**Editing Assessment**

The following article is a real draft from a writer. The article contains several errors and enables us to assess your general editing style. When editing, remember that an editor must balance editorial vision with the writer’s style and ability. Some questions to think about during editing: Does the article make sense to you? Do you feel that you have enough background information? We expect associate editors to be able to critically (1) evaluate the strength of the argument, (2) improve the article’s organization, structure, and tone, and (3) fix all grammatical and spelling errors.

When editing, please use “Track Changes” and insert comments with the “Insert Comments” feature. We would like to see comments to clarify your edits throughout the article as well as a general summary of your edits at the end of the article.

Please also fix **the first two citations** at the end of the article using the Vancouver style guide [available here](https://www.imperial.ac.uk/media/imperial-college/administration-and-support-services/library/public/vancouver.pdf).

**Health and Safety During Air Travel**

In a world that seems to be getting smaller and smaller as new technologies let us easily connect with people on the other side of the world, long airplane flights are becoming a commonality. But accompanying the increase in air travel are increases in problems such as deep vein thrombosis and jet lag. Deep vein thrombosis is a blood clot in a vein that occurs as a result of remaining immobile for long stretches of time.[1] Jet lag, a more common phenomenon, is the body’s reaction to the disruption of its circadian rhythms. Jet lag can result in symptoms such as lack of sleep and hunger.[2] Recently, scientists have discovered how to modify those circadian rhythms by manipulating the way the adrenal gland, which controls these rhythms, responds in mice.[3]And while advancements are being pursued in the field of science, new laws are also being established relating to passenger health and safety in commercial airlines. Yet compared the laws passed in other aspects relating to airplanes, such as fees and flight delays, new reforms in passenger health for commercial airlines have been few. [4]

During long flights, most passengers end up sitting in the same position for extended periods of time, usually only getting up a few times, but for the most part remaining seated. Not only can this be uncomfortable, it can also be harmful to one’s body. As a result of staying seated for long stretches of time, blood clots in the deep veins of the legs can be formed. These clots are called deep vein thrombosis. The clots can result in simply just soreness or swelling of the legs, but if some of the clot were to break off and go through your bloodstream the effects could be more dire. And this can happen anywhere from a few hours to a few days after a clot is formed. Once a clot is in the bloodstream it can possibly get stuck in the lungs, where it can cause shortness of breath, and in some cases even death. Deep vein thrombosis is more common in individuals who have previous history of such blood clots, or have recently had surgery, or have cancer or even those who take oral contraceptives.[1] In cases of such individuals the risk of deep vein thrombosis is much higher, as is the risk of the deep vein thrombosis becoming fatal. [5]

The best way to minimize the risk of deep vein thrombosis during a flight is to make sure to get up and walk around every few hours. It also helps to wear comfortable clothing and make sure one’s leg movement is not limited by carryon luggage under the seat. For those who are at an increased risk for deep vein thrombosis, wearing graduated compression stockings, which allow for better bloodflow in the calves, thereby further minimizing the chance of blood clotting, can help. [1]

When travelling across the world it is common to experience symptoms of jetlag, such as tiredness during daytime, and not being able to sleep during the night, as well as lack of appetite and nausea. Jet lag effects different people in different ways. The occurrence of jetlag is directly linked to a disturbance of a body’s circadian rhythms that result from a body being forced to adjust to a different sleeping and waking cycle. Circadian rhythms are also known as the biological clock, which is synchronized to the 24 hour cycle of night and day. When people travel to places that have a different night and day cycle, the body needs time to adjust and while it does so undergoes jetlag.

There are thought to be many ways to limit the effects of jet lag, but they range on the scale of effectiveness. Getting sleep before and during a flight is said to help, as is exposing oneself to daylight after arrival so as to aid your body in more quickly adjusting to the new times it needs to run on. Also, making sure you get at least 4 hours of sleep during night time can help one more quickly adjust to a new time.

While these methods are all different ways to minimize the symptoms of jetlag and help one’s body adjust to a different clock, there isn’t an actual cure for jetlag. At least not yet. Scientists are trying to discover ways to get rid of the symptoms of jet lag, allowing for aa faster adjustment of one’s circadian rhythms. Experiments have been done with mice to see if the biological clock can be reset faster. It was discovered that the resetting of the circadian rhythms in a body depends on the adrenal gland, which is an endocrine gland that is located on top of one’s kidneys. The adrenal gland is responsible for producing hormones, and one particular type of hormones that it produces called glucocortoids is thought to be essential in resetting the circadian rhythms. The scientists researching this decided to inject the mice with metyrapone, a drug that inhibits the production of these adrenal glucocortoids, at regular intervals. The drug application allowed for a faster or slower retrainment of the body’s rhythms depending on how it was administered. While this research is still only in its beginning stages, it could potentially, with time, be translated to how to speed up the transition time required to change one’s circadian rhythms.

Yet, even with all of this knowledge and research in the fields of air travel, the rules and regulations concerning airplane safety remain mostly the same. Particularly when compared the laws passed in other aspects relating to airplanes, such as fees and flight delays, new reforms in passenger health for commercial airlines have been few.

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