

Equine Jet Setters

The consequences of jet lag in horses have become more relevant in recent years due to international competition and the import/export of horses worldwide. If you've flown internationally, you understand how "out of sorts" jet lag can make you feel. It appears equine travelers suffer the same.

Nearly all organisms on this planet, including humans and horses, have adapted 24-hour cycles determined by sunrise and sunset. Jet lag occurs when there's an abrupt change in the light-dark cycle resulting from travel across multiple time zones; the greater the number of time zones traversed, the more jet lag.

The Maxwell H. Gluck Equine Research Center at the University of Kentucky has successfully isolated a number of the "clock genes" in horses. Clock genes you ask? During daylight hours, the eyes perceive light—these light "signals" travel to the brain where they activate a number of "clock genes" that relay "time of day information" to the rest of the body. When jet lag occurs, there's major disruption of each one of these processes. This is serious business, affecting blood pressure, heart rate, wakefulness, hormone secretion, metabolism and temperature.

Continuing study on equine jet lag is still underway, but in order to reduce the effects of jet lag in horses (and perhaps humans too!), here's what the researchers recommend:

Since feeding schedules help set biological clocks, prior to travel change feeding and exercise routines to mimic the new time zone.

Lighting is the biggest factor in jet lag, so exposing horses to bright early morning light for several days prior to an eastward journey, or extended hours of evening light prior to westward journey, helps synchronize internal clocks.