

What is Jet Lag?



Long journeys can be exhausting and, to make matters worse, when you arrive at a destination your body clock can be out of step with the new timings of daylight and darkness.

Jet lag is a short-term sleep disorder. It usually occurs when flying across three or more time zones and can cause fatigue, impaired thinking and memory function, an upset stomach and mood changes that persists for days or even weeks after a flight.



**The Woolcock Institute of Medical Research
is a not-for-profit organisation**

If you are interested in further information about becoming involved in our research studies or making a donation, please visit our website www.woolcock.org.au.

Your contribution will make a difference.

Thank you for your support.

P 02 9805 3000
F 02 9805 3199
E info@woolcock.org.au

www.woolcock.org.au

Jet Lag



WOOLCOCK 
LEADERS IN BREATHING & SLEEP RESEARCH

WHAT IS JET LAG?

We all have an internal body clock which controls our circadian rhythms. These control when we sleep at night and when we are the most alert during the day. The body clock, or circadian clock, is governed by light exposure, which means that we are exposed to a regular rhythm of light during the day and dark at night. This is one of the strongest interactions between our environment and the human body, the interaction between the light-dark cycle (sunlight and night-time darkness) and the signals to control our sleep-wake cycles. This interaction becomes disrupted when you travel to different time zones.

The world is divided into 24 time zones and your body clock is synchronised to the time zone you live in. Travel to a new time zone means your body clock needs to resynchronise to the new time zone.

Jet lag can be experienced if you travel cross three or more time zones. When flying from the east coast of Australia to New Zealand or Japan, you probably won't be affected very much as there is only a one- or two-hour time difference respectively. In contrast, if you travel from Australia to USA or to Europe which traverses many time zones, you are likely to disrupt your body clock and experience symptoms of jet lag.

Research also shows that jet lag tends to affect people more severely if they are flying east, as the body clock does not adjust as quickly.

WHAT ARE THE SYMPTOMS OF JET LAG?

The symptoms of jet lag are different for everyone. They depend on how many time zones you traverse and in which direction you travel. Jet lag disturbs your sleep, usually making you feel tired and low in energy during the day. Symptoms may include:

- having trouble getting to sleep
- waking often during the night or waking up early in the morning

- having difficulty concentrating
- being a bit clumsy or irritable because you are so tired
- indigestion or a low appetite
- feeling generally unwell and out of sorts

HOW LONG DOES JET LAG LAST?

The severity and duration of your symptoms will generally depend on the number of time zones you traverse in your flight. You may start to feel better in a couple of days but if you have travelled a very long distance in a rapid time period it can take up to 14 days to readjust your body clock and start to feel better. Different body rhythms adjust at different rates. For example, you might feel your digestion has recovered but still have trouble sleeping.

WHAT CAN YOU DO TO MINIMISE JET LAG?

There are a few things that can make jet lag worse:

- Tiredness - be well rested before your flight and rest during the flight
- Alcohol - may help you nod off but it impairs the quality of sleep and having a hangover can make jet lag feel worse. If you drink any alcohol before or during your flight, make it just a small amount
- Caffeine - can disrupt sleep too. Stick to the amounts you normally drink and do not drink caffeine within a few hours of when you plan to go to sleep

HELP YOUR BODY CLOCK ADJUST

It may help to begin shifting your internal clock before you leave. Try getting up earlier and as you get more tired at night, going to bed earlier if you are flying east, or going to bed later for a few nights if you are flying west.

Keep your watch on your home time until you arrive at your destination. This will help you recognise how and why you are feeling jet lagged. If you arrive in the

evening, sleep early on the flight, then stay awake so you can go to bed when you arrive. If your flight arrives in the morning, sleep as much as you can so you can stay awake throughout the day.

Natural sunlight can help your body clock adjust. When you arrive, try to get into the local routine immediately and spend the day outdoors.

If you are travelling west, seek exposure to bright light in the evening. If you are travelling east, seek exposure to bright light in the morning.

When travelling for business, it may be helpful to arrange important meetings to coincide with daytime at home.

If you are only staying a few days, your body may not have time to adjust to local time. Sometimes it is best just to stick to your usual home timings. If you are not sure, ask your GP who may be able to advise you or refer you to a travel medicine expert.

TREATMENTS FOR JET LAG

There are limited medications specifically available for jet lag. However, there is evidence to suggest that the hormone melatonin can be useful if you are travelling across more than five time zones. Melatonin is only effective for eastward destinations. It has not been licensed yet for jet lag, but if your GP has experience in this area, he or she may be able to prescribe it to you. The timing is important so it is best to get advice from a sleep specialist about the scheduling of melatonin. If you take it at the wrong time, your body clock may think it is going in the opposite direction! Never drive after taking melatonin as it works as a hypnotic.

If you are tired when you need to be alert, caffeine can help, but do not drink lots of coffee in the hours before you need to get to sleep.

To find out more go to www.woolcock.org.au/clinic.