

In the fatigue management context, what is considered a long commute?

A long commute is more than being stuck in traffic on I-5 in Southern California. In the fatigue management context, off-duty travel time to and from work, which results in being awake beyond approximately 17 to 18 hours, may be considered a long commute. Alertness and performance are adversely impacted by fatigue; long commutes increase the likelihood of the primary contributors to fatigue.

What's the connection between long commutes and fatigue?

Fatigue impacts alertness and performance, which may impact road safety on your commute and operational safety on the job. Long commutes can be linked to the three primary contributors of fatigue: time awake, time asleep, and circadian rhythm.

- **Time Awake and Long Commutes** – Extended time awake directly contributes to fatigue. For most people, after about 17 to 18 continuous hours awake, the mental impact of fatigue closely resembles the mental degradation of someone with a .05 blood alcohol concentration. Long commutes added to the front and back of a shift increase the number of continuous hours awake.
- **Time Asleep and Long Commutes** – Reduced quality and quantity of sleep directly contribute to fatigue. Long commutes reduce the quantity of time available for sleep. If you reduce the quantity of your sleep on a nightly basis below the necessary seven to nine hours, you accumulate a sleep debt. Research shows that when sleep is reduced to six hours or less in the previous sleep period, fatigue risk is increased.
- **Circadian Rhythm and Long Commutes** – Your body is naturally programmed by your circadian clock, an internal body clock. Your circadian clock is set by daylight and its rhythm signals your body to sleep at night and be awake during the day. Disruption of your circadian rhythm is a direct contributor to fatigue. The window of time your circadian clock is at its lowest, 0300-0500, a time when you may be commuting to work for an early morning shift. If you work a mid, you are working against your circadian rhythm, which also increases risk of fatigue and may reduce your alertness on the job and on your commute home. The number of fatigue-related car accidents is at its highest during the 0400-0600 time frame.

Is your commute non-negotiable? There are actions you can take to maximize your alertness. Prepare for your commute to work by planning your sleep for your upcoming shift and your work week:

- Attempt to schedule at least an eight-hour sleep opportunity; factor in about 30 minutes to fall asleep.
- Protect your sleep time by trying to establish a routine bedtime and wake time whenever possible.
- When planning your sleep schedule, consider the impact of long commutes and quick turns and think through other fatigue risk mitigations you may need to use.
- If your planned major sleep period is shortened, use strategic napping as a back up.
- When considering shift swaps, think through how it may impact your sleep schedule given your commute.



Fatigue and Shiftwork: Long Commutes

Prepare for your commute home if you are feeling fatigued:

- During your shift, use your breaks to recuperate and refresh.
- Honestly assess your fatigue level and determine if you need to use a mitigation before commuting.
- Take a brief nap prior to your drive home to refresh – consider combining it with strategic caffeine use.

Myth: Opening the car windows, turning on the air or turning up the radio increases alertness.

Fact: Cranking up the AC, rolling down the windows, and blasting your radio are scientifically proven to be *ineffective* as fatigue countermeasures, and produce a false sense of security that you are managing your fatigue. The only antidote to fatigue is sleep. If you are drowsy while driving, find a safe place to pull over for a short, 10-15 minute nap to refresh. Driving drowsy is not worth the risk to your safety or others'

