

# ten ways to prevent jet lag

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Tennis players and coaches at competition level may have to travel across multiple time zones to reach tennis events all over the world. This disturbs the normal human circadian rhythm and may induce that dragged-out, out-of-sync feeling known as jet lag. Symptoms include fatigue, irritability, sleeping difficulties, loss of motivation, loss of appetite, loss of mental acuity, and headache. These effects are temporary and disappear in the course of a few days, when your internal clock is attuned to the new, local environment again.

Flying eastwards, and therefore resetting your body clock forward, is often more difficult than flying westwards and adding hours to your day. This is because the body clock adjusts more easily to a phase delay (going to bed and getting up later) than a phase advance (going to bed and waking up earlier). Also, the longer the flight, and the more time zones you cross, the longer the jet lag symptoms will last and the worse they will be. Flying north or south does not produce jet lag.

As a general rule, for each hour of time difference you need approximately 12 hours to one day of "adaptation time". Thus, if you travel to another country with an 8-hour time difference, you may need to travel a minimum of 4 days in advance to ensure that you have at least partially recovered from the jet lag by the day of your first match. Of course, whether or not you choose to do so also

depends on your personal experience with jet lag, the local conditions (expenses, availability of practise course etc), and how much time you have available.

Below are several guidelines that you can follow in order to overcome the symptoms more efficiently.

## 1. Adjust your sleep-wake cycle prior to departure

Begin resetting your body's clock one or two days in advance of your departure by going to bed earlier and getting up earlier prior to flying west (e.g. when flying from the US to Europe), and by going to bed later and getting up later when you have to fly east (e.g. from Europe to Asia). However, adjusting the sleep-wake cycle prior to travelling is of marginal benefit only, and an adjustment of more than 2 hours is not recommended.

## 2. Plan your arrival time

Another strategy is to try to schedule your arrival at your destination at roughly your usual bedtime, according to the clocks in the time zone to which you are flying. That way you can start with a good night of sleep. This is usually the best option when you fly west. Or try sleeping on the plane and planning to arrive at the hour you usually start your day. This may be the best option when you fly east. In these ways, you immediately begin to orient your body systems to the new time schedule, a valuable psychological and physiological

advantage.

## 3. Reset your watch

Set your watch to the local time of your destination when you step into the plane. This way, you start thinking in terms of the new time, and you use the hours that you travel to start the adjustment process.

## 4. Get some extra sleep in the plane

Prepare yourself for optimal sleep in the plane. Close the window shade or put a blanket over your head. You can also use an eye shade, ear plugs and a neck pillow to be more comfortable and sleep better. Try to stretch your body as much as possible and avoid sleeping contracted.

## 5. Drink plenty of fluids

When travelling by air, the atmosphere inside the plane is very dry, ranging from 6 to 15% humidity. To avoid dehydration you should drink extra fluids during your flight, but moderate your consumption of beverages containing alcohol and caffeine. They increase dehydration and may disrupt your sleep. Apply a moisturiser to keep your skin moist; massage your body, especially legs and feet, to stimulate circulation.

## 6. Eat light

Avoid eating heavy, fatty, and salty meals before and during your flight. A light meal is easier to digest, and will allow for better sleep. It has been suggested that carbohydrate rich meals stimulate the indolamine-system, thereby inducing sleep, whereas meals rich in proteins stimulate the adrenaline-system and wake you up. However, there is no scientific evidence to support these claims. It seems that the timing is more important than the contents of the meals. If you have a special diet, be sure to follow it.

## 7. Make yourself comfortable

It is crucial that you feel comfortable on board. This can be accomplished by wearing light loose-fitting clothes or by bringing comfortable clothes or shoes to change into. Avoid shoes with cords, heavy boots and tight socks that may affect blood circulation or alternatively take off your shoes. You may want to consider wearing layers to remove or add depending on the cabin





temperature.

Try listening to relaxing music or follow the guidelines on relaxation strategies (fly-aerobic) provided in the in-flight magazines and audio channels of many of the airlines. They include several ideas on relaxation and stretching exercises that can be performed while seated and that will help you to minimise fatigue and ease your body.

### 8. Move around

During your flight, and especially on lengthy flights, move your toes, ankles and knees from time to time while you are seated, and get up frequently to stretch and walk the aisles. This periodic exercise will help improve your blood circulation and avoid stiffness in your body. It may reduce the risk of the so-called “economy class” syndrome, a venous thrombosis caused by sitting (too) still for a long period of time. Also, do not place your bag underneath the

seat in front of you, but place it in the overhead cabins to preserve the available space around your seat.

### 9. Use natural signals to tune your body

There are several main signals that govern the internal body clock, including light, activity, and food. Try to use these signals to help your body come into synch with the local time. Avoiding light in the morning and actively seeking stimulation (light, social activity, exercise) is useful after westward flights; performing moderate exercise in the morning and closing the curtains at night will help you recover faster after an eastward flight. Avoid prolonged napping. Mid-afternoon tiredness should prompt some exercise rather than sleep. Also, use meal times to speed up your adjustment to the local situation. Eat your meals at the appropriate time to help your body adjust as quickly as possible.

### 10. Be moderate with chronobiotic drugs

Occasionally, you may want to ask your doctor for a light sleeping pill (short half-time) that can be easily eliminated by your body. They are sometimes helpful when you want to sleep in the plane or after flying east, when you have trouble falling asleep the first or second night.

It has been suggested that melatonin, whose main functions are to co-ordinate biological rhythms, might be better than sleeping pills to alleviate jet lag. Melatonin levels are low during the day and high at night, thereby providing a signal to the organism indicating when it is day or night. Melatonin secretion at night may be advanced 2-3 hours when melatonin is given in the early evening, thereby producing a phase advance. However, it is advisable for athletes to try to limit the use of either type of drug, because of possible side-effects and the risk of hangovers.