WHAT IS IT?
● Jet lag occurs when long-haul flights that cross time zones disrupt the body’s circadian rhythms.
● Circadian rhythms are normally synchronised with local time; they control many of the body’s functions including sleep and wakefulness, hunger, digestion, bowel habits, urine production, temperature, hormone secretion and blood pressure.
● Those with strict routines tend to suffer most from jet lag.
● Children and babies, who can sleep at almost any time, rarely show symptoms of jet lag.
● Recovery takes an average of one day for each time zone crossed.
● Various prevention and treatment methods exist, the effectiveness of which can depend on the individual.

CAUSES
● After crossing time zones, the body needs time to adjust to new times of light, darkness and meals and often to differences in temperature.
● The problem is worse when travelling east because the body is better able to adapt to a slightly longer day than a slightly shorter one.
● The effects can be intensified by dehydration, lack of sleep, low levels of oxygen during the flight, alcohol and stress.

SYMPTOMS
● Disturbed sleep patterns.
● Disruption of digestion and bowel habits.
● Disorientation.
● Clumsiness.
● Loss of appetite.
● Fatigue.
● Lack of concentration.
● Memory problems.
● Cold or flu-like symptoms.

PRE-FLIGHT PREVENTION
● Get plenty of sleep in the days leading up to travel.
● Adjust sleep patterns towards the destination time zone in the days before travel – going to bed and getting up earlier if travelling east or sleeping later if travelling west.
● Book a flight that arrives in the late afternoon or in the early evening so that natural light can help to regulate the body clock.

IN-FLIGHT PREVENTION
● Passengers should change their watches to the destination time on boarding the aeroplane when taking long-haul flights.
● Long journeys should be broken up with a stopover whenever possible.
● Passengers should avoid overeating and drinking alcohol.
● It is better to eat meals at the normal destination meal times during the flight.
● Travellers should ensure that they drink plenty of water.
● Light exercise is recommended during the flight.
● It helps to spend time sleeping or napping, particularly if arriving in the daytime.
● Some people use sleeping tablets, but as most of these last for eight hours, they may prevent people moving around and increase the risk of deep vein thrombosis (DVT).

MINIMISING EFFECTS ON ARRIVAL
● Where possible avoid important meetings in the first few days.
● Get into a routine immediately.
● Exercise every day.
● Drink caffeine only when needing to be alert.
● Drink plenty of fluids.
● Take oral rehydration sachets to ease dehydration.

TREATMENT
● A review of trials investigating the use of melatonin, a hormone secreted from the pineal gland to induce sleep, has found it effective in preventing or reducing jet lag.
● Little is known about the long-term effects of melatonin, and further investigation is required into its effects on people with epilepsy.
● Timed exposure to or avoidance of bright light can be effective. However, this system is complex, depending on the number of time zones crossed and the individual’s normal routine.

REFERENCES

WEBSITES
Aviation Health Institute: www.aviation-health.org
Doctor Travel: www.doctor-travel.com/jetlag.html
NHS Direct: www.nhsdirect.nhs.uk