

News in Brief

Lip Balms, Glosses May Boost Cancer Risk



Shiny lip balms and glosses may attract ultraviolet rays and increase the risk of skin cancer, warns a dermatologist at Baylor University Medical Center at Dallas.

Dr. Christine Brown noted that protecting your lips from harmful sun rays is as important as using sunscreen to protect your skin. But a recent study found that less than 25 percent of Americans use some form of lip protection, HealthDay wrote.

Lips are more susceptible than skin to aging from chronic sun damage and also more prone to developing serious cancers. "When skin cancer occurs on the lower lip, it has the potential to be much more aggressive and metastasize to surrounding lymph nodes," Brown said in a prepared statement. Shiny balms and glosses don't offer protection. Instead, they attract the sun's rays to the lips.

"What most people don't realize is they're actually increasing light penetration through the lip surface by applying something clear and shiny to them," Brown said.

Women should only wear glossy lipsticks in the sun when they have a layer of sun protection on underneath, dermatologists' advice.

Money, Praise Activate Brain's Reward Center



Your brain may be telling you to be nice because it will pay off—financially or socially, says a new study.

Japanese researchers using functional magnetic resonance imaging (fMRI) on people being enticed with either monetary or reputational rewards for good deeds found that both flip on the striatum, the brain's reward system, in a similar fashion, HealthDay said.

The study is consistent with a long-held social psychological theory that people do nice things to others to gain a good reputation or social approval just like they work for salary. It may provide a pivotal step toward a neural explanation for people's everyday social behaviors.

The researchers' study on 19 people showed that acquiring a good reputation sent reward-related brain areas, notably the striatum, into overdrive. Many of these areas were also activated when monetary rewards were offered, suggesting that the striatum processes the two in a similar manner.

Email Address Can Reveal Your Character



Think twice about the email address you pick: it may speak volumes about your personality. Mitja Back and colleagues at the University of Leipzig in Germany asked a panel of 100 students to guess the personalities of 600 teenagers simply by looking at their email addresses, NewScientist reported.

The panels' guesses agreed most with a personality survey the teenagers had completed when it came to qualities like openness, conscientiousness and narcissism, and diverged most on the trait of extroversion. Addresses that gave away personality often contained full stops, numbers or a name that was obviously not genuine.

"This shows that personality seeps into almost everything we do," says Sam Gosling of the University of Texas.

Isolation Not Necessary For Speciation



Evolutionary biologists, from Charles Darwin onwards, have believed that isolation plays a key role in the origin of species.

Now a study of cave-dwelling salamanders that have evolved into separate species from their surface-dwelling kin despite regularly interbreeding suggests that isolation is not necessary for speciation, NewScientist said.

Cave-dwelling species were thought to be classic examples of how isolation is necessary for speciation. Cave populations isolated underground gradually evolve to lose newly useless structures such as eyes and pigmentation.

But when Matthew Niemiller, an evolutionary biologist at the University of Tennessee in Knoxville, and his colleagues saw hints of hybridisation between Tennessee cave salamanders (*Gyrinophilus palleucus*) and the surface-dwelling spring salamander (*G. porphyriticus*), they decided to take a closer look. The researchers sequenced DNA samples from 109 cave and spring salamanders from 43 locations throughout Tennessee.

The results suggested that the cave salamanders could not have evolved in isolation from the surface species. In fact, the most likely history was one in which spring salamanders regularly interbred with cave salamanders even as the two species were diverging about 2 million years ago.

Probiotics Could Prevent Allergies

Exposing pregnant mothers and infants to probiotic bacteria could help stimulate the growth of the immune system and potentially play a role in preventing allergies, say researchers.

According to NewScientist, probiotic bacteria are living micro-organisms that help prevent the development of allergies, but how they might do this has been a matter of debate. Now, a Finnish team of researchers led by Emma Marschan at the University of Helsinki has investigated the subject, by treating pregnant women with either probiotics, or a placebo.

The team selected 1223 women who either had a history of allergies. Since susceptibility to allergy is partly genetic, this allowed the team to assume that the babies were predisposed to allergies.

The women took probiotic or placebo doses daily from the eighth month of pregnancy. While some women dropped out or did not successfully deliver, 925 infants continued in the study and had the same probiotic or placebo dosage given to them daily for six months after birth. At three, six, and 24 months, paediatricians examined the children without knowing whether they were probiotic- or placebo-treated babies, and recorded any diagnosis of allergy.

Marschan and colleagues found that levels of key proteins associated with tissue inflammation were 50 percent higher on average in the blood of probiotic-treated infants than in the blood of placebo-treated infants.

New Hope for Hearing Impaired Sufferers



Although Jim McGinn of Wheaton is completely deaf in his right ear, he still can hear from that side. A sound processor McGinn wears just behind his right ear converts sound waves into tiny vibrations that move through his skull. The vibrations are detected by his good left ear, so it sounds to McGinn like he can hear from both sides.

According to ScienceDaily, a Loyola University Health System study has found that this system of conducting sound through skull bone is a big boost to people who are deaf in one ear and can't be helped by hearing aids or cochlear implants.

Sixty Loyola patients were asked to compare their hearing before and after getting the system, called Baha. Their ability to hear in a quiet environment improved by 28 percent, the trouble they had with background noise decreased by 33 percent and the difficulties they experienced with reverberating sounds in such settings as churches and lecture halls was reduced by 29 percent.

The only downside: there was a 7 percent increase in the annoyance caused by loud sounds such as fire truck sirens.

"People are hearing much better," said V. Suzanne Jeter, an audiologist at Loyola Oakbrook Terrace Medical Center.

Enough Evidence to Show Cola Bad for Bones



Soda and carbonated beverages is associated with somewhat lower bone mass in children.

While enjoying a cola or two every day might seem harmless enough, recent research suggests that those tasty drinks could be compromising your bone health.

"There is enough evidence that high consumption of soda and carbonated beverages is associated with somewhat lower bone mass in children, and that's a real concern and people should be aware of it," said Dr. Lawrence Raisz, director of the University of Connecticut Center for Osteoporosis.

The exact mechanism behind the problem isn't clear, but experts believe that drinking soda—particularly colas—affects bone density in several ways. One reason may be that people who drink colas are simply less likely to get enough calcium and vitamin D in their diets, because the soda is replacing more nutritious beverages, such as milk or calcium-fortified juice, HealthDay reported.

Or, it could be related to the caffeine in colas, because caffeine has been linked to a higher risk of osteoporosis.

The third possible explanation focuses on one of the ingredients found in colas: phosphoric acid. Phosphoric acid can cause an imbalance in the body as the body seeks to neutralize the acid with calcium. If there isn't enough calcium in the diet, the body will take calcium from the bones.

"Phosphate is in milk, but milk also contains calcium and vi-

tamin D. In soft drinks, there is just phosphoric acid and no calcium. Extra overzealous drinking may lead to a phosphoric acid imbalance, and if there's not enough calcium, the body goes to the bones to restore the balance," explained Dr. Primal Kaur, director of the Osteoporosis Center at Temple University Health Sciences Center in Philadelphia.

Low levels of calcium are associated with the development of osteoporosis, a disease that thins the bones so much that they're at risk of fracture.

More than half of Americans, especially postmenopausal women, have an increased risk of developing osteoporosis, according to the National Osteoporosis Foundation.

In a study that included more than 2,500 people with an average age of about 60, researchers from Tufts University found that cola consumption by women was associated with lower bone mineral density at three hip sites, regardless of age, menopause, total calcium and vitamin D intake. The women reported drinking an average of five carbonated drinks a week, four of which were colas.

There was less of a problem with decaffeinated cola, but the findings were similar for diet soft drinks. The researchers didn't find an association between cola drinking and lower bone mass in men.