

News in Brief

Popcorn Fans Eat More Whole Grain



People who snack on popcorn may consume more whole grains and less meat than their peers who don't, new research shows.

Fewer than 10 percent of Americans meet current dietary guidelines recommending they eat at least three servings of whole grain foods each day, Dr. Ann C. Grandjean of the Center for Human Nutrition in Omaha, Nebraska and her colleagues note the Journal of the American Dietetic Association. Popcorn is a whole-grain product and whole grains have been tied to a number of health benefits, including reduced heart disease and diabetes risk, they add, Reuters reported.

To investigate the role of popcorn in the US diet, Grandjean and her team looked at data from the National Health and Nutrition Examination Survey for 1999-2002, in which a nationally representative sample of 15,506 Americans reported what they had eaten in the past 24 hours.

Six percent of the study participants had eaten popcorn in the past day. On average, popcorn eaters consumed 38.8 grams (about 12 cups) of popcorn per day.

Compared with people who did not eat popcorn, those that did had roughly 250 percent higher intake of whole grains (2.5 versus 0.70 servings per day) and approximately 22 percent higher intake of fiber (18.1 versus 14.9 grams per day), the researchers found.

Popcorn eaters also had higher overall grain consumption and lower meat consumption.

Unusual Crater on Mars



The Mars Express Spacecraft captured several images of an unusual crater in the Mavors Valles area on Mars with its High-Resolution Stereo Camera (HRSC). The crater is at the end of the long, winding valley, and contains a remarkable dark area.

Scientists are not certain whether the dark colored material could have formed in-situ or if it may have been transported by the wind. Some of the structures shown here are thought to be ice-rich debris flows, and they show some resemblance to block glaciers seen on Earth, Universetoday reported.

Scientists call a region like Mavors Valles 'fretted terrain' because it shows numerous deep and wide labyrinth-like valleys and circular depressions which often show structures formed by flowing liquid on their even floors.

The patches of rock at the center of the depression are thought to be remnants of rock that were detached from the sides of the depression and transported to the center.

This false color image shows the differences in elevation. The image was made using elevation data obtained from an HRSC-derived high-resolution Digital Terrain Model (DTM), which is used to create elevation maps on Mars.

Microsoft Presents TouchWall



Bill Gates has spent some of his precious time at the Microsoft CEO Summit 2008 demonstrating a new multi-touch interface dubbed "TouchWall".

As reported by CNet yesterday, the TouchWall is a six by four feet research prototype similar to the Surface desktop-based multi-touch interface the company has already demonstrated, Washington Post reported.

Where it differs--aside from in orientation--is the price. According to a quote published by CrunchGear from Microsoft's Director of Envisioning Ian Sands the system will be able to turn "almost anything into a multi-touch interface" for "hundreds of dollars"--a far cry from Surface's \$10,000 price tag.

The basic premise involves three lasers operating in the infra-red part of the spectrum and being monitored by an infra-red sensitive camera, with the image being provided by a bog-standard projector.

Vitamin D Deficiency Linked to Breast Cancer



Women deficient in vitamin D at the time of a breast cancer diagnosis are more likely to die or see the tumor spread, a Canadian study published in the United States has shown.

Patients low in vitamin D were 94 percent more likely to see their cancer metastasize and 73 percent more likely to die from it, compared to women with normal levels of vitamin D in their blood, researchers found, AFP said.

And many of the 512 breast cancer patients participating in the research, published in the American Society of Clinical Oncology, had inadequate vitamin D to begin with.

Some 37.5 percent of the women were 'deficient' in vitamin D and 38.5 percent had 'insufficient' levels of the vitamin, which is considered key to bone health.

Sitting Dangerous For Infants

"Do not leave infants less than one month old in a sitting position for a long period of time," suggests Dr. Aurore Cote, because this may place them at increased risk for sudden infant death.

Cote, from McGill University Health Center in Montreal, and colleagues report that deaths among infants in a sitting position accounted for about 3 percent of the infant deaths they reviewed as part of their study, Reuters reported.

"Caution should be used when placing younger infants in car seats and similar sitting devices, whether the infants have been born prematurely or not," Cote and colleagues report in Archives of Disease in Childhood.

"Based on other studies that have looked at the level of oxygen in the blood of infants in a sitting position, as compared to being in bed, I would say one hour at a time should be the maximum," Cote told Reuters Health.



Baseball Cap That Reads Your Mind

It looks like an ordinary baseball cap. But when you put it on, the cap detects and analyzes the electroencephalogram (EEG) signals from your brain.

It can even tell you if you're getting too sleepy when driving based on your brain wave patterns. Similar technology could also allow you to control home electronics such as TVs, computers, and airconditioners, all by just thinking about them, Physorg said.

A team of researchers from Taiwan has designed the new bio-signal monitoring system inside a baseball cap with the goal of making it convenient and easy to use in everyday life. Since the system is wireless and portable, and can process data and provide feedback in real time, it could be useful for a variety of indoor and outdoor applications.

"This study details the design, development and testing of a non-invasive mobile and wireless EEG system for continuously monitoring high-temporal resolution brain dynamics without requiring conductive gels applied to the scalp," researcher Li-Wei Ko from National Chiao-Tung University in Taiwan told PhysOrg.com. "This system has online EEG signal acquisition and real-time signal processing. It can be used in many applications; we just applied it to driving tasks in this work, such as drowsiness."

Cell Phones Pose Risk to Health



Using the handsets just two or three times a day is enough to raise the risk of babies developing hyperactivity and difficulties with conduct.

Women who use cell phones when pregnant are more likely to give birth to children with behavioral problems, according to authoritative research.

According to Independent, a giant study, which surveyed more than 13,000 children, found that using the handsets just two or three times a day was enough to raise the risk of their babies developing hyperactivity and difficulties with conduct, emotions and relationships by the time they reached school age.

And it adds that the likelihood is even greater if the children themselves used the phones before the age of seven.

The results of the study, the first of its kind, have taken the top scientists who conducted it by surprise. But they follow warnings against both pregnant women and children using cell phones by the official Russian radiation watchdog body, which believes that the peril they pose "is not much lower than the risk to children's health from tobacco".

The research--at the universities of California, Los Angeles (UCLA) and Aarhus, Denmark--will carry particular weight because one of its authors has been skeptical that cell phones pose a risk to health.

UCLA's Professor Leeka Kheifets--who serves on a key committee of the International Commission on Non-Ionizing Radiation Protection, the body that sets the guidelines for exposure to cell phones--wrote three and a half years ago that the results of studies on people who used them "to date give no consistent evidence of a causal relationship between

exposure to radiofrequency fields and any adverse health effect".

The scientists questioned the mothers of 13,159 children born in Denmark in the late 1990s about their use of the phones in pregnancy, and their children's use of them and behavior up to the age of seven. As they gave birth before cell phones became universal, about half of the mothers had used them infrequently or not at all, enabling comparisons to be made.

They found that mothers who did use the handsets were 54 percent more likely to have children with behavioral problems and that the likelihood increased with the amount of potential exposure to the radiation.

And when the children also later used the phones they were, overall, 80 percent more likely to suffer from difficulties with behavior. They were 25 percent more at risk from emotional problems, 34 percent more likely to suffer from difficulties relating to their peers, 35 percent more likely to be hyperactive, and 49 percent more prone to problems with conduct.

The scientists say that the results were 'unexpected', and that they knew of no biological mechanisms that could cause them. But when they tried to explain them by accounting for other possible causes--such as smoking during pregnancy, family psychiatric history or socio-economic status--they found that, far from disappearing, the association with cell phone use got even stronger.