

## Overview:

**Prevalence.** “Faculty and residents must be educated to recognize the signs of fatigue and adopt and apply policies to prevent and counteract its potential negative effects.” (ACGME Common Program Requirements VI.A.3). So much to learn. So much to do. As one resident explained, “It’s like trying to take a drink from a fire hydrant.” One could easily drown in all there is to do and learn. Sleep remains difficult to get enough of in residency. In a survey at a US medical centre in 2007, 21% of residents (n=43) reported getting 5 or fewer hours of sleep in the previous week and 62% reported getting 6 or fewer hours. This compares with surveys elsewhere indicating 20% of residents get 5 or less hours and 66% get 6 or less hours (Baldwin and Daughterty, 2004). Similar numbers were noted in a study in Japan (Nakamura, Kitahara and Nishiyama, 2005).

**Impact.** The L.I.F.E. Curriculum (Learning to Address Impairment and Fatigue To Enhance Patient Safety, [www.lifecurriculum.info](http://www.lifecurriculum.info) ) notes that “people on average require approximately 8 hours of sleep every 24 hours to satisfy their physiological needs. When people get less than 5 hours of sleep over a 24 hour period, their peak mental performance usually deteriorates.” (LIFE Teachers Guide, page 15). Numerous studies have revealed the impact of sleep deprivation on residents. These include: increased errors in simulated surgeries; increased errors in ECG interpretation; increased time to complete a variety of medical procedures; less thorough examinations and documentation; increased risk of motor vehicle accidents and ‘near misses’ post call.

**Self-Assessment.** Beware! Two large obstacles exist to recognizing your own sleep deprivation. First, is the “I can handle it. I’m good on little sleep” myth. This myth is a common one among residents and is fuelled by an implicit physician’s code that a ‘real Doctor’ works through fatigue and doesn’t complain. Youthful sense of invincibility may intensify this. Second, the very nature of sleep deprivation makes it more difficult to notice when you are very sleepy.

## Warning signs for excessive sleepiness:

1. Complete the Epworth Sleepiness Scale and see how you’re doing: [Epworth Sleepiness Scale](#)
2. Residency specific warning signs (adapted from LIFE)
  - Sedentary nodding off (e.g. during conferences) or driving
  - Micro-sleeps (5-10 seconds) that cause lapses in attention
  - Difficulty focusing on tasks
  - Repeatedly checking your work

- Irritability
- Decreased affective range, flattened affect
- Difficulty with problem-solving
- Reduced ability to multi-task
- Increased forgetting

## Intervention:

- Sleep. Make yourself sleep post call.
- Nap. A 15-20 minute nap in the afternoon or during a night shift. Sleep prophylactically before and after night shifts.
- Use caffeine carefully, prn related to alertness and not socially or for prolonged periods. Do not use caffeine before your shift ends.
- Make your sleeping space conducive to sleep. Reduce light, noise, air temperature.

## Additional Information:

- [Sleep Hygiene Tips](#)

## References:

- Baldwin. DC Jr, Daughterty SR. Sleep deprivation and fatigue in residency training: results of a national survey of first-and second-year residents. *Sleep* 2004; 27:217-223.
- [LIFE Curriculum](#)
- [Tips for Surviving Residency by PAIRO](#)
- Taoda K, Nakamura K, Nishiyama K. Sleep Survey of medical residents at a National University Hospital, *Sangyo Eisegaku Zasshi* 2005 Nov 47(6):246-53.