

Dream a Little Dream

CAN DAYDREAMING HELP YOUR MEMORY?

by Amy Klein



■ Neuroscientists at New York University found that taking mental breaks helps us to recall information later, improving our memory.

“Our data show enhanced functional connectivity between the hippocampus and a portion of the lateral occipital complex (LO) during rest following a task with high subsequent memory compared to pre-task baseline resting connectivity. This effect is not seen during rest following a task with poor subsequent memory. These results demonstrate the importance of post-experience resting brain correlations for memory for recent experiences,” the study found. So if your boss or teacher chastises you for not paying attention by asking, “Are you daydreaming again?,” you can say, “Yes, I am daydreaming. And it’s helping me learn.” **[bw]**

frontal lobes

LOL
by Passion Jun

WE OFTEN SAY LAUGHTER IS THE BEST MEDICINE. BUT IS IT TRUE?

Laughter does have some positive psychological, physiological and immunological impacts on our health, according to scientists. In fact there’s even a term for the study of laughter and laughing and the examination of its effects on the human body: gelotology, from the Greek *gelos*, *geloto*—meaning laugh, laughter, laughing.

In their study “Humor and Laughter May Influence Health” (*Evidence-based Complementary and Alternative Medicine*, December 2007), Mary Payne Bennett and Cecile A. Lengacher report that a sense of humor influences psychological and physiological well-being. Among their findings:

- Laughter leads to increased heart rate, respiratory rate and oxygen consumption, similar to aerobic exercise. After intense laughter, body muscles relax.
- Like other strong emotions, humor seems to activate the sympathetic nervous system (SNS), which shows an increase in such hormones as urinary epinephrine and norepinephrine, but blood pressure remains stable. (Sad emotional stimulus results in higher blood pressure.)

The Brain Gene for Hangovers

by Amy Klein

■ Q: What causes a hangover?
A: Too much drinking.

The real answer, according to new research, is neuropeptides. These brain-signaling molecules which are involved in such brain functions as food intake, learning and memory, are also the source of hangovers, according to “A Differential Role for Neuropeptides in Acute and Chronic Adaptive Responses to Alcohol: Behavioural and Genetic Analysis in *Caenorhabditis elegans*,” a study from the University of Southampton School of Biological Sciences published in *PLoS ONE*, an international, peer-reviewed, open-access, online publication.

The scientists used worms to test alcohol dependence and resistance. “The observation of ethanol-dependent behaviours



in *C. elegans* and *Drosophila* has opened the way for genetic screens. These have identified genetic mutations which confer either hypersensitivity or resistance to ethanol.”

“This research showed the worms displaying effects of the withdrawal of alcohol and enables us to define how alcohol affects signaling in nerve circuits which leads to changes in behavior,” professor and lead researcher Lindy Holden-Dye told the media.

Even though drinking more

when you’re hung over—“the hair of the dog”—seems to relieve some of the hangover effects (on worms and people), the researchers warn that it could cause alcohol dependence.

“Withdrawal is relieved by a low dose of alcohol, a negative reinforcement that contributes to alcohol dependency. This phenomenon of ‘withdrawal relief’ provides evidence of an ethanol-induced adaptation which resets the balance of signalling in neural circuits,” the study found. **[bw]**