New Options for Wellness news

Stanford Linear Accelerator Center

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What's Inside…

Wellness Activities

- ***Pilates:*** Health Improvement Program, Monday 5:15 – 6:15, Wednesday 5:30 – 6-30 12-1:00 PM & Thurs. 5-6:00 PM in Bldg. 27. Questions? 650-725-4406
- ***Cardio Dance***: Taught by HIP instructor on site. Monday/Wednesday - 12:00-12:55 and Tuesday/Thursday 5:15 -6-15pm in Bldg. 27.
- ***Bharata Natyam:*** Exercise your body, mind and spirit through Indian Classical Dance. Contact 650 926 4157 for more information.
- ***Tap Dance Fitness:*** Taught by HIP instructor on site. Class is offered on Tues. 12-1PM in Bldg. 27.
- ***Jazz Dance Fitness:*** Taught by HIP instructor on site. Thursday 12-1 PM in Bldg. 27.
- ***Mid Day Yoga:*** Taught by HIP instructor on site., Friday. 11-12 and 12-1PM in Bldg. 27. Questions? Call Jerrie Thurman 650-725-4406
- ***Stress Counseling:*** Rosan Gomperts & Kevin Carr, Stanford Help Center counselors at SLAC on Tues. 10 -4 PM, Thurs. 8-11AM in the Medical Dept. Call Ext.2281for an apt. at SLAC, or (650) 723-4577 for an apt. at the Stanford campus office.
- ***Massage:*** Mer Baldoza, CMT, is at SLAC medical Tues., Wed, Thurs., and Fri., 3:30 PM. Call Ext. 2009 to schedule an appointment.
- ***Gym:*** weights & equipment in NW corner of Bldg. 34. Call Diane Jenkins to join or for more info Ext. 2215.
- ***Soccer:*** On the front lawn Mon. & Thurs. at noon. Call Rafael Miranda x 4471 or Tu Ly x 4442

Raise A Toast To Healthy Holidays

Celebrate the Season Without Risky Drinking

If you're celebrating the holidays with family and friends, there's a good chance alcohol will be part of the picture. You might like to ring in the New Year with a champagne toast. You may think a drink or two helps take the edge off stressful family gatherings. Or maybe football, friends and beer are one of your favorite parts of winter. People drink for many reasons. But as everyone knows, if you overdo it there'll be little to celebrate the next day.

Why does alcohol feel so good in small amounts but so lousy if you drink too much? Why do some people develop drinking problems while others don't? Scientists have been working hard to learn why people use, abuse and sometime s become addicted to alcohol. Although there's still much to learn, this research has already led to better ways to treat and prevent alcohol-related problems.

Alcohol use is common in this country. About two-thirds of American adults had at least 1 drink during the past year, according to an NIH survey.

Occasional, moderate drinking usually poses few problems. However, more than 1 in 10 adults grapple with **alcohol dependence**, or alcoholism, at some time in their lives. Nearly 1 in 5 struggle with alcohol abuse—

harmful drinking that leads to missing work, neglecting family responsibilities or drinking in dangerous situations, like when driving. Long-term heavy drinking can damage the liver and cause several types of cancer, inflammation of the pancreas and brain damage.

When it comes to holiday drinking, the consequences can range from making an embarrassing remark to being arrested for drunken driving or causing a deadly traffic accident.

"The main problem with holiday drinking is that people are often drinking for longer periods of time than they normally do, and they're staying up later than they normally do. They may not have a good frame of reference for how the alcohol will affect them," says Dr. Dennis Twombly, a scientist at NIH's National Institute on Alcohol Abuse and Alcoholism.

Low levels of alcohol can act as a stimulant. "At low doses, alcohol has effects that the brain perceives as positive and rewarding," Twombly explains. "It can cause euphoria and relieve anxiety and stress." Scientists today are working to discover what parts of the brain are affected by alcohol and how it creates these pleasurable feelings.

At higher levels, alcohol's impact on the brain begins to take a downturn. It can act as a depressant and make you sleepy. Twombly says, "You start to see effects on other areas of the brain like the cerebellum, which causes people to lose their balance and coordination. Their reaction times may become slower. Their ability to speak may become somewhat impaired." Inhibition and judgment are also affected, and emotions can become unstable.

Alcohol quickly moves from your stomach into your bloodstream, where it travels to all your major organs and tissues. Eating before you drink helps slow down this process. When alcohol reaches your liver, it gets broken down and converted to other substances. Liver enzymes, however, can only break down about half of an alcohol-containing beverage per hour.

If you drink alcohol faster than your liver can clear it, the alcohol levels in your blood will climb. Binge drinking in particular—for men, defined as 5 or more drinks over a 2-hour period; for women, 4 or more—can quickly raise your blood alcohol above the legal limit. This excess alcohol continues to circulate throughout the body long after your last drink, affecting your heart, brain and other organs.

How much alcohol is too much? That depends. Alcohol affects everyone differently. Researchers do know that drinking beyond a certain amount increases your risk for alcohol abuse or dependence. The risk increases substantially for men who have more than 4 drinks in a single day or more than 14 per week, and for women who have more than 3 drinks in a day or more than 7 per week. A drink is generally defined as a 12-ounce bottle of beer or wine cooler, a 5-ounce glass of wine, or a 1.5 ounce shot of 80-proof liquor.

Scientists are working to understand why some people develop long-term problems with alcohol. Researchers have long known that alcoholism tends to run in families.In fact, people with an alcoholic parent are about 4 times more likely than others of developing an alcohol use disorder. But, despite their increased risk, many children of alcoholics do not become alcoholic themselves.

"We know from research that roughly half the risk for alcoholism can be explained by some **genes**," Twombly says. Nearly a dozen alcoholism-related genes have already been identified, and many more are expected. "The other half of the risk," he says, "has to do with the environment, including your family and friends, your anxiety and stress levels and even your childhood experiences."

New Options for Wellness (NOW) News is published by the SLAC Medical Department with articles from *NIH News in Health. For more great health information, please visit the NIH News in Health website* (http://newsinhealth.nih.gov/). *NIH News in Health* is a free monthly newsletter bringing you practical health information based on research from the National Institutes of Health (NIH), the nation's medical research agency. SLAC Medical Dept: M. Gherman, M.D, MPH; Manuel Hipol, PA-C; S. Aguilar M.A.; N. Iniguez, M.A.

For holiday revelers, or anyone who drinks to excess in a single evening, the next day is likely to bring great discomfort in the form of a hangover. Painkillers like aspirin may help with headaches, but don't take acetaminophen, a common alternative. The drug can interact with alcohol and damage the liver.

Drinking coffee won't help, either. Twombly explains, "It might help with drowsiness, but it will have no effect whatsoever on how intoxicated you are or how rapidly the alcohol is absorbed or eliminated from the body."

The only real cure for a hangover is time, Twombly says. "Sleeping it off, eating a little and drinking non-alcoholic beverages can help. But you basically have to wait for the alcohol and its by-products to be cleared from your system."

If you get a hangover over the holidays, let it inspire a New Year's resolution—to drink responsibly and moderately in the coming year.

Tips for Coping with Holiday Drinking

If you decide to drink alcohol during a holiday celebration:

- Limit yourself to half of an alcohol-containing drink per hour.
- Don't drink on an empty stomach.
- Alternate alcohol-containing drinks with non-alcoholic ones such as water, soda or juice.
- Make sure you have a designated driver to get everyone home safely after the celebration.

Source: NIH News in Health (http://newsinhealth.nih.gov/)

Lack of Sleep Disrupts Emotional Controls

Most of us know that sleepless nights can unhinge your emotions. Now scientists have a better idea of why this happens. They've shown that lack of sleep strongly activates the brain's emotional centers and weakens the brain circuits that keep your emotions under control.

Scientists know that lack of sleep can interfere with your health in many ways. It can disrupt your learning and memory and your ability to fight disease. But they've understood much less about how sleep and emotions are connected in the brain.

NIH-funded researchers scanned the brains of 26 healthy adults while they looked at 100 images. At first, the images were neutral—like a chair or a bowl of fruit. Later, they became more unpleasant and disturbing—like a dirty toilet bowl, a burn victim or mutilated bodies.

Some participants had a good night's sleep before the brain scan. Others had been kept awake for about 35 hours straight—about how long you'd be up if you stayed awake all night and into the next afternoon without naps.

For everyone, the disturbing pictures led to greater activation of a primitive brain region that triggers strong emotions. But the activation was 60% more intense in the people who were sleep deprived and spread over a larger area.

Lack of sleep had another effect on the brain's circuitry. In the sleep-deprived group, the brain's emotion center seemed to be more strongly connected to a primitive, impulsive brain region and less connected to a region that normally keeps emotions and behaviors in check.

The researchers say their study demonstrates the dangers of not sleeping enough. Their findings suggest that sleep restores the control of our emotional brain circuits and helps us face the next day's challenges and social interactions.

Source: NIH News in Health (http://newsinhealth.nih.gov/)

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