

## Flying May Shrink Your Brain

By Tysa Goodrich

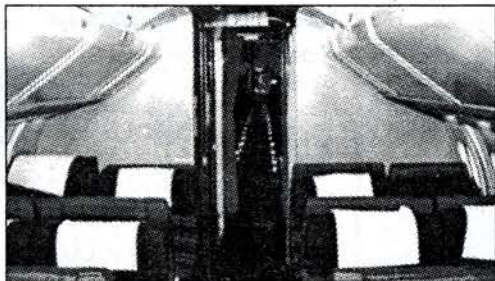
Frequent flying across multiple time zones without adequate recovery time from jet lag may shrink the thinking and learning parts of your brain.

Recent studies published in the May issue of *Nature Neuroscience* compared the brains of two groups of women flight attendants who had spent five years crossing multiple time zones, and who had logged a comparable number of hours in the sky. One group had fourteen days of recovery time between flights. The other group, only five days. Using MRI scans, the researchers discovered that the flight attendants with less time off had smaller right temporal lobes.

What they also found was a link between brain shrinkage and high levels of the stress hormone cortisol. The short-recovery group also performed worse on reaction time tests, taking -- on average -- 82 milliseconds longer to respond. Airline workers in general who are subjected to repeated jet lag have been found to have higher levels of cortisol, as well as impaired memory.

Interestingly enough,

symptoms of jet lag seem to match symptoms of being under stress, as well as depression and Post-Traumatic Stress Disorder, where also, there is often suffering due to brain shrinkage and increased levels of cortisol. Whatever you find works



Take healthy steps prior to flying

for you in reducing stress may likely help mitigate jet lag.

But to offer up some suggestions for jet lag, here are a few tips I've discovered work for me, as well as some sound advice given by others:

Diana Fairechild, a former flight attendant and author of "Jet Smarter: The Air Traveler's Rx," says to put yourself in the mindset of the local time of your destination. "Adjust your bedtime to the new,

local timetable as soon as possible," and "set your watch to local time after takeoff." In her book, she alerts readers to hazardous airline practices, and to the dangers of air travel, including deep vein thrombosis, recycled air, air rage, fear of flying, and toxins.

In the days preceding your trip, eliminate as much fatty and salty foods as you can (except good fats, like avocados and cold pressed olive oil). Eat plenty of green leafy vegetables, and that doesn't mean iceberg salads from McDonalds. Stay away from refined sugar as much as possible, and try not to overeat. Drink juices freshly squeezed or blended.

Always -- before, during, and after your flight -- drink plenty of water. Flying dehydrates you. Avoid caffeine and alcohol, which also dehydrate you. These substances will not help your jet lag. They will not.

Love yourself further and wear comfortable clothes.

Avoid taking motion-sickness medication or sleeping pills, which actually aggravate jet lag. Ginger can combat motion-sickness

naturally, without putting chemicals into your body. Scrape fresh ginger into the brew of your favorite non-caffeinated tea. Also, encapsulated ginger is more effective than Dramamine in preventing motion sickness for jet lag.

Request a heart-healthy or vegetarian meal when you buy your ticket, and leave the bread on the tray. The gluten in wheat can slow your blood and deplete your energy. Stretch in your seat (reach for the sky, lengthen your arms and upper torso). Get up and walk around to stretch your legs during your flight. If possible, find a place to bend over (with a straight back) to stretch your hamstrings. I find that if I spread my feet apart, this exercise proves to be gentle and beneficial. Oxygen deficiency was not a primary focus of the recent studies, but it is clearly a viable issue for air travelers, and it clearly has impact on the brain. Deep breathing exercises and time outdoors before and after your flight is highly recommended.

It is an especially good idea to exercise the day before your trip. A good steady workout of 20-30 minutes to elevate your heart rate, complemented by some Yoga stretches and deep-breathing, will help lessen the effects of jet lag.

Judith Lasater, a yoga

instructor and physical therapist, has a special section in her book, "Relax & Renew: Restful Yoga for Stressful Times," that includes poses for headaches, jet lag, menopause, and breathing difficulties. A yoga pose suggested for jet lag asks you to extend your legs up against a wall (your buttocks also against the wall) while you rest your back on two stacked double-folded blankets placed several inches away from the wall (supporting your lower and middle back). A single-folded blanket is placed under your head and shoulders. You begin by taking slow and steady breaths. You will slowly feel the blood draining from your legs. Stay in this position for as long as it feels comfortable, and keep breathing. To come out of the position, you simply bend your knees and roll to one side. To see a picture of this pose, visit [www.sunandmoonstudio.com/restore.html](http://www.sunandmoonstudio.com/restore.html) (pose #6).

Finally, if you're game for trying essential oils, like rosemary, lavender, bergamot, neroli, clary sage, and olibanum, you might find yourself surprised at their soothing effects. An aromatherapy roll-on created by Neal's Yard Remedies has a blend specifically geared for jet lag. You can order this roll-on from Catskill Morning Farm online.

# VALLEYS SCENE