SleepCaptions

Jetlag

Jet Lag: an alteration of circadian rhythms following trans-meridian flight that causes the traveler to be out of sync with the external environment. It makes those who travel across time zones feel inappropriately tired throughout the day, yet awake at night. Jet Lag can be strong enough to interfere with travel plans..

Features

Jet Lag results from travel to a place where circadian clocks are naturally set to a different time. The sun rises and sets significantly earlier or later. People eat and engage in social activities at different times. Sleep and wakefulness in the new time zone also differs from how the traveler's internal clock is set.

The change in circadian cues from the environment precipitates any number of symptoms. Travelers may complain of disturbed sleep. Even if they do not have trouble falling asleep, they frequently wake up. The loss of sleep then makes for tiredness the following day.

Jet Lag sufferers may also experience a general feeling of malaise. Digestive problems include nausea, constipation and diarrhea. Headache, air sickness, sweating, and irritability also occur in some people.

Rapid travel across time zones precipitates these symptoms, not the length of a flight. A ten hour flight from northern Canada to the southern tip of South America might produce a general feeling of malaise. Such symptoms would be related to confinement on an airplane with other people, not circadian disruption.

How jet lag affects sleep and wakefulness also depends on which direction time zones are crossed. East to west travel is generally less troublesome because it is easier to stay up a few hours later than it is to 'force' oneself to sleep earlier.

Travel east or west across the International Date Line (IDT), where the eastern-most time zone meets the western-most time zone does not produce symptoms of Jet Lag because the actual time difference does not affect circadian rhythms.

People who work overnight or early morning shifts report the most sleep problems. They feel unrefreshed after sleeping and also sleep up to four hours less than average.

Diagnosis

People with jet lag are often able to overcome it on their own. Frequent travelers with persistant jet lag may well benefit from a sleep evaluation.

Keep a diary of your sleep habits during travel across time zones. The log should reflect: bedtime, the time it takes to fall asleep, the number and duration of awakenings during the night, and the time you arise from sleep. Include your "normal" time zone, as well as the time zones of your destination(s). No sleep test is necessary unless another disorder is suspected.

Treatment

Begin adjusting ahead to the new zone. Avoid caffeine after noon and alcohol within four hours of bedtime. If necessary, use a full spectrum lamp or portable visor set to 10000 lux for 30 to 90 minutes immediately upon awakening, or just before getting up. Exposure to sunlight at this time may also help.

For east to west travel: Go to bed later on the day of arrival to accomodate the earlier time zone.

For west to east travel: Stay up until you feel tired following arrival, yet force yourself awake at the new wake time. Avoiding naps may then produce an earlier sleep onset on the second night.

Do I Have Jetlag?

I have trouble sleeping at night.

I feel tired during the day.

I do not function as well during the day.

I have been feeling malaised or mildly ill.

I am experiencing stomach problems.

These problems began after travel across at least two time zones.

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Jetlag Mechanics

Jet Lag is a Circadian Rhythm disorder or one that disrupts the cycle of sleep and wakefulness, among other bodily functions. Daylight cues the activation of neurochemicals that produce alertness and physical activity. The presence of lightness also decreases the production of melatonin, which makes us sleepy. Darkness promotes sleep by increasing the production of melatonin. Once asleep, our bodies engage in hormone regulation and other nocturnal activites.

Jet lag misaligns environmental cues with our internal clock. Adjusting our internal clock to a new time zone takes more time than the average trip allows. As a result, sleep, hormone regulation and other bodily functions suffer.

SleepCaptions

Risks for Jetlag

- ✓ Occupation (pilot, flight attendant, business travelers)
- ✓ Frequent travel for any reason

Effects of Jetlag

- ✓ Chronic daytime sleepiness
- ✓ Poor job performance
- ✓ Decrease in social activities
- ✓ Increased illness
- ✓ Stomach problems
- ✓ Menstrual problems

Need more information?

Visit the SleepMedicine Education web site at: sleepmedicineeducation.com for additional publications. See also:
SleepIssues: "Out of Sync"
SleepGuides: "Treating Sleep Disorders"

To schedule an appointment at any Sleep Medicine Centers location, visit www.sleepmedicinecenters.com or call:
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SleepMedicine EDUCATION

Did You Know?

Jet lag affects most travelers crossing 5 or more time zones, according to a 2008 review posted in the British Journal of Sports Medicine.

According to a 1983 study in the journal, Aviation, Space and Environmental Medicine, Army soldiers flying from Germany to the U.S. took 3 days to adjust to the time change, while those flying from the U.S. to Germany required 8 days to adjust.

According to the American Academy of Sleep Medicine, jet lag affects males and females of all age groups, with the elderly suffering the worst consequences.