

ALERTNESS GUIDE... Caffeine & Nicotine

Guide Objective: Use discussion topic on caffeine to identify its effective use and its place in reducing fatigue and enhancing endurance. Educate on the negative effects of nicotine and its role in contributing to fatigue as well as some tips for nicotine users.

Discussion: **CAFFEINE**

Along with nicotine and alcohol, caffeine is one of the three most widely used mood-affecting drugs in the world. As a stimulant, caffeine can play a positive role in alertness and reducing fatigue if used properly. But consumed in high doses caffeine can result in increased anxiety, lack of concentration and digestive disorders. Frequent consumption of caffeine can also result in addiction. A moderate dose of caffeine is considered to be 300 mg. per day. Once people start consuming more than that they are liable to end up with more side effects and less therapeutic effect.

Section 6.2.1	Common Sources of Caffeine		
COFFEE	Regular Coffee*	8 oz.	8-150 Milligrams of Caffeine
	Decaffeinated Coffee	8 oz.	5 Milligrams of Caffeine
TEA	Brewed Tea**	8 oz.	9-50 Milligrams of Caffeine
	Decaffeinated Tea	8 oz.	3-9 Milligrams of Caffeine
	Herbal (fruit) Tea*** 8	oz.	0 Milligrams of Caffeine
	Iced Tea	12 oz.	22-70 Milligrams of Caffeine
CHOCOLATE	Hot Cocoa	8 oz.	5-8 Milligrams of Caffeine
	Milk Chocolate	1 oz.	1-15 Milligrams of Caffeine
	Dark Chocolate	1 oz.	5-35 Milligrams of Caffeine
SOFT DRINKS	Coca-Cola	12 oz.	46 Milligrams of Caffeine
	Pepsi	12 oz.	38 Milligrams of Caffeine
	Dr. Pepper	12 oz.	41 Milligrams of Caffeine
	Surge	12 oz.	51 Milligrams of Caffeine
	Mountain Dew	12 oz.	55 Milligrams of Caffeine
	Jolt	12 oz.	71 Milligrams of Caffeine
	Sprite	12 oz.	0 Milligrams of Caffeine
	7-Up	12 oz.	0 Milligrams of Caffeine

*Depending on roast, method, & whether served with creamer, milk, etc.

**Depending on time steeped & type of tea leaves.

***Most fruit & herbal tea contains no caffeine; there are some exceptions.

**U.S. COAST GUARD GUIDE FOR MANAGING
CREW ENDURANCE RISK FACTORS Version 2.1 (Pg. 6-2, 6.3)**

Recommendation on using caffeine:

- Caffeine is most appropriate midway through the night shift and in the mid-afternoon when the afternoon dip in alertness is significant due to inadequate nighttime sleep. (See diagram 1.0)
- Pay attention to where your planned sleep time comes in before drinking excessive amounts of caffeine.
- Caffeine should be used as a stimulant to boost alertness only when necessary and should be avoided altogether within 4 hours of bedtime.
- When driving home, especially if you're getting off in the morning and going to go straight to bed, drinking caffeine will affect your sleep when you get home.
- Having a cup of caffeine when you first wake up, especially when feeling groggy from sleep inertia, will help relieve the groggy feeling.

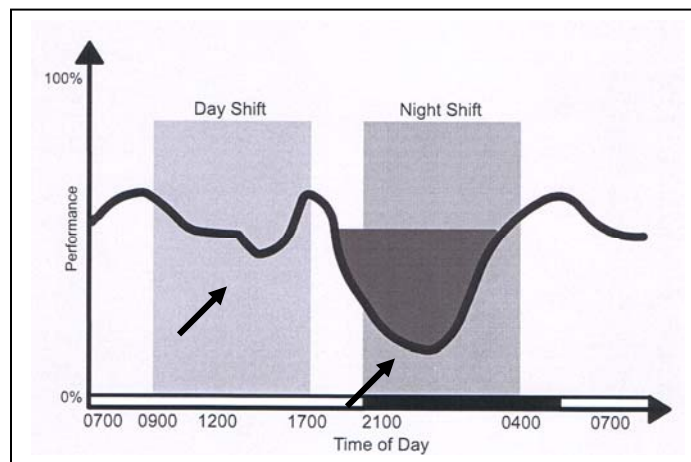


Diagram 1.0

NICOTINE

Unlike caffeine, there are no positive benefits from tobacco use – including cigarettes, cigars, pipes and smokeless tobacco. After a relatively short time, a person is often already significantly dependent on nicotine. Nicotine is an even stronger stimulant than caffeine. It stimulates brain-wave activity and increases blood pressure and heart rate. These factors all disturb your ability to get to sleep and remain asleep.

Recommendations for nicotine use:

Offer nicotine cessation programs and/or incentives to your employees.

- Designate smoking areas on your vessels.
- Provide air purifying systems on your vessels in common areas, wheelhouse or any other areas affected by smoking.
- Designate some of your vessels smoke-free.
- When driving home, especially if you're getting off in the morning and going to go straight to bed, smoking cigarettes or using other tobacco products will affect your sleep when you get home.

Summary:

Although the use of caffeine and nicotine are individual choices the results of the effects of these stimulants can impact everyone if they result in fatigue issues. Whether you live-on the vessel during your hitch or go home every day these recommendations can assist you in making healthier choices.

Resources for additional information on Caffeine and Nicotine:

Crew Endurance Management Practices -

A Guide For Maritime Operators

A Guide For Maritime Operations ADDENDUM

These manuals are available for downloading on the Crew Endurance Management System section of the USCG Human Element & Ship Design Division Web Site:

<http://www.uscg.mil/hq/cg5/cg5211/>