Don't overshoot body's internal clock

AMHERST, Mass., Aug. 31 (UPI) -- Symptoms of extreme jet lag may result from the body overshooting as it tries to adjust to particularly large leaps forward in time, says a U.S. study.

Researchers from the University of Massachusetts Amherst say the body's sleep and wakefulness patterns are just two of the physiological processes that run on a roughly 24-hour-cycle, or circadian clock.

These and other processes are coordinated by the master pacemaker, or clock, an area of the brain with a natural cycle that is approximately 24 hours long, according to study leader Hava Siegelmann.

In mammals, the master clock is a group of cells called the suprachiasmatic nucleus, which lies at the base of the hypothalamus. The SCN receives information on daylight sent from the eyes' optic nerve and can be reset by environmental cues such as light.

The researchers recommend people who want to address jet lag advance their master clocks in chunks of not more than four hours, thus allowing the body's clocks to remain coordinated.

"Take a stopover if you are traveling for more than six hours -- relax for a day and then continue," said Siegelmann. "Understand and go with your body's natural oscillations."

The findings are reported in the Journal of Biological Rhythms.