



Fatigue and Shiftwork: Early Morning Start Times

What is an “early morning start time”?

Shifts starting on or before 0600 are considered to have an “early morning start time” and can impact fatigue due to sleep loss and your internal body clock. An early morning start time may require waking up, commuting, or working during the 0300-0500 time frame when your body clock is at a low. During this “window of circadian low,” alertness and performance levels are lower and the likelihood of operational incidents is higher.

Why are early morning start times challenging to work?

Schedules that require early morning start times, particularly across multiple days, contribute to increased fatigue levels. Early morning start times work against your body clock’s natural rhythm because you have to wake up (or commute) during the window of time when your body clock is at its lowest and pressure to sleep is at its highest. To counter early morning start times, you need to go to sleep earlier than your body is programmed to in order to meet your daily 7-9 hour sleep need. Have you experienced the frustration of lying in bed wide awake when attempting a super early bedtime to prepare for an early morning shift? That’s your body clock signaling you to be alert. The ensuing sleep loss, a primary contributor to fatigue, results in beginning an early morning shift with a sleep debt.

Do early morning start times affect alertness and performance?

Yes. Early morning start times are only second to consecutive nights when it comes to reduced sleep and associated sleep debt. Research shows that sleep prior to an early morning shift is often reduced by as many as two hours when compared to working a standard schedule with start times at 0800. When sleep debt accumulates across a work week, alertness and performance are reduced, which increases the likelihood of incidents. Being awake during your window of circadian low, which falls close to early morning starts, may have the same impact. When your schedule includes early morning start times, you may experience fatigue signs and symptoms:

- Slowed reaction times, reduced cognitive speed, short-term and long-term memory decrements
- Impaired decision-making capacity and difficulties communicating, unpredictable performance
- Increase in likelihood of recovery errors - lapses (failing to take action) or slips (taking the wrong action)

So...what actions help maximize alertness when you have shifts with early morning start times?

- Attempt to go to bed early the night prior to the early morning start time – relax, shut down early.
- Don’t repeatedly hit the snooze button in the morning; it interrupts your natural sleep cycles.
- On your days off, sleep as long as possible to maximize sleep debt recovery and prep for your work week.
- If possible, take an afternoon nap if you did not get enough sleep the previous night.
- If you tolerate caffeine, use it as a short-term fatigue countermeasure, keeping in mind it takes about 15-20 minutes to take effect. Drinking caffeine just before a short nap increases post-nap alertness even further.





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Myth: “Morning people” are immune to sleep loss effects associated with early morning start times.

Fact: Even if you are a “morning person” you cannot push yourself to overcome the fatigue effect of sleep loss. Simply being a morning person does not stop the mental performance and alertness dip compounded by sleep loss and being awake early in the morning when your body clock is at a low.

