Fatigue and lack of sleep can impair a physician’s attention, judgment, and reaction time; in turn, impairment in these areas can compromise patient safety and lead to medical errors.

- Even moderate levels of fatigue produce higher levels of impairment than proscribed blood levels of alcohol intoxication.
  

**Impairment occurs across all specialties, including surgery, medicine, pediatrics, and anesthesiology.**

- Surgery: 20 percent more errors and 14 percent more time to perform simulated laparoscopic procedures
  


- Medicine: ECG interpretation impaired
  

- Pediatrics: increase in time required to place an arterial catheter and to intubate
  
  Storer JS, Floyd HH, Gill WL, Giusti CW, Ginsberg H. Effects of sleep deprivation on cognitive ability and skills of pediatrics residents. *Acad Med* 1989;64:29–32

- Emergency Medicine: decreased reduction in comprehensiveness of physical assessment and documentation; reported toll on cognition, family life, and personal and professional relationships
  

• Family Medicine: in-service training exam scores correlated with pre-test sleep amounts  
  Jacques CH, Lynch JC, Samkoff JS. The effects of sleep loss on cognitive performance of resident physicians.  

• Anesthesiology: residents reported sleeping an average of 6.5 hours/day; 20 percent indicated sleepiness prevented them from performing clinical duties; 12 percent attributed errors to fatigue  
  Howard SK, Healzer JM, Gaba DM. Sleep and work schedules of anesthesia residents: a national survey.  
  *Anesthesiology* 1997; 87: 932A.  
  Denisco RA, Drummond JN, Gravenstein JS. The effect of fatigue on the performance of a simulated anesthetic monitoring task.  
  Taffinder NJ, McManus IC, Guy Y, Russell RC, Darzi A. Effect of sleep deprivation on surgeon’s dexterity on laparoscopy simulator.  
  *Anesthesiology* 1998;89:1236A.