

Why The Effects of Jet Lag Are Worse When Flying West to East

By Paige Towers • July 18, 2016 at 4:24pm

SHARE ON FACEBOOK TWEET TUMBLR EMAIL

If you're a frequent flyer, then you probably have a fair share of hacks for, say, reducing the stress of long security lines, preventing the onset of an uberstiff neck after napping in economy class and timing your water intake so that your bladder isn't about to burst by the time the pilot hits the 'seatbelts fastened' sign. But there's one scenario that seasoned travelers have long testified to

but researchers had yet to fully breakdown: the observation that it takes significantly more time to recover from jet lag when flying west to east than it does when flying east to west.

A new mathematical model

completed by researchers from the University of Maryland is the first of its kind to address this issue of our bodies' unequal responses to the direction of our crosscountry or crosscontinent travel. According to their data, for instance, a person who flies across three time zones going west to east (like Los Angeles to New York City, for example) will take an average of four days to recover from jet

lag. Yet, a person who flies the same distance but in an westward direction (like New York City to Los Angeles) will fare better — taking an average of three days to recover. To come up with this conclusion, it took some pretty heady math.

The researchers' model, published in the journal breaks it down. Our brain houses thousands of pacemaker cells in a region of the brain called the suprachiasmatic nucleus, which signal to our bodies whether it's day or night. And when we're zipping through the skies past the normal rising and setting times of the sun, these cells are unable to establish a wake sleep rhythm concurrent with the time zone at our destination, leading to feelings of jet lag. Yet our internal body clocks — on average — have a natural cycle lasting slighter longer than a day (24.5 hours). So forcing them to adjust backwards in order to lengthen the day is a more natural process than shrinking the day, meaning it's easier for the body to adjust to a east to west time change.

<http://vanwinkles.com/whyjetlagisworsewhenflyingwesttoeast> 2/4

Chaos

,

iStock by Getty Images

11/10/2016 Why Jet Lag is Worse When Flying Eastward | Van Winkle's

This may all sound a little confusing. But the model that researchers built shows how much longer, theoretically, recovery times will be when flying eastward compared to westward. The numbers in the box represent how many time zones have been crossed, where 9E represents nine time zones traveled west to east and 9W represents nine time zones traveled east to west. (For an easy travel hack, the number of time zones you'll cover on your next trip can be calculated on Prokerala.com

. For instance, flying from Alaska to Berlin means that you're crossing 10 time zones going west to east.)

<http://vanwinkles.com/whyjetlagisworsewhenflyingwesttoeast> 3/4

iStock by Getty Images

The researchers hope that their model may not only provide insight into the irregularities of how flying disrupts our body

11/10/2016 Why Jet Lag is Worse When Flying Eastward | Van Winkle's clocks, but also potentially contribute to further research on how to combat jet lag. But for now, frequent flyers have still mastered a few hacks that you can consider using to combat

your brain's confused pacemaker cells: for instance, consider taking melatonin to mellow out, setting your clock for your new location asap so as to embrace your new time zone and eating as if you're on your destination's meal schedule.

<http://vanwinkles.com/whyjetlagisworsewhenflyingwesttoeast> 4/4