doctor about any ongoing sleep problems.
- Limit your use of electronic devices at night.
- Your doctor may refer you to an accredited sleep center for help.

#### Questions For Your Physician



Take a few minutes to write your questions for the next time you see your healthcare provider.

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#### Sample Questions:



Why do I feel tired all the time?

Why do I wake up so early in the morning?



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