



The Problem:

Human fatigue is a serious threat to safety and productivity in any industry.

What is fatigue? A physiological state of reduced mental or physical **performance** capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can **impair** an individual's alertness and ability to function safely.

The NTSB, FMCSA, FAA, and OSHA are just a few of the governmental bodies that recognize the danger posed by fatigue, and they all recommend organizations adopt measures to manage the risk associated with fatigue.

The Solution:

Z-Coach – an online fatigue management education program, accessible any time, anywhere, and on your own schedule. Z-Coach was developed by Alertness Solutions to provide scientifically-based knowledge, strategies, and tools to manage fatigue in any setting.

Z-Coach Components:

Self-evaluation tool:

- **ZProfile.** In 5 minutes, provides a portrait of an individual's sleep need, habits, schedule, etc.

Fatigue education and training modules:

- **Risks/Costs.** Illustrates fatigue-related performance and safety risks using real-world examples and current scientific data.
- **Fundamentals of Sleep.** Teaches the user about the basic physiological fatigue factors that affect alertness and performance.
- **Fatigue Mitigation.** Describes good sleep skills and highlights issues that can disrupt and disturb sleep.
- **Fatigue Countermeasures.** Builds on information in previous modules to lay out strategies for combating fatigue when it inevitably arises.
- **Assessments and Simulations.** Evaluates knowledge acquisition and illustrates use of strategies in real-world scenarios.

Library of Resources:

- **Tools.** Caffeine calculator, sleepiness scale, and other materials for ongoing management of sleep and alertness.
- **Resources.** Web links, scientific papers, relevant books, and videos.