

September 2016 NWIA Members' Newsletter

News & Events

28 Sep Good Neighbour Day
 1 Oct World Vegetarian Day
 2 Oct International Day of Non-Violence
 3 Oct World Habitat Day
 5 Oct World Teacher Day
 16 Oct World Food Day
 16 Oct Dictionary Day
 31 Oct Halloween

Upcoming Conferences

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September floral emblem: Aster Flower

PRESIDENT'S MESSAGE

Hello Readers,

As mentioned last month I have been spending time walking in my community. While this has provided the many wellness benefits noted in my previous message, it has also provided me with a longer opportunity to observe

community members' behaviour, especially around the skill of and the outcome of their decisions made about where to park their vehicle.

I live in a cross street between a very busy main arterial road and a busy suburban street feeding consumers into one entrance of a very large shopping centre while leading to a popular western suburb train station. A train station without any park and ride facilities and a shopping centre which has recently introduced paid parking after 3 hours.

These factors add up to many shopping centre workers and train commuters who previously parked in the shopping centre now needing to find a space to leave their car for the day in the surrounding vicinity, including the street in which I reside. The width of this street being as one with that of most suburban ones, meaning that it is as wide as four medium sized cars parked side by side with no room to open doors, and that's if the ones against the gutter are parked close to the gutter. The situation thus, after 7.30am weekdays, is, with vehicles parked on both sides the length of the street (some haphazardly), when drivers confront each other travelling in opposite directions, either one has to pull into a driveway in front of them or back up to find one behind them, to allow the other to pass. The other option is for both to slow to a crawl to pass. This seems hard to do for some as they are either speeding up to travel up the steep hill to the main road or coasting at speed down the hill to the suburban street at the bottom. The only saving grace safety wise here is that there is now only one child living in the street – not that there would be room or opportunity for any children to play cricket in my street today, as we did many years ago – that is if they could tear themselves away from the attraction of modern day technology and actually wanted to play in the street. Oh, by the way this chaotic situation also arises on the days just prior to 'special' days of the year.

But I diverge from my topic – vehicle parking.

My residence is down an easement behind trees and hard to see from the street, although the car port is visible. The narrow easement slopes up sharply to the street from the carport. It is not uncommon on driving out to discover that one car is parked partly (sometimes more than a quarter) across one side of the entrance to the driveway, and occasionally two cars, one on each side. After a period of this inconvenience a number of residents, including myself, made representation to the relevant authorities to have yellow lines (which extend the legal one metre each side of the driveway entrance) painted across our driveways. The hope that drivers would obey this now visual evidence of the law and solve the problem has been dashed – it has made little difference to some people's behaviour. For example, I had a situation last week of a driver pulling up a third way across the driveway just as I was coming up the easement. He exited the car and locked the door but before moving away happened to glance down the driveway to see me stopped part way up. He quickly re- entered the car and drove off –had I not been there I am sure he would have walked off and left the car there.

On the street talking to a neighbour the other day, we witnessed a driver traversing forward and backward between two of the closest driveways in the street desperately hoping, it seems, that the medium sized SUV would miraculously shrink in length, or that the driveways would somehow suddenly move further apart to enable her to park there. This was despite the fact that there was a space large enough to park an army tank behind her on the other side of the driveway at the rear of the car. Was she disabled in a way not to be able to walk the extra 5 metres? No, leaving the car evenly spaced partly across both driveways she moved quite smartly towards wherever she was headed.

Another of some drivers' behaviour is linked to my words of last month regarding community pride. It seems that many of the drivers who park in my street are either not from the local community, or if they are, do not possess any community pride. I am referring to the behaviour of dropping rubbish (drink cartons and wrappers from the local fast food outlets in the shopping centre or on the way from the railway station) on the roadway/footpath in preference to taking it with them in the car to dispose of at home. Worse, is the occasional person who dumps the rubbish already in the car, on the road/footpath, before driving off.

Having read this far you probably consider that I have taken a liberty in using this opportunity to bore you with a rant about what some would term a trivial grievance - one that I could/should have kept to myself.

However what I am attempting to highlight is the need for a discussion/taking action around how the culture of our society has progressed to this point - a point where many members do not consider others in the performance of

their daily tasks, and make decisions to behave in a manner which impacts negatively on the lives of others – my perception. Do these people have a ‘I am better than you so I can do as I please’ attitude? Do they take pleasure in thumbing their nose at the law? Would they take responsibility for their actions, if by parking in this manner, they caused a tragic consequence for one of the more elderly folk in my street who was thus prevented from exiting their residences in an emergency?

Would wellness education in our schools and community re-establish in society a wellness culture of thinking about others and behaving in a manner that cares for others, and living by the code which I was taught those many years ago – “do unto others as you would they do unto you”?

As always the editor of this newsletter is pleased to incorporate your responses to my messages in any forthcoming monthly newsletter (admin@wellnessaustralia.org).

Stay well and park responsibly.



NWIA PRESIDENT

International Wellness Connections

This is the 41st article of a series featuring information from International Wellness Practitioners about the state of Wellness in their country of residence. This and any following International Connections monthly article has appeared in the National Wellness Institute (USA) monthly newsletter, at least 12 months previous to it appearing in this publication.

NWIA extends a sincere thank you to the authors for their contributions to the NWIA newsletter.

The Deplorable State of Public Health in India: How Did We Get Here?

Posted By NWI, Tuesday, September 08, 2015

By Byron Dawson

Wellness Manager at Intermed Family Health Clinics based in Delhi, India

India is one of the oldest continuous civilizations in the world, tracing its roots back to the Indus Valley Civilization more than 5,000 years ago. It is home to a tapestry of religions, traditions, innovations, colours, sights and sounds. Some consider India to be the birthplace of wellness, with its roots in ancient techniques including yoga and Ayurveda (from the Sanskrit for “science of life”). So, how did such a huge country comprised of over 30% vegetarians, and with estimates reaching as high as two thirds of the population living in poverty, ¹ reach the deplorable state of public health it currently finds itself in and what can be done to reverse the alarming trends plaguing the world’s largest democracy?

Before examining the trends, policies, decisions and cultures that led to the current miserable state of wellness in India, it is important to understand exactly how serious the issue has become. Latest studies have estimated that there are over 65 million diabetics currently living in India with prevalence as high as 20% in some industrial cities. This is an increase of 30 percent since just 2010 and India can now claim 18% of all the world’s diabetics. ²Obesity, especially childhood obesity, is also a huge health issue in India. India is now ranked third in the world behind USA and China for cases of obesity and childhood obesity has reached as high as 29%. ⁵ Further demonstrating the Indian lack of focus on prevention and substandard medical protocols, some Gastric Bypass surgeries have been performed on children as young as four years old. ⁶ Heart diseases disproportionately affects South Asians due to a genetic mutation, but the typical Indian lifestyle of sedentary living, high-fat eating, smoking and stress also contribute to

the epidemic. Over half of the heart disease patients in the world are Indian and half of all heart attacks strike Indian men before the age of 50.⁷ Comorbidities are often found in patients who have waited too long to diagnose and manage their chronic conditions.

India's history is typically divided into four distinct periods; prehistorically (from the first appearance of anatomically modern humans some 75,000 years ago until about 200 B.C.E.), the classical period (spanning from about 200 B.C.E. until 1200 C.E.), Colonialism (from about 1850 until 1947) and independence (1947 until today). Little is known about healthcare in prehistorically India. Ayurveda was the main system of healthcare and most health care was done in the home by Rishis or seers. Similarly little is recorded regarding the classical period of public health in India, save that it was heavily influenced first by texts and teachings of the Hindu faith, then by the Muslim teachings brought to India by Arabian travellers in the 7th century C.E. Healthcare in the Colonial period was largely influenced by the practices of the occupying British, including hygiene, disease prevention and training and research. Efforts were largely aimed at keeping the colonizers healthy, but the Indian public was able to gain from this knowledge.³ Many institutions of learning and research were also established which benefitted public health in innumerable ways.

The period of India's independence, spanning the last 60 some years, has seen a host of success stories and a stunning amount of failures. The Bhore Committee was the first effort in earnest by the Indian government to provide public healthcare for its citizens. The committee, formed in 1943, established several recommendations including the integration of preventative and curative medicine, the establishment of a network of hospitals for public use, and training for doctors and medical staff in preventive and social medicine.³ Some of these recommendations were adopted and some were not. The next half century of Indian healthcare development would be marked by similar government-appointed groups making series of recommendations which would be intermittently put into practice. Life expectancy in India increased from 27 to 70 from the end of British rule to today, but most of this progress can be explained away by the gains made in medical technology and pharmaceuticals, including vaccines, over that time period.⁴

Today in India, public health is in a miserable state, especially for those of lower socioeconomic strata. There are several reasons other than a spotty history of government policies to explain this epidemic. Among them are a low investment on healthcare, a lack of focus on disease prevention, and unequal access to healthcare.

Possibly the biggest obstacle to India's citizens receiving healthcare on par with world standards is the lack of focus and investment on healthcare. India spends less than 4% of its GDP on healthcare, as compared to a world average of about 9% and 17% in the USA. The average Indian spends about \$157 US on healthcare in a year as opposed to the worldwide average of about \$3500 US.⁸ Adding to the public's lack of investment is the government's ignoring of the issue. At the end of 2014, India's government decided to slash the already insufficient public health budget by about 20% (from 6 billion USD to 5 billion USD) due to lack of funds.⁹ In a nation where the government elected to provide for the people is unwilling to spend on healthcare, it is easy to understand why Indians do not prioritize their own health.

India's healthcare system has always focused on treating acute conditions. In fact, only 2% of Indians focus on preventative medicine in any way at all.¹⁰ Virtually all chronic medical conditions become more expensive and difficult to treat over time, and the economic system is already so strained that many people may lose their opportunity for optimal health before they even realize they are at risk. The majority of Indians with hypertension are unaware of their condition and about a third of diabetics are similarly undiagnosed.

Many demographic factors influence the average Indian's access to healthcare, chief of which is geographical location. Healthcare in India is a vastly different experience for urban dwellers as compared to rural habitants. Over 70% of India's population still resides in rural settings. More than 50% of these rural dwellers have no access at all to hospitals and of those that do have access, only one in five seek medical attention for illnesses.¹¹ When the people are so poor that they must rely on government assistance for healthcare but the government refuses to provide assistance, it is easy to see how public health can quickly spiral out of control.

Although India has historically been plagued by a lack of government investment in health and no focus on preventative healthcare, there are several organizations and companies currently trying to reverse these trends. Most companies parading under the banner of “wellness” today are luxury spas and retreats, vendors of beauty products or sellers of dubious weight loss pills, diets, and strategies. There are, however, a few companies attempting to bring medical wellness programs to India. One of these companies is WellMed. WellMed is a subsidiary of Intermed, a chain of Family Health Clinics based in Delhi, India. WellMed’s goal is to bring true evidence-based results-oriented wellness to both India’s families and corporations. With tools such as health risk assessments, food and exercise diaries, individual and group coaching sessions and corporate talks, lectures and events, WellMed is attempting to bring the Indian standard of care in line with the developed world in general. It has been an uphill climb, but medical wellness is starting to gain some traction.

As Americans we have become increasingly health conscious as we learn more about the world around us and how it affects us in myriad ways. It is clear that before any sea change can occur in India, an education of general public must precede it. The issues of lack of awareness, unequal access and poverty must be addressed. Only then can India begin to move forward as a strong and healthy nation.



Byron Dawson is the Wellness Manager at Intermed Family Health Clinics based in Delhi, India. Intermed’s fully integrated medical wellness program is called WellMed, which Byron created and manages. Byron is a Certified Wellness Coach with credentials from WellCoaches of America and The Cooper Institute. He recently presented at the 40th annual National Wellness Conference in Minneapolis on the topic of Medical Wellness in India. He earned a BA Degree in Psychology from The University of Texas in 2006 and an MBA from The University of Dallas in 2008.

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Quote for the month



Dog Brains Process Both What We Say And How We Say It

The first study to investigate how dog brains process speech shows that our best friends in the animal kingdom care about both what we say and how we say it. Dogs, like people, use the left hemisphere to process words, a right hemisphere brain region to process intonation, and praising activates dog's reward center only when both words and intonation match, according to a study in *Science*.

The findings of a Hungarian research group suggest that the neural mechanisms to process words evolved much earlier than previously thought, and they are not unique to the human brain, the researchers say. It shows that if an environment is rich in speech, as is the case of family dogs, word meaning representations can arise in the brain, even in a non-primate mammal that is not able to speak.

"During speech processing, there is a well-known distribution of labor in the human brain. It is mainly the left hemisphere's job to process word meaning, and the right hemisphere's job to process intonation. The human brain not only separately analyzes what we say and how we say it, but also integrates the two types of information, to arrive at a unified meaning. Our findings suggest that dogs can also do all that, and they use very similar brain mechanisms," said lead researcher Attila Andics of Department of Ethology and MTA-ELTE Comparative Ethology Research Group at Eötvös Loránd University, Budapest.

"We trained thirteen dogs to lay completely motionless in an fMRI brain scanner. fMRI provides a non-invasive, harmless way of measurement that dogs enjoy to take part of," said Márta Gácsi, ethologist, the developer of the training method, author of the study. "We measured dogs' brain activity as they listened to their trainer's speech," explains Anna Gábor, PhD student, author of the study. "Dogs heard praise words in praising intonation, praise words in neutral intonation, and also neutral conjunction words, meaningless to them, in praising and neutral intonations. We looked for brain regions that differentiated between meaningful and meaningless words, or between praising and non-praising intonations."

The brain activation images showed that dogs prefer to use their left hemisphere to process meaningful but not meaningless words. This left bias was present for weak and strong levels of brain activations as well, and it was independent of intonation. Dogs activate a right hemisphere brain area to tell apart praising and non-praising intonation. This was the same auditory brain region that this group of researchers previously found in dogs for processing emotional non-speech sounds from both dogs and humans, suggesting that intonation processing mechanisms are not specific to speech.

Andics and colleagues also noted that praise activated dogs' reward center - the brain region which responds to all sorts of pleasurable stimuli, like food, sex, being petted or even nice music in humans. Importantly, the reward center was active only when dogs heard praise words in praising intonation. "It shows that for dogs, a nice praise can very well work as a reward, but it works best if both words and intonation match. So dogs not only tell apart what we say and how we say it, but they can also combine the two, for a correct interpretation of what those words really meant. Again, this is very similar to what human brains do," Andics said.

This study is the first step to understanding how dogs interpret human speech, and these results can also help to make communication and cooperation between dogs and humans even more efficient, the researchers say.

These findings also have important conclusions about humans. "Our research sheds new light on the emergence of words during language evolution. What makes words uniquely human is not a special neural capacity, but our invention of using them," Andics explains.

<https://familydogproject.elte.hu/dogs-process-both-vocabulary-and-intonation-of-human-speech/>



Single Women With Personal Wealth More Likely To Become Entrepreneurs Than Men

A new economic study by the University of Stirling and Royal Holloway, University of London, has found evidence that there is a big difference in cash flow problems faced by men and women in the UK. They found single women face more severe constraints to their incomings and outgoings, but that those single women whose personal wealth increases unexpectedly through an inheritance are more likely to start a new business than their male counterparts.

It is difficult for an aspiring entrepreneur, or current business owner, to obtain the funds necessary to start a business or expand an existing one. Labour Force Surveys show that from 2009 to 2014, the proportion of men in self-employment increased by 6 per cent. Over the same period, the proportion of self-employed females jumped by a remarkable 22 per cent.

Despite the relatively large growth rate in self-employed females, obstacles for women that want to engage in entrepreneurial activities still remain. In the area of small business operations, one of the main problems many entrepreneurs face is how to maintain a flow of cash through the business.

Using previously unexplored data from the Wealth and Assets Survey, researchers found evidence that there are substantial differences in liquidity between the genders in the UK. This is based on the finding that the willingness to start a new business increases with personal wealth, and this relationship is stronger amongst women than men. The relationship is strongest amongst single women.

Researchers found that £1,000 more money in the bank would lead to an 8.5 per cent increase in the probability a single woman starts a new business.

Researcher Tanya Wilson, Early Career Fellow in the Division of Economics at the University of Stirling, said: "There are several possible explanations as to why liquidity constraints are most severe for single women. It could be that single women have less collateral necessary for securing a loan. There may be gender discrimination in the granting of credit. It is also possible that single women are more risk averse than others and choose not to borrow money even when borrowed funds would be forthcoming.

"A glass ceiling may emerge even in self-employment when women suffer relatively more from liquidity constraints than their male counterparts.

"If lack of collateral is the main obstacle preventing a single woman from starting a new business, or expanding an existing one, then a new private initiative or public policy that helps channel sufficient collateral to liquidity-constrained single women would be of great economic and social value. Public policy programmes that encourage business start-ups do currently exist, but they are generally too restrictive to affect a substantial proportion of single women."

The full research paper can be found [here](#).

<http://www.stir.ac.uk/news/2016/08/single-women-with-personal-wealth-more-likely-to-become-entrepreneurs-than-men/>



'Morning People' Self-Sabotage Less At Night, 'Night Owls' Less At Sunrise

A study by psychological researchers at Indiana University shows that people are more likely to undermine their performance at stressful tasks when they're operating at "peak capacity" based on their preferred time of the day.

The seemingly counterintuitive results, [recently reported in the Journal of Experimental Social Psychology](#), are based on an investigation into the connection between people's circadian rhythm and risk of "self-handicapping," or self-sabotage. But rather than trying to protect against possible failure more at "off-peak" times, the study found, people actually engage in this behavior more at their peak times.

In other words, "morning people," who reported greater alertness at sunrise, self-handicapped more in the morning. "Night owls," who reported greater alertness at sunset, self-handicapped more in the evening.

Self-handicapping is defined by psychologists as when an individual seeks to protect their ego against potential failure in advance by creating circumstances -- real or imagined -- that harm their ability to carry out a stressful task. A classic example is failing to study or staying out too late the night before an important test or job interview.

The behavior also extends to mere claims of debilitating circumstances, such as imagined illness, fatigue or

stress. Other studies have linked self-handicapping to other self-destructive behaviors, such as aggression, overeating and drug or alcohol addiction.

The study also found that people chronically prone to making excuses reported the same stress levels at "off-peak" hours as peers who do not engage in this behavior. Only at peak hours did these individuals report higher levels of stress as an excuse for poor performance.

"What this study tells us is that self-handicapping requires thought and planning," said Ed Hirt, professor in the IU Bloomington College of Arts and Sciences' Department of Psychological and Brain Sciences and an author on the study. "People who are feeling uncertain about themselves and start to fear that they might fail are more likely to identify potential excuses and self-handicap when they're at their peak than when they're not."

"When an individual's positive self-views are threatened, they may lash out against the source of the threat, compare themselves to others worse off than themselves, or engage in self-destructive actions, such as substance abuse," added Julie Eyink, a graduate student in Hirt's lab and lead author on the study. "Unfortunately, it's not uncommon to get caught in a negative spiral, in which self-handicapping leads to lower self-esteem and higher failure beliefs, which prompts more self-handicapping."

To conduct the study, IU researchers administered intelligence tests to 237 students (98 men and 139 women), half of whom were told that stress had been found to affect performance on the test and half of whom were told that stress should not affect the result. The tests were given at either 8 a.m. or 8 p.m.

The volunteers had been previously categorized as "night people" or "morning people" based upon a survey shown to accurately predict circadian rhythm. Study participants were also assessed before the exam for their tendency to self-sabotage through questions about their stress levels.

The tests were given two weeks after the morning or night preference assessments, and participants were unaware that circadian rhythm would be a factor in the study. The individuals who administered the tests were unaware who had been labeled "morning people" or "night owls."

The results were that people who scored higher in terms of risk for self-sabotage reported greater stress levels at hours of peak performance.

A high or low tendency to self-sabotage did not make a difference at off-peak hours, however. Both groups reported the same stress levels at these times.

"The results seem counterintuitive, but what they really show is clear evidence that self-handicapping is a resource-demanding strategy," Eyink said. "Only people who had their peak cognitive resources were able to engage in self-handicapping."

Based solely on the study, she said, people who want to avoid self-sabotage might conclude that they should engage in stressful tasks at off-peak times. But she also warns that such a strategy would require carrying out tasks at a time when a person lacks all the cognitive tools required to achieve top performance.

"Ultimately," she said, "I would advise that working to avoid self-handicapping -- through actions such as healthful practices, seeking help or counseling -- is the best strategy."

Other authors on the paper were Eric Galante and Kristin S. Hendrix, an undergraduate student and Ph.D. student at IU Bloomington, respectively, at the time of the study.

This study was supported in part by the National Science Foundation.

<http://news.indiana.edu/releases/iu/2016/08/self-sabotage-study.shtml>



High Seas Fisheries Management Could Recoup Losses Due To Climate Change

research finds.

Closing the high seas to fishing could increase fish catches in coastal waters by 10 per cent, helping people, especially the most vulnerable, cope with the expected losses of fish due to climate change, new UBC

“Many important fish stocks live in both the high seas and coastal waters. Effective management of high seas fisheries could benefit coastal waters in terms of productivity and help reduce climate change impacts,” said lead author William Cheung, associate professor and director of science of the Nippon Foundation-Nereus Program at UBC’s Institute for the Oceans and Fisheries.

The high seas are areas of ocean outside the jurisdiction of any country and cover nearly two-thirds of the ocean’s surface.

Researchers used computer models to predict catches of 30 important fish stocks that live in both the high seas and coastal waters in 2050 under three different management scenarios: closing the high seas to fishing, international cooperation to manage fishing, and maintaining the status quo.

They found that both strengthening governance and closing the high seas to fishing increased the resilience of coastal countries to climate change, especially in tropical countries where there is a high dependence on fisheries for food and livelihood.

“The scenarios of closing the high seas may greatly reduce the issue of inequity of benefits and impacts among different countries under climate change,” said co-author Vicky Lam, a postdoctoral fellow at UBC’s Institute for the Oceans and Fisheries.

Climate change is expected to disproportionately impact countries in the South Pacific, Indo-Pacific, West African coast and west coast of central America. Previous UBC research shows that if carbon dioxide levels continue to rise on the current trajectory and the Earth warms, these countries could face a 30 per cent decrease in fish stocks as fish migrate to cooler waters.

“The high seas can serve as a fish bank of the world by providing the insurance needed to make the whole global ocean more resilient,” said paper co-author Rashid Sumaila, professor at UBC’s Institute for the Oceans and Fisheries and director of OceanCanada, one of the research funders. “By closing the high seas to fishing or seriously improving its management, the high seas can help us mitigate and adapt to the effects of climate change on marine ecosystems.”

The study was published today in [*Fish and Fisheries*](#).

About the Nippon Foundation Nereus Program

The Nereus Program, collaboration between the Nippon Foundation and the University of British Columbia Institute for the Oceans and Fisheries, has engaged in innovative, interdisciplinary ocean research since its inception in 2011. The program is currently a global partnership of six leading marine science institutes with the aim of undertaking research that advances our comprehensive understandings of the global ocean systems across the natural and social sciences, from oceanography and marine ecology to fisheries economics and impacts on coastal communities. Visit

nerusprogram.org for more information.

This research was supported by the Nippon Foundation, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanity Research Council of Canada through the Ocean Canada partnership grant project.

<http://news.ubc.ca/2016/08/30/high-seas-fisheries-management-could-recoup-losses-due-to-climate-change/>



Friends Are No Better Than Strangers In Accurately Identifying Emotion In Emails

Reliance on friendship and context to interpret emotion in email is ineffective

"OMG I just LOVE pizza." Is this statement sarcastic? Is it heartfelt? As our everyday communication is increasingly text-driven, inferring emotion from messages is an important skill. If the receiver of the message is a friend, they should be able to understand the sender's emotion better than a complete stranger. But a recent study by researchers at Chatham University found that friends are no better at interpreting correct emotional intent in e-mails than complete strangers.

Monica A. Riordan and Lauren A. Trichtinger (Chatham University) published their findings in the journal *Human Communication Research*. The researchers conducted three studies to find out the effect of contextual information on the confidence and accuracy of affective communication via e-mail.

In the first two studies, writers wrote two e-mails, indicating the presence or absence of eight different emotions in each e-mail. One e-mail was based on a predetermined scenario, and the other freely written. These e-mails were then read by strangers, who rated each e-mail for those same eight emotions.

The third study tweaked the procedure to test the effect of relationship. Writers wrote two e-mails (one based on a scenario, the other freely written) and indicated whether eight different emotions were present in each e-mail they wrote. Writers then sent these two e-mails to both friends and strangers, each of whom rated the e-mail for the same eight emotions, and then wrote response e-mails.

The researchers found that writers are more confident their friends can correctly interpret their e-mails than strangers- and readers are more confident in interpreting e-mails from friends than strangers, as well. In fact, everyone was highly confident in their e-mail writing and reading abilities. However, this confidence had no relationship with actual accuracy, suggesting people are poor judges of their affect-detection skills. They also found that verbal and nonverbal cues, like emoticons, all caps, or repeated exclamation points did not have a positive effect on accuracy.

Past research has sought to determine how we communicate our emotions in environments from which facial expressions, vocal intonation, body language, and other cues are missing. But many of the studies have flaws in that they are based on artificial stimuli that third parties are asked to rate. It is difficult to determine whether nonverbal or verbal cues are substitutes for emotion without examining the communication as a whole.

"As e-mail, text messaging, and other forms of computer-mediated communication become more dominant forms of interaction, the communication of affect becomes more difficult, primarily because facial expressions, gestures, vocal intonation, and other forms of expressing emotion are lost," said Riordan. "It is clear from this study that readers can determine that we are angry, but cannot determine HOW angry. The loss of this subtlety could lead to consequences in many forms-- especially in our relationships, where the difference between annoyance and rage can be vast, and a simple misinterpretation of an intended emotion can lead to a drastic alteration in that emotion."

"Overconfidence at the Keyboard: Confidence and Accuracy in Interpreting Affect in E-Mail Exchanges," by Monica A. Riordan and Lauren A. Trichtinger; *Human Communication Research*, DOI:10.1111/hcre.12093.

About ICA

The International Communication Association is an academic association for scholars interested in the study, teaching, and application of all aspects of human and mediated communication. With more than 4,300 members in 80 countries, ICA includes 31 Divisions and Interest Groups and publishes the *Communication Yearbook* and five major, peer-reviewed journals: *Journal of Communication*, *Communication Theory*, *Human Communication Research*, *Communication, Culture & Critique*, and the *Journal of Computer-Mediated Communication*. For more information, visit <http://www.icahdq.org>.



Miracle Fruit's Flowering, Fruiting Behaviors Revealed

Research enhances understanding of rare fruit that makes sour food taste sweet

Miracle berry (*Synsepalum dulcificum*), also known as miracle fruit, is a valuable horticultural species indigenous to West Africa. The authors of a study in the June 2016 issue of *HortScience* say that miracle fruit is "a very promising species" that has not been adequately studied. "Miracle fruit is a rare fruit crop with high economical value in the medical and food industry," they explained. The fleshy pulp of the miracle fruit contains miraculin, a glycoprotein that has an extraordinary effect on taste buds in the tongue: it makes sour or acidic food taste sweet. The authors said that miraculin could "possibly help diabetics to eat sweet food without taking in sugar," and they noted that the fruit has already been investigated as for its potential as a natural food sweetener.

Surprisingly, very little is known about the species in terms of how miracle fruit's flowers grow and develop. Researchers Chen Xingway, Thohirah Lee Abdullah, Sima Taheri, Nur Ashikin Psyquay Abdullah, and Siti Aishah Hassan used microscopic techniques to identify flower morphology and development of miracle fruit. Their report contains in-depth descriptions of flower and fruit developmental stages. "Our results could improve understanding of pollination ecology and methods to manipulate flowering and fruit development," they explained.

Analyses indicated that a miracle fruit flower took 100 days to develop from reproductive meristem to full anthesis. The scientists found that the flower development could be divided into six distinct stages based on size and appearance of the flower bud.

Heavy fruit dropping was observed at 40 to 60 days after anthesis, which contributed to low fruiting percentage. The fruit with persistent style developed and ripened 90 days after anthesis. "Successful pollination coupled with proper nutrient and water management could decrease premature fruit drop and obtain greater miracle fruit yield," the authors said.

"From the observations on the flowering behavior and flower architecture in this study, miracle fruit is suggested to be insect-pollinated and has features that prevent self-fertilization," the scientists noted. They recommended further research on pollination ecology be performed to identify the pollinator for miracle fruit.

The complete study and abstract are available on the ASHS HortScience electronic journal web site: <http://hortsci.ashspublications.org/content/51/6/697.abstract>

Founded in 1903, the American Society for Horticultural Science (ASHS) is the largest organization dedicated to



Standing Up for Weight Management

Newly released study suggests regular use of sit-stand desks can be beneficial to maintaining weight levels when combined with other low-intensity activities

Alternating positions between standing and sitting while performing deskwork could make the difference in whether the thin red needle in your bathroom scale tilts to the left or the right of your goal weight.

A new study from the University of Pittsburgh's School of Education examined the potential weight management benefits of sit-stand desks. Pitt's researchers found that regular use of a height-adjustable workstation, when combined with other low-intensity activities, is an effective measure for maintaining weight for most people.

The study found that if an individual were to stand for half of one hour—30 minutes—they could burn 5.5 more calories than they would have by sitting for that entire hour. Standing for the full hour burned an extra 8.2 calories. Switching evenly between sitting and standing over the course of an eight-hour day—four hours sitting and four hours standing—could result in an energy expenditure of as much as 56.9 calories for men and 48.3 calories for women.

Pitt's researchers acknowledge that the actual caloric expenditure from using a sit-stand desk in isolation is modest. Within their research, they point to separate studies that suggest small increases in daily physical activity, just 100 calories per day, would be enough to prevent weight gain in most individuals. When aligned with such advice, researchers believe regular usage of sit-stand desks could be one of many small energy expenditure changes in the work environment that would help office workers to maintain their weight.

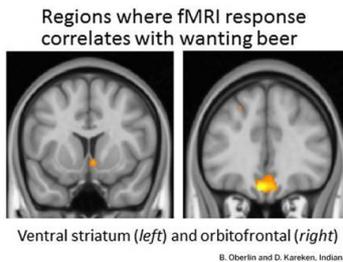
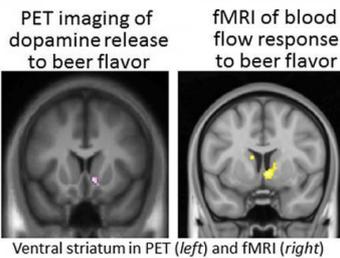
“Sit-stand desks are an easy way to get a boost in energy expenditure that fits into America's current office culture. By combining the act of standing for part of the day with other casual activities—say, opting to walk to the printer farthest away from your work area or choosing to use the restroom that's located a couple of flights of stairs away—you can achieve a meaningful amount of extra energy expenditure while at work that could aid in weight control,” said Bethany Barone Gibbs, the study's lead researcher and an assistant professor of health and physical activity within Pitt's School of Education. “It is important that we understand standing at work isn't going to burn as many calories as going for a brisk walk or a long run. However, our findings add to a growing field of research that shows the benefits of sit-stand desks, including increases in productivity and energy, and lower pain, blood sugar, and potentially blood pressure.”

For the study, subjects performed standardized deskwork at different positions for three separate one-hour sessions: 60 minutes sitting, 60 minutes standing, and 60 minutes spent alternating between sitting and standing for 30 minutes each. Standardized deskwork included copying articles from a magazine and completing worksheets consisting of rudimentary reading comprehension and math exercises. Subjects completed experimental sessions in a random order, at least 48 hours apart, and within four weeks. Participation consisted of 18 individuals—nine men and nine women—between the ages of 22-57. All participants had earned at least a high school degree and worked sedentary office jobs with an average daily sitting time of 8.8 hours.

John M. Jakicic, chair of the University of Pittsburgh School of Education's Department of Health and Physical Activity and director of the University's Physical Activity and Weight Management Research Center, also played a key role in the production of the study. Additional researchers included Pitt doctoral students Robert J. Kowalsky, Sophy J. Perdomo, and Matthew Grier.

The study “Energy expenditure of deskwork when sitting, standing or alternating positions,” is currently available online in *Occupational Medicine*.

<http://www.news.pitt.edu/news/standing-weight-management>



Addiction Cravings May Get Their Start Deep In The Right Side Of The Brain

If you really want a drink right now, the source of your craving may be a pea-sized structure deep inside the right side of your brain, according to scientists at the Indiana University School of Medicine.

Using two different kinds of advanced brain imaging techniques (PET and fMRI); the researchers compared the results of giving beer drinkers a taste of their favorite beer versus a sports drink.

After tasting the beer the participants reported increased desire to drink beer, whereas the sports drink did not provoke as much desire for beer. The brain scans also showed that the beer flavor induced more activity in both frontal lobes and in the right ventral striatum of the subjects' brains than did the sports drink.

More specifically, both methods of brain imaging showed increased activity in the right ventral striatum, a deep structure inside the brain that is linked to motivated behavior and reward. The researchers previously showed that beer flavor triggered dopamine release; the addition of fMRI showed that craving for alcohol correlated with frontal as well as right ventral striatum activation. The study was published recently in the journal *Alcoholism: Clinical and Experimental Research*.

In an earlier study of 49 men, the research team, led by David A. Kareken, Ph.D., professor of neurology at the IU School of Medicine and the deputy director of the Indiana Alcohol Research Center, found that just the taste of beer, without any intoxicating effects of alcohol, was enough to cause the release of dopamine, a brain neurotransmitter. Much research has linked dopamine to consumption of drugs of abuse.

The new study was conducted with 28 beer drinkers who had participated in the first study, who then underwent functional magnetic resonance imaging - fMRI scans - during the separate beer and Gatorade tastings.

"We believe this is the first study to use multiple brain imaging modalities to reveal both increased blood oxygen levels and dopamine activity in response to the taste of an alcoholic beverage," said Brandon G. Oberlin, Ph.D., assistant research professor of neurology and first author of the paper. "The combination of these two techniques in the same subjects strengthens the evidence that these effects may be strongest in the right ventral striatum.

"Our results indicate that the right ventral striatum may be an especially important area for addiction research," Dr. Oberlin said.

In addition to Drs. Oberlin and Kareken, investigators contributing to the research were Mario Dziedzic, Jaroslaw Harezlak, Maria A. Kudela, Stella M. Tran, Christina M. Soeurt and Karmen K. Yoder of the IU School of Medicine.

The research was supported by grants from the National Institutes of Health, R01AA017661-01A1S1, T32AA007462 and K99AA023296, as well as the Indiana Alcohol Research Center (P60AA07611), the Indiana Clinical and Translational Sciences Institute Clinical Research Center, UL1TR001108, NIH, National Center for Advancing Translational Sciences, Clinical and Translational Sciences Award. <http://news.indiana.edu/all-iub-news/index.shtml>



Recipe of the Month: Mixed Bean Salad

By Mayo Clinic Staff

Dietitian's tip:

Beans are a good way to add fiber to your diet, especially soluble fiber. Generally, 1 cup of cooked beans provides 9 to 13 grams of fiber. The soluble fiber can help lower blood cholesterol. Beans are also high in protein, complex carbohydrates and iron.

Serves 8

Ingredients

- 1 can (15 ounces) unsalted green beans, rinsed and drained
- 1 can (15 ounces) unsalted wax beans, rinsed and drained
- 1 can (15 ounces) unsalted kidney beans, rinsed and drained
- 1 can (15 ounces) unsalted garbanzo beans, rinsed and drained
- 1/4 cup chopped white onion
- 1/4 cup orange juice
- 1/2 cup cider vinegar
- Sugar substitute, if desired

Directions

In a large bowl, combine the beans and onion. Stir gently to mix evenly.

In a separate bowl, whisk together the orange juice and vinegar. Add sugar substitute for desired sweetness.

Pour the orange juice mixture over the bean mixture. Stir to coat evenly. Let stand 30 minutes before serving.

Nutritional analysis per serving

Serving size :3/4 cup (generous)

Total fat 2 g

Calories 126

Protein 7 g

Cholesterol 0 mg

Total carbohydrate 21 g

Dietary fiber 6 g

Monounsaturated fat Trace

Saturated fat Trace

Added sugars 0 g

Sodium 165 mg

Trans fat 0 g

<http://www.mayoclinic.org/healthy-lifestyle/recipes/mixed-bean-salad/rcp-20049682>