



coffee&health

from the institute for scientific information on coffee

Coffee and Travel

Fact or Fiction





The first Saturday in August is one of the busiest days for travel in Europe. Long car journeys can leave drivers feeling fatigued and those taking long haul flights suffering from jet lag. Managing travel related fatigue is vital to a safe journey.

Research has shown that moderate consumption of caffeinated coffee is associated with increased alertness and concentration¹ and together with taking sensible breaks coffee can help combat fatigue caused by long distance driving^{2,3} or long haul travel⁴.

Incidence of driver fatigue in Europe

1.3
million

Fatigue is a major factor in a large proportion of road accidents in Europe. There are over 1.3 million road accidents in the EU each year, causing an estimated 3 million injuries⁵.

20%

Driver fatigue is estimated to be responsible for up to 20% of road accidents each year⁶. Drivers who are fatigued, lack concentration or experience sleepiness are less likely to be able to brake or swerve effectively to avoid or reduce an impact⁶.

17
hours

Research by the European Commission has found that a person who drives after being awake for 17 hours doubles their risk of crashing⁸.

Zzz

Sleepiness reduces reaction time, a critical element of safe driving. It also reduces vigilance, alertness and concentration thus impairing the ability to perform attention-based activities, such as driving. The speed at which information is processed is also reduced by sleepiness and the quality of decision-making may also be affected⁷.

23%

Despite this, 23% of drivers say they have felt extreme fatigue whilst driving and 3% have fallen asleep at the wheel⁸.



FACT: Coffee helps combat driver fatigue due to the caffeine effect

Drinking caffeinated coffee improves alertness and concentration¹ which is essential for safe driving.

Drinking 1 cup of caffeinated coffee (80mg caffeine) has been shown to improve driving performance and reduce sleepiness during monotonous highway driving⁹. This was supported by a 2015 study, which found that drinking 1-2 cups of caffeinated coffee (150mg) can reduce levels of drowsiness by 25%¹⁰.

Taking a break from driving can also help, and the combination of a strong cup of coffee (150 – 200mg caffeine) and a short nap (less than 15 minutes) has been shown to help combat driver fatigue^{2,3}. Lorry drivers, a group known for their long distance driving, have been shown to have a reduced risk of accidents if they drink caffeinated drinks such as coffee¹¹ along the way. Fatigue during night time driving is also common and research has shown that drinking 1 strong cup of coffee (125ml containing 200mg caffeine) is as effective as taking a 30 minute nap in reducing driving impairment at night without altering subsequent sleep¹².

While existing road safety guidelines remain a priority the results from these studies suggest that simply drinking caffeinated beverages, such as coffee, during short breaks from driving could be a useful adjunct strategy in the maintenance of alertness while driving long distances.

FICTION: Drinking coffee during long haul travel is dehydrating

Dehydration is often experienced during a long haul journey, or when flying, and passengers are encouraged to drink water-based beverages regularly to maintain hydration.

Recent research suggests that drinking coffee does not lead to dehydration and contributes to daily fluid intake¹³. Although there is some indication of a mild, short-term diuretic effect of caffeine, it is not strong enough to counter-balance the benefits of fluid intake from coffee drinking. Advice to abstain from drinking moderate amounts of caffeinated coffee in order to maintain adequate fluid balance is unfounded^{13,14}.

FACT: Coffee helps when coping with jet lag

Jet lag is often experienced after a long haul flight across different time zones and can cause extreme sleepiness or wakefulness at inappropriate hours. To counter jet lag, it helps to adjust to the new time zone quickly - sleeping, waking and eating at times appropriate to that area.

Coffee consumption is associated with increased alertness and may help to manage feelings of sleepiness in those who experience jet lag. A review of the research suggests that caffeine may be effective at improving performance in those who are suffering from jet lag¹⁵.

However, for those taking short stopovers of 1-2 days in a different time zone, adapting to the local clock may not be the best strategy. Sensible naps, combined with a moderate intake of caffeine during times of appropriate wakefulness and short-term use of sleeping aids, appear to be the most effective ways to maintain alertness and sleep in these situations⁴.



Conclusions

Research suggests that drinking 1-2 cups of caffeinated coffee can improve alertness and concentration whilst driving. The European Food Safety Authority in its Scientific Opinion states that a 75mg serving of caffeine, the amount found in 1 regular cup of coffee, leads to both increased attention and alertness ¹.

Sensible advice for long-distance drivers is not to fight fatigue but to take a 30 minute break, a short nap and drink a cup of caffeinated coffee, as an effective way of combating driver fatigue ³.

The management of jet lag may be helped by consumption of caffeinated coffee during periods of sleepiness to increase alertness and performance ¹. Drinking coffee during a flight can also help to counter the effects of dehydration commonly experienced whilst flying as it is shown that coffee does not lead to dehydration ¹³.



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