

MINIMISING THE EFFECTS OF AIR TRAVEL & “JETLAG” ON TRAINING & RACING

Written by USSA Sports Science

INTRODUCTION

What is “Jetlag”? Jetlag literally is the effect of traveling through time zones on the body’s natural biorhythms and how that effects an individual physically. It is only one of the challenges your body is coping with both during and following extended air travel. The feelings the athletes may experience as “jetlag” come from a combination of:

- Sleep deprivation: This is due to the time changes and flight and travel requirements. Air travel often results in the athlete “losing” several hours sleep.
- Dehydration: The air conditioning in combination with the pressurization used in the cabin can result in significant dehydration. The results of this are often experience for as little as four and as much as seventy-two hours following the flight.
- Stasis: This is a word used to describe the effect of long periods of inactivity on the body caused during flight due to sitting for extended periods of time. This results in the pooling of blood in the lower limbs causing swelling of the feet and ankles. If intense training has been performed within twenty-four hours of the flight, waste products will also be pooled in the lower limbs resulting in slower muscular recovery, aching stiffness and general discomfort during or following flying.
- Altered, inadequate or problematic food intake
- Jetlag: Altered biorhythms as a result of traveling through different time zones resulting in upset sleep patterns altered hormonal production, liver function etc

MINIMISING THE EFFECTS OF AIR TRAVEL ON PERFORMANCE

1. Understand what is happening to you
2. Take preventative measures to minimize these effects

STEP BY STEP METHODS FOR MINIMISING THE NEGATIVE EFFECTS OF AIR TRAVEL

Before the Trip:

Hydrate: Roughly 48 hours prior to your flight start drinking more water than normal and decrease your caffeine and alcohol intake.

Exercise: During the 24 hours prior to your flight do a long LOW intensity session. The benefits of this are many but the mainly will increase circulation and sleepiness without accumulating waste products. This will increase your chances of getting better sleep on the plane.

Sleep: Increasing the amount of sleep you are getting in the few days leading into a flight will help to balance out against the sleep deprivation you experience on your trip. Do not try to switch your sleeping times much prior to departure unless you are sure you will be able to sleep. This can often be more of a problem than an aid as it tends to just add to sleep deprivation and fatigue.

Eat well: Take extra food that will improve the quality of what you consume during travel. Fruit, water and juices are good examples.

Time Zone: Get into your destination time zone as quickly as possible. Usually the airlines help with this by changing your meal times and adjusting the cabin lights. Try to follow this assisted scheduling as much as possible.

Upon Arrival: (most of your trips to Europe are scheduled so that you arrive early in the morning followed by several hours of driving before you reach your final destination).

Continue to hydrate: Use a mixture of fluids to aid absorption. Avoid using water as the exclusive fluid.

Exercise: Light exercise should be performed OUTSIDE in the daylight to stimulate your body’s natural systems for recognizing the time of day. Melatonin is the key. This exercise also help to stimulate your circulation, which will assist in removing any residual effects of the stasis experienced during the flight. It also releases endorphins, which will help you relax and sleep better in the evening.

Eat at normal meal times for your destination

Catch-up on small amounts of sleep: In this case if you snooze you don’t loose – as long as you do so BEFORE you exercise, and you don’t sleep longer than 60 minutes. The extra bit of sleep will help balance out your loss of sleep earlier.

Caffeine: Avoid coffee or other stimulants after mid-day (for 2-3 days after flying) as although these may help you not sleep in the day they will increase the risk of you not sleeping well at night.