

Sponsored Links

<p>no more jet lag Revolutionary patch anti jetlag Reduces 90 % of jet lag Symptoms www.jetlagpatch.com</p>	<p>Windows Time Server Auto-install. Supports NTP4 & SNTP Drivers for GPS and hardware clocks www.hvtefusion.com</p>	<p>Great Night Sleep Very Effective Natural Alternative End Insomnia. Wake Up Rejuvenated! www.Great-Night-Sleep.com</p>	<p>Wireless monitoring Monitor physiological signals in laboratory animals wirelessly www.telemetryresearch.com</p>
--	--	---	---

boston.com News

your connection to **The Boston Globe**

Home **News** A&E Business Sports Travel Your Life Cars Jobs Personals Real Estate

Sign In | [Register Now](#)

Today's Globe Opinion Magazine Education Science NECN Special reports Obituaries

Traffic | Weather

LOCAL NEWS UPDATES From the City & Region staff of The Boston Globe

« [State police lose plastic explosives during drill](#) | [Main](#) | [Locals remember national tragedy: 911](#) »

Thursday, September 7, 2006

Rats can teach humans something about jetlag

By Andrew Ryan, Globe Correspondent

Rats, it seems, not only suffer from jetlag, but the furry rodents can teach frequent human flyers how to skip between time zones without losing too much sleep.

No, the researchers from the University of Massachusetts Amherst did not hopscotch with a pack of rats from Boston, to Tahiti, to Norway, just to see how the animals handled the time changes.

Instead the computer scientists, who published their findings in the current issue of the Journal of Biological Rhythms, spent almost two years building a computer model with data from earlier laboratory studies examining the circadian rhythms, or internal clocks, of rats. The results offered the researchers some insight into how humans handle time change.

"People can control their own jet lag," said Hava Siegelmann, a professor at UMass professor who built the analytical model with professor Tanya Leise.

Humans, like rats, have a series of internal clocks that are influenced by the exposure to light. Each cell and organ in the body has its own clock that is synced with a master clock in the brain, Siegelmann said.

When travelers jump several time zones, it can throw the time mechanism in the body in flux. While a person may be able to force themselves to sleep and reset the master clock in their brain, the individual clocks in the lungs or the liver, for example, can take several days to adjust, leaving the body feeling groggy and jetlagged.

By manipulating the time laboratory rats are exposed to light, scientists have long been able to simulate and study jetlag. Siegelmann and her colleagues took the data from years of lab tests and fed it into a computer. The computer model showed Siegelmann that rats could endure a four hour time jump before their internal clocks jumbled and jetlag set in.

The solution, the research showed, is to travel in steps, giving the body time to acclimatize to a new time zone. If it isn't practical to spread long distance travel over several days, Siegelmann suggested adjusting the time you eat, sleep and exercise at home.

"Before you travel," Siegelmann said, "You have to do some changing of your own schedule."

Posted by the Boston Globe City & Region Desk at [05:53 PM](#)

[Print](#) | [E-mail to a friend](#) | [Permalink](#) | [Subscribe via rss](#) 

WIN A NEW HOUSE

Win cash & prizes:

A grand prize winner will win a new house

Four runners-up will each win \$10,000 in cash

Plus Six home furnishing packages worth \$170,000

Grand prize drawing
September 30th



Mohegan Sun
a world at play

Find Your
Graduating
Class

[More news updates from The Boston Globe](#)

Ads by Google

what's this?

[no more jet lag](#)

Revolutionary patch anti jetlag Reduces 90 % of jet lag Symptoms
www.jetlagpatch.com

[Sleep Apnea Treatments](#)

Find Low-Cost & Safe Products To Treat Sleep Apnea. Free Shipping!
www.NoSnoreZone.com

[Master Clock, Time Sync](#)

Industrial Master Clocks System, Synchronized Clocks
www.alzatex.com

SPONSORED LINKS



[Come visit our newest store in Burlington, MA](#)



[Graduate and Professional Programs](#)



[Competitive rates. Great Rewards. Apply now.](#)



[Announce your wedding in the Globe and Boston.com](#)



[Browse our personals and meet great singles in the Hub](#)



[Search 100's of B&B's, inns, hotels and resorts](#)



I Graduated in:



[feedback](#) | [help](#) | [site map](#) | [globe archives](#) | [rss](#)
© 2005 The New York Times Company

Get a **\$40** Kohl's Gift Card with [Click Here](#)
Globe home delivery at **50% off!**