

In the fatigue management context, what is meant by working “long hours”?

In the fatigue management context, working “long hours” refers to working shifts that extend beyond a standard 8-hour day or 40-hour work week. Working long hours includes working holdover, scheduled, or unscheduled overtime or working AWS shifts extending beyond eight hours. Whether it's for operational demands or schedule preference, working long hours affects fatigue, which, in turn, impacts performance and alertness.

What is the connection between fatigue and working long hours?

Working long hours adversely impacts two primary contributors to fatigue: time awake and time asleep.

- Working long hours increases continuous time awake.

The length of time you are awake is a direct contributor to fatigue. The longer you stay awake, the greater your fatigue level and the greater the impact on performance. The effects of fatigue on mental performance closely resemble the effects of alcohol on mental performance, particularly in regard to the unpredictability of performance levels. Research shows that after approximately 17-18 continuous hours awake, you will experience periods of mental performance that resemble the mental performance degradation of having a blood alcohol concentration (BAC) of .05%.

- Working long hours reduces the time available to sleep.

Reduced time asleep is another direct contributor to fatigue. Working long hours reduces your time available to sleep, intruding on rest opportunities. When work shifts are extended beyond a standard 8-hour day, you tend to sleep less in order to “do life” (e.g., chores, shopping, social time, family commitments). Research shows that getting as little as two hours less sleep than your daily 7-9 hour sleep need may decrease cognitive performance. After several days of getting less than your daily sleep need, you accumulate a sleep debt that can only be repaid by getting extra sleep.

Does working long hours affect performance and alertness?

Yes. The combination of extending your time awake and reducing your time asleep will decrease your alertness and performance levels and increase safety risk. Even shifts greater than eight hours are associated with elevated safety risk, independent of the existence of breaks or sleep deprivation.

So...what actions help maximize my alertness and performance when I work long hours?

At home

- Establish good sleep habits by optimizing your sleep environment to be quiet, cool, and dark.
- As your work week begins, evaluate your schedule and consider how to plan sleep around shifts and personal obligations.
- Sleep as much as possible when it is dark outside; your body clock is programmed for nighttime sleep and daytime alertness.
- Take advantage of longer recovery sleep opportunities when you can, to repay your sleep debt.
- If called in to work overtime, consider how you can plan recovery sleep after your shift.
- Communicate with your family or roommates about how important it is for you to get restorative sleep; set ground rules.



Fatigue and Shiftwork: Working Long Hours

At work

- If you feel sleepy, take a brief activity or social break.
- Use caffeine strategically---only when you really need it.
- If you have to work holdover overtime, think about how you can reprioritize your off-duty to-do list in order to prioritize catching up on sleep. Can something wait?

Myth: If I really focus, I can overcome my fatigue when I am working long hours.

Fact: It is impossible to overcome fatigue by will power alone. The antidote to fatigue is s-l-e-e-p! It sounds simple, but planning and getting your needed sleep is a complex challenge when working shiftwork and long hours. Take proactive actions to maximize your sleep by making sleep a priority and implementing fatigue countermeasures, particularly if you work beyond eight hours. Be honest with yourself when evaluating your fatigue level and use self-declaration of fatigue as a safety relief valve if needed.

