

Offshore Fitness Forum

Tired or Drunk?

The following information is taken from the Australian Defence Forces (ADF) military handbook, ADF studies and the North American Fatigue Management Program.

What is Fatigue?

Fatigue can best be defined as combinations of symptoms that include mental and physical elements, impaired performance, and subjective feelings of alertness. Characteristics of fatigue include: loss of alertness, attention, and vigilance; increased wandering thoughts; decreased reaction time; distorted judgment; decreased motivation; impaired memory; reduced field of vision; and increased frequency of microsleeps.

Multiple factors can affect or exaggerate the effects of fatigue

You are already familiar with many factors that can increase your level of fatigue, such as jet lag, interrupted sleep, inability to fall asleep (insomnia), changes in work hours and illness. Other factors are differences or extremes in temperature and humidity and uncomfortable living conditions.

Times of Worst Performance

Mental performance, especially alertness, is poorest when body temperature is at its lowest level. This is typically between 0200 and 0600 hours and is known as the 'circadian trough.' Another, less pronounced, circadian trough, called the 'circadian lull' in this guide, occurs between 1400 and 1800 hours.

The Human Factor

In a time when we can automate almost anything, what we cannot change is the limitations of the human body. Sleep deprivation has many of the same effects as alcohol intoxication: Impaired judgement, slowed reaction time, inability to concentrate, distorted short term memory, blurred vision, slurred speech, faintness, loss of manual dexterity and more.

Drivers awake for more than 18 hours had the same driving performance as when they had a 0.05 blood alcohol concentration (BAC). After 24 hours, the performance was the same as 0.08 BAC—the legal limit to be charged with driving while intoxicated.

We arrest people for driving drunk, but the work culture in many countries insists we work longer hours and with disrupted schedules to a degree that puts ourselves and others at risk. Some employees even see it as a bragging point to see who can work the longest with the least amount of sleep.

Accidents and Fatigue

Just as with alcohol impairment, the extent of fatigue is not usually noticed by the person affected. And worse, uninteresting and complex tasks (usually involving more risk) are more seriously affected by sleep loss than simple, repetitive tasks.

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No matter how well trained and experienced a person may be, the body will simply shut down after a certain amount of sleep deprivation – even in the face of imminent death. There are many reports of overtired soldiers falling asleep during or sleeping through enemy bombardment in the battlefield. So how much easier is it to fall asleep during routine operations?

Fatigue has been linked as part of the root causes of many major accidents such as Chernobyl nuclear disaster, Three Mile Island nuclear power plant disaster and the Bophal Chemical plant explosion.

Diminished Personal Safety

As fatigue is detrimental to both self-awareness and situation awareness, it leads to apathy, decreased attention to personal hygiene, neglect of normal safety precautions and procedures, and greater acceptance of risk.

Are you tired? The Plus 7 Test

The 'Plus 7' task is a continuous addition exercise. Begin by choosing a random starting number from five to nine. Add seven to it to get the sum. Continue to add seven to the sum. These additions are all done in the head, remembering the sum, and calculating the new sum. If soldiers can continue this task for at least one minute, without long pauses or mistakes, they are probably not experiencing severe sleep loss effects.

How to Improve Wakefulness

Take lots of breaks

Talk to someone

Work in pairs or groups and check on each other at intervals

Change the routine and tasks

Listen to music

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Tired or Drunk?

Vessel or Facility: _____

Date: _____ Time: _____

Record of Attendance:

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