

January 2016 NWIA Members' Newsletter

Events

1 Jan New Year's Day
26 Jan Australia Day

Upcoming Conferences

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Gentle Reminder

Have you received a renewal notice via email?

Member's renewals for 2016 membership are now due.

We as an organization strongly appreciate and value your membership – one which has greatly contributed to the support of raise awareness about wellness, provide a collective voice on Wellness issues etc.

The continuation of delivery of the newsletter is dependent on your on-going paid-up membership.

Your continued support is much appreciated.



January Floral Emblem : Carnation

PRESIDENT'S MESSAGE

Welcome to the New Year,

Are you a 'New Year Resolutioner' or a 'New Year Non-Resolutioner'?

A New Year's resolution is a tradition, most common in the West but found around the world, in which a person makes a promise on New Year's Eve to make certain changes or self-improvements in the year ahead. It is believed that the Babylonians were the first to make New Year's resolutions, and people all over the world have been breaking them ever since!

"Some 4,000 years ago, Babylonians rang in their new year with an 11-day festival in March, and **ancient Egyptians** celebrated the advent of their new calendar during the Nile River's annual **flood**. By 46 B.C., Roman emperor Julius Caesar had moved the first day of the year to Jan. 1 in honor of the Roman god of beginnings, Janus, an idea that took some time to catch on. However, in 1582, Pope Gregory XIII brought the Jan. 1 New Year back in vogue with the Gregorian calendar -- a concept that persists today." ('Why do people make New Year's resolutions? A Historical Look at New Year's Resolutions' by **Laurie L. Dove** <http://people.howstuffworks.com/culture-traditions/holidays-other/why-make-new-years-resolutions1.htm>)

"In the Medieval era, knights took the "peacock vow" (les voeux du paon) at the end of the year to re-affirm their commitment to chivalry, while early Christians believed the first day of the new year should be spent reflecting on past mistakes and resolving to improve oneself in the new year. At watchnight services, many Christians prepare for the year ahead by praying and making these resolutions.

There are other religious parallels to this tradition. During Judaism's New Year, Rosh Hashanah, through the High Holidays and culminating in Yom Kippur (the Day of Atonement), one is to reflect upon one's wrongdoings over the year and both seek and offer forgiveness. The concept, regardless of creed, is to reflect upon self-improvement annually.

Today, the only thing that has changed (for some) is that, rather than making promises to gods, we make promises to ourselves. And since we cannot possibly rain thunder and lightning on ourselves as punishment for not keeping our promises, it need not surprise us that sooner or later we fail in staying true to our words". ('Ancient History of New Year's Resolutions' by April Holloway, Jan 1 2014 <http://www.ancient-origins.net/myths-legends-news-general/ancient-history-new-year-s-resolutions-001185#ixzz3vZTvXGmV>)

A 2007 study by Richard Wiseman from the University of Bristol involving 3,000 people showed that 88% of those who set New Year resolutions failed, despite the fact that 52% of the study's participants were confident of success at the beginning. Another study published in the Journal of Clinical Psychology reported that within 6 months only 46% of resolvers were successful at self-improvement, but that was better than the 4% of non-resolvers who had been successful at making self improvements during that time.

But with all the practice we get (each year older equals another year of practice for most) in making resolutions, why aren't we doing better at keeping them. As you are no doubt aware theories abound with one common theme being 'we make them to general' Also the most common ones such as 'losing weight' and 'stopping smoking' or 'getting more exercise' sound boring and involve a lot of self-denial. People also find that they are 'easy' to be 'non-compliant' with when they are stressed out.

So Patrick Kiger suggests making some positive and creative resolutions instead this year. He lists 10 that he feels a person may have a better chance of keeping (<http://people.howstuffworks.com/culture-traditions/holidays-other/10-new-years-resolutions-to-keep.htm#page=1>):

10/ Trust your Instincts – perhaps the easiest resolution to follow as it doesn't require you to change but go back to what you were naturally inclined to do

9/ Stop Procrastinating – Keep a to do list, complete the most unpleasant items on the list first, manage technological distractions, don't start new assignments before completing tasks on the list, team up with productive

colleagues and model their techniques (Joseph R Ferrari – “Still procrastinating? The No-Regrets Guide to Getting it Done”)

8/ Learn to Take Risks – apply a risk management process and pick and choose which risks are worth accepting to achieve your goals

7/ Forgive Someone – the resentment we feel against someone who has harmed us can injure us more than the initial pain of being hurt – Post-Traumatic Embitterment Disorder leads to chronic health issues – Acknowledge your pain, Ask yourself what do you want this pain to turn into (forgiveness is a service to yourself), Work through your anger, Renounce your rage and resentment (Ned Hallowell)

6/ Tip Generously – in countries where service people work for gratuities your tip may mean that they can pay their rent, buy a new pair of shoes etc – remember the price of the service may be higher if their wages were higher

5/ Learn One New Thing – mental workouts improve the function parts of the brain associated with memory, learning and decision making – acquiring new knowledge is easier today with the advent of free Massive Open Online Courses (MOOC's)

4/ Live Longer – Watch Less TV – ‘sitting is the new smoking’ – in one study people who watched 4 hours or more of TV were more likely to die from heart disease than those who watched 2 hours (American Heart Association 2010) – cut TV time in favour of more healthier pursuits

3/ Try a new Adventure – going to new places means learning how to interact with whoever you meet – take a volunteer vacation, attend a local festival celebrating a culture you're not familiar with

2/ Get to Know Your Neighbours – people have become alienated from their neighbours mostly due to being immersed in their work, TV, the internet - people who have regular contact with neighbours feel more secure and happy

1/ Use your Talents for a Good Cause – volunteering is good for the soul – if ‘time poor’ to get involved with structured programs perform ad-hoc spur-of the-moment activism (Kari Henley) – helping one person at a time is a good entry-level way to become a humanitarian.”

Whether you are a ‘Non-Resolver’ or a ‘Resolver’ I trust that your engagement with, and mind set of wellness over the years will assist you to ‘beat the odds’ in all your attempts of self-improvement throughout the coming year.



Bob Boyd
President

Quote For The Month



International Wellness Connections

This is the 34rd 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 articles have appeared in the National Wellness Institute (USA) monthly newsletter, at least 12 months previous to them appearing in this publication.

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

[The Two Faces of Wellness in the Heart of Europe, in the Hearts of People from the Czech Republic](#) Posted By *NWI, Tuesday, January 06, 2015*

By Jana Stara
Doctoral student at the Masaryk University in Brno, Czech Republic

Due to its location in the very center of the old continent, the Czech Republic is often called the Heart of Europe. In this article I would like to introduce you to the two faces of wellness in my country. One is the wellness that calls itself wellness and then there is the other wellness that doesn't know it is wellness - wellness that is hidden in the hearts of Czech people.

Let's start with the first case: Wellness that calls itself wellness

In Europe there is a long spa tradition and the Czech Republic is no exception. As Czech borders opened 25 years ago, many modern trends have emerged in the country, and as wellness was one of them it naturally found its place in the spa resorts. Unfortunately there was no one to explain what the word wellness really meant so it became a marketing label for many things.

Czech wellness follows a similar pattern as [wellness in Germany, as described by Lutz Hertel](#). The word "wellness" has become a synonym for a type of service or a place where you go to feel better (so called wellness centers). Many spa resorts and hotels now offer weekend retreats labeled as wellness and the services and products you can buy in a wellness center vary from fitness classes, sauna, massage therapy, cosmetics, hair dressers, up to wellness food or wellness towels.

Almost every Czech knows the word wellness, but when you ask people what wellness is, they struggle with a definition. On the other hand, when you ask them if they want to live healthy, happy and fulfilling lives, their answer

is very clear – YES, of course!

The second case: wellness that doesn't know it is wellness

For the purpose of this article I did a subjective wellness spin on the Czech nation using John Travis's 12 dimensions of wellness as a framework to organize my thoughts. I asked myself if there is a place for "real" wellness in the hearts of Czech people. (Please, note that the following lines are my assumptions and generalizations from observing this country for the past three decades and comparing it with other countries where I have lived or studied.)

Self-responsibility and Love

In terms of physical health, Czechs are very dependent on their doctors and as long as our healthcare services are for free, it seems to be enough (patients only pay \$1.50 to see the doctor and another \$1.50 for a prescription). Yet, many problems don't have their cures in the traditional healthcare system, so there is growing interest in psychosomatic and alternative medicine.

Czechs are aware about the fact that their state of health is dependent on their lifestyle and their behavior, but they tend to ignore the connection. The trend of healthy living has turned into something like: "You HAVE TO BE FIT, BEAUTIFUL AND SUCCESSFUL!" but it is a part of Czech's nature, that when we HAVE TO DO something, we just don't want to do it.

Breathing

As any other human Czechs do breathe, in and out, but they don't really think about it. My experience from wellness classes I facilitate is that once you introduce Czech people to the "magic of deep breathing", they fall in love with it. Speaking generally, it is getting easier to breathe here – as thankfully smoking is prohibited from public spaces and from restaurants.

Sensing

The Czech country is full of beautiful nature from mountains to fields, numerous historical monuments and cities full of old and contemporary art. The rumor is that Czech girls are very beautiful, so there is a lot to look at! Unfortunately Czechs spend most of their days on autopilot (because there is a lot of work to be done, right?) and living in the present moment can be ignored.

Eating

The traditional Czech meal is cabbage, pork and dumplings, which is far from healthy. Most of what our grandmothers would cook as a festive meal could be labeled as unhealthy, but the second side of the coin is that almost every Czech family has a garden where they grow fruit and vegetables. The young people living in the city are very much into local farmers markets and eco/bio products. Still, mum's homemade meal is the most frequent menu.

Moving

The current research says that Czech people are one of the most obese in Europe and that we don't move enough. At the same time the Czech Republic has the densest net of hiking routes in the world. There is also a long tradition of grass root sport clubs under Sokol or other voluntarily run organizations all existing alongside modern fitness/wellness centers.

Feeling

My personal experience is that Czech people are less outwardly emotional, compared to Americans, or that they at least don't talk about their emotions that much. Be it a matter of language or a cultural norm, you will not hear us say "I love it!!", but once we say "I love you," it really means something.

Thinking

Czechs are very critical but also very humble, which might result in lower self-esteem (and self-love?), yet it makes for a very peaceful nation. When Czechoslovakia was split into the Czech Republic and Slovakia in 1993, it happened over a table. No guns, no deaths, just a gentleman's agreement and signatures on a paper.

Playing and Working

The Czech Republic follows the German working style and there has even been a saying "golden Czech hands" that

described the quality of Czech workmanship. You can guess there is more work than play in every day. Especially the younger generation work days and nights to get a good career, but there appears to be a growing number of those, who value their health over long working hours and topics of self-care and work-life balance are on the rise.

Communicating

A friend of mine, who lived for a while in the US, once told me that Czechs are very sincere. I can only agree with that: If we like your new trousers, we tell you and if we don't like them, we don't say anything (sure, some would gossip about it behind your back, but that is another story).

Intimacy

Czechs are very welcoming and it would not take you long to make a Czech friend. According to tradition, all Slavic nations offer their guests a slice of bread with salt. Well, Czechs say that beer is a liquid bread of their nation, so as a guest they would invite you to have a beer with them. But it is not for the purpose to get drunk! In fact it is usually over beer where the "good talks" happen.

Finding Meaning

Czechs love the question "Why?" It is a part of our critical thinking and the tradition of disobeying (or better say questioning) the rules. Yet we are still, as a nation and as individuals, learning to deal with the freedom to ask questions that don't have specific answers; questions like "Who am I/Who are we?", "Is money more important than my/our values?", "Do I/we want to go East or West?"...

Transcendence

Due to historical events, Czech Republic is amongst the least religious of European countries. Even if churches remain partly empty, there is a growing interest in spiritual practices, like meditation, yoga, tai-chi, random kindness etc.

Wellness in the Czech Republic remains mostly unrecognized, but it has many areas where the real understanding of the concept can grow from – it has its definite place in the hearts of Czech people. However, while currently spas/wellness centers attract people who want to feel better, the whole system lacks self-responsibility and applications outside of the spa resort.

When the person wants to change her life (style), she is left alone with a doctor's prescription and a set of services and products she can passively use. But the common question is: *Where do I start?* and *What do I do if I do not initially succeed?* This is the gap that understanding wellness can bridge; it can connect the dots; connect the nature of a person (be it a Czech or any other nationality) with the services and professionals that are already there.

Jana Stara is a speaker, trainer and doctoral student at the Masaryk University in Brno, Czech Republic. She dedicated her research and lecturing practice to promoting the concept of wellness in her country with respect to different cultural environment and traditions in Europe. She teaches at the university, empowers individuals, consults companies and believes that better times for European wellness are yet to come.



To Bolster A New Year's Resolution, Ask, Don't Tell

Study finds that questioning influences behavior

"Will you exercise this year?" That simple question can be a game-changing technique for people who want to influence their own or others' behavior, according to a recent study spanning 40 years of research.

The research is the first comprehensive look at more than 100 studies examining the 'question-behavior effect,' a phenomenon in which asking people about performing a certain behavior influences whether they do it in the future. The effect has been shown to last more than six months after questioning.

Writing in the *Journal of Consumer Psychology*, marketing researchers from the University of California, Irvine, the University at Albany, State University of New York, the University of Idaho and Washington State University examined why the effect occurs. Their findings offer guidance to social marketers, policy makers and others seeking to impact human behavior.

Why questions can influence behavior

"If you question a person about performing a future behavior, the likelihood of that behavior happening will change," said Dave Sprott, a co-author and senior associate dean of the Carson College of Business, Washington State University.

The basic idea is that when people are asked 'Will you recycle?' it causes a psychological response that can influence their behavior when they get a chance to recycle. The question reminds them that recycling is good for the environment but may also make them feel uncomfortable if they are not recycling. Thus, they become motivated to recycle to alleviate their feelings of discomfort.

Overall, the researchers' findings suggest questioning is a relatively simple yet effective technique to produce consistent, significant changes across a wide domain of behaviors. The technique can sway people toward cheating less in college, exercising more, recycling, or reducing gender stereotyping.

Benefits of using the technique

"We found the effect is strongest when questions are used to encourage behavior with personal and socially accepted norms, such as eating healthy foods or volunteering," said Eric R. Spangenberg, first author and dean of the Paul Merage School of Business, University of California, Irvine. "But it can be used effectively to even influence consumer purchases, such as a new computer."

"It is pretty easy to ask a question, and it can be done in a variety of means, such as ads, mailers, online media, and interpersonal communications," said Sprott.

The researchers found the question-behavior effect to be strongest when questions are administered via a computer or paper-and-pencil survey, and when questions are answered with a response of 'yes' or 'no.' They also found that those using the technique are better off not providing a specific time frame for the target behavior.

The study suggests that the technique will be less impactful on habits or behaviors that consumers have done a lot. The researchers also advise using caution asking about vices like skipping class or drinking alcohol. In their review, they found a study showing that people asked about vices later did them more than a control group.

Tips for New Year's resolution makers and others

The researchers suggest the key to influencing someone's behavior is to ask a question rather than make a statement. For example, parents asking their high school-age children, 'Will you drink and drive?' should be more effective than when they say, 'Don't drink and drive.'

For people making New Year's resolutions, a question like, 'Will I exercise -- yes or no?' may be more effective than declaring, 'I will exercise.'

Other coauthors include Ioannis Kareklas, assistant professor of marketing, University at Albany, State University of New York, and Berna Devezer, assistant professor of marketing, University of Idaho.

<http://www.sciencedirect.com/science/article/pii/S1057740815001102>



Researchers See Promising Results In Treating Age-Related Decline In Muscle Mass And Power

A [proof-of-concept, phase 2 trial](#) by an international research team has found promising results for a myostatin antibody in treating the decline in muscle mass and power associated with aging.

"Myostatin is a natural protein produced within the body that inhibits muscle growth," said Stuart Warden, a member of the research team who is also associate dean for research and associate professor in the [School of Health and Rehabilitation Sciences at Indiana University-Purdue University Indianapolis](#). "It has been hypothesized for some time that inhibition of myostatin may allow muscle to grow, resulting in improved muscle mass and physical performance. The current study confirms these beliefs."

In the study, injections of a myostatin antibody, made by Eli Lilly and Co., over a 24-week period resulted in an increase in lean (muscle) mass and improved performance on tasks requiring muscle power in patients older than 75 with low muscle strength, low muscle performance and a history of falling.

"This is the first study to show that myostatin antibody treatment improves performance on activities requiring muscle power," Warden said. "'Muscle power' refers to the ability to generate muscle force quickly. During aging, it is lost more rapidly than muscle strength, contributing to disability, falls, reduced quality of life and, in some instances, death."

"Myostatin antibody treatment improved muscle power in the elderly, as indicated by improvements in the ability to climb stairs, walk briskly and rise repetitively from a chair," Warden said. "Treatment particularly benefited those who were most frail at baseline, a population who may not be receptive to conventional intervention such as resistance exercise."

Warden said the current study "provides proof-of-concept evidence to proceed to the larger studies that are required to demonstrate whether myostatin antibody treatment improves quality of life and reduces falls and their consequences during aging." He added: "This is an important and exciting first step."

<http://news.iupui.edu/releases/2015/12/myostatin-warden-muscle-growth.shtml>



Seeking Treatment Earlier May Improve Heart Attack Outcomes

Restoring blood flow quickly after heart attack symptoms begin key to less heart damage

While hospitals have made strides in reducing the time it takes to treat heart attack patients once they arrive at the hospital, patient delays recognizing symptoms and seeking treatment are associated with increased damage to the heart, according to a study published online today in *JACC: Cardiovascular Interventions*.

Door-to-balloon time is the time from when a heart attack patient arrives in the emergency room until percutaneous coronary intervention is performed to restore blood flow. American College of Cardiology/American Heart Association guidelines state that hospitals treating STEMI patients with emergency percutaneous coronary intervention should do so within 90 minutes or less of reaching the hospital, and the ACC launched the Door-to-Balloon (D2B) Alliance in 2006 to reduce the time to which STEMI patients receive percutaneous coronary intervention in U.S. hospitals.

According to the study, in about 90 percent of percutaneous coronary intervention cases, blood flow is restored in the surface of the heart, but in about one-third of patients, blood flow is not restored to the heart muscle. Researchers in this study compared the impact of the time from heart attack symptom onset-to-balloon and door-to-balloon on heart muscle function.

Researchers reviewed the records of 2,056 patients in the multi-center Harmonizing Outcomes with Revascularization and Stents in Acute Myocardial Infarction (HORIZONS-AMI) trial comparing patients with symptom onset-to-balloon time in three categories 1) two hours and less, 2) more than two hours to four hours, and 3) more than four hours.

Patients in the study who took a total of two to four hours or longer from the onset of symptoms to get treated with a balloon angioplasty to restore blood flow to the heart were less likely to have blood flow fully restored to the heart and were more likely to die within three years than patients treated more quickly.

"The decrease in median door-to-balloon time in recent years has not resulted in a reduction in mortality in STEMI patients," said Roxana Mehran, M.D., a study author and director of interventional cardiovascular research and clinical trials at the Zena and Michael A. Weiner Cardiovascular Institute at Mount Sinai School of Medicine. "This study highlights the need to reconsider the role of door-to-balloon as a performance metric and examine the utility of a broader metric of systems delay such as first medical contact to balloon time as well as total ischemic time."

In an accompanying editorial, Michael A. Kutcher, M.D., of Wake Forest Baptist Medical Center, said the door-to-balloon metric and systems in place are extremely valuable and should continue; however, physicians need to pay attention to associated metrics such as the symptoms and signs of the onset of ischemia, which is loss of blood flow. He attributed the lack of significant improvement in mortality and morbidity with reduced door-to-balloon time to the fact that microvascular damage can still occur with shorter door to balloon times and can lead to increased risk of death.

"Patients with prolonged symptom onset-to-balloon time are a high risk group and should be treated accordingly with assertive strategies," Kutcher said. "We as an interventional cardiology community should continue to educate the public and health care providers regarding the importance to quantify symptom onset-to-balloon time and follow through with prompt action."

For more information on the American College of Cardiology's D2B initiative visit <http://cvquality.acc.org/d2b>.

The American College of Cardiology is a 49,000-member medical society that is the professional home for the entire cardiovascular care team. The mission of the College is to transform cardiovascular care and to improve heart health. The ACC leads in the formation of health policy, standards and guidelines. The College operates national registries to measure and improve care, provides professional medical education, disseminates cardiovascular research and bestows credentials upon cardiovascular specialists who meet stringent qualifications. For more information, visit acc.org.



Cell Harm Seen In Lab Tests Of E-Cigarettes

Adding to growing evidence on the possible health risks of electronic cigarettes, a lab team at the Veterans Affairs San Diego Healthcare System tested two products and found they damaged cells in ways that could lead to cancer. The damage occurred even with nicotine-free versions of the products.

"Our study strongly suggests that electronic cigarettes are not as safe as their marketing makes them appear to the public," wrote the researchers, who published their findings in the journal *Oral Oncology*.

The U.S. Food and Drug Administration does not regulate e-cigarettes like it does conventional tobacco products. But it has warned of possible health risks. So far, though, evidence is limited on what exactly e-cigarettes contain and whether those chemicals are safe, particularly in terms of cancer.

"There haven't been many good lab studies on the effects of these products on actual human cells," says Dr. Jessica Wang-Rodriguez, one of the lead researchers on the new study. She is a professor of pathology at the University of California, San Diego, and chief of pathology and laboratory medicine at the San Diego VA. She specializes in studying head and neck cancer.

Her team created an extract from the vapor of two popular brands of e-cigarettes and used it to treat human cells in Petri dishes. Compared with untreated cells, the treated cells were more likely to show DNA damage and die.

The exposed cells showed several forms of damage, including DNA strand breaks. The familiar double helix that makes up DNA has two long strands of molecules that intertwine. When one or both of these strands break apart and the cellular repair process doesn't work right, the stage is set for cancer.

The affected cells were also more likely to launch into apoptosis and necrosis, which lead to cell death.

In the main part of the experiment, the team used normal epithelial cells, which line organs, glands, and cavities throughout the body, including the mouth and lungs.

The scientists tested two types of each e-cigarette: a nicotine and nicotine-free version. Nicotine is what makes smoking addictive. There is also some evidence it can damage cells. The San Diego team found that the nicotine versions caused worse damage, but even the nicotine-free vapor was enough to alter cells.

"There have been many studies showing that nicotine can damage cells," says Wang-Rodriguez. "But we found that other variables can do damage as well. It's not that the nicotine is completely innocent in the mix, but it looks like the amount of nicotine that the cells are exposed to by e-cigarettes is not sufficient by itself to cause these changes. There must be other components in the e-cigarettes that are doing this damage. So we may be identifying other carcinogenic components that are previously undescribed."

She says her team is now trying to sort out those other substances and their specific effects.

Scientists already know of some troubling chemicals in the products. One is formaldehyde, a known carcinogen. Using the products at a low voltage setting may minimize the production of formaldehyde, research suggests. Another possible culprit is diacetyl, a flavoring agent that has been linked to lung disease. A Harvard study found it in more than three-quarters of flavored e-cigarettes and refill liquids, or "e-juice."

There are nearly 500 brands of e-cigarettes on the market, in more than 7,000 flavors. So scientists have their work cut out for them identifying all the potential problems.

"For now, we were able to at least identify that e-cigarettes on the whole have something to do with increased cell death," says Wang-Rodriguez. "We hope to identify the individual components that are contributing to the effect."

She notes that cells in the lab are not completely comparable to cells within a living person. The cells lines that scientists work with have been "immortalized because of certain cell changes," she says. So it could be that e-cigarette vapor has different effects than those seen in the lab.

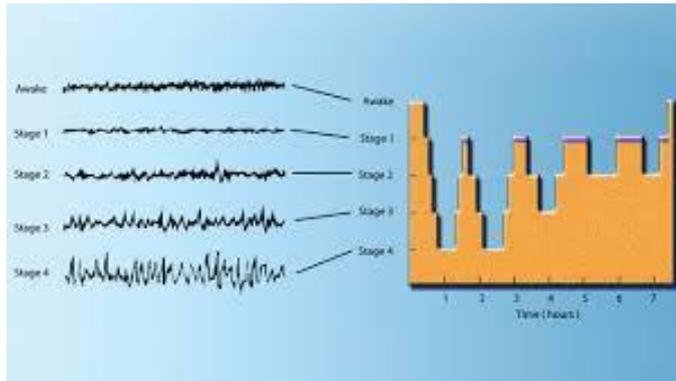
Also, her team didn't seek to mimic the actual dose of vapor that an e-cigarette user would get.

"In this particular study, it was similar to someone smoking continuously for hours on end, so it's a higher amount than would normally be delivered," she says. "What we're looking at now is to dose-control these. We want to know at what dose it causes that critical switch-over to where we see the damage."

The overarching question is whether the battery-operated products are really any safer than the conventional tobacco cigarettes they are designed to replace.

Wang-Rodriguez doesn't think they are.

"Based on the evidence to date," she says, "I believe they are no better than smoking regular cigarettes."



Scientists Detect Inherited Traits Tied To Sleep, Wake, And Activity Cycles

In the first study of its kind, a team of international scientists led by UT Southwestern Medical Center and

UCLA researchers have identified a dozen inherited traits related to sleep, wake, and activity cycles that are associated with severe bipolar disorder.

Researchers also were able to tie the traits to specific chromosomes, providing important clues to the genetic nature of the disorder, as well as potential new avenues for prevention and treatment.

"We were able to identify 13 sleep and activity measures, most of which are inherited, that correlated with whether an individual had bipolar disorder. In addition, we were able to trace some of these traits to a specific chromosome," said Dr. Joseph Takahashi, Chairman of Neuroscience and a Howard Hughes Medical Institute (HHMI) Investigator at UT Southwestern, who holds the Loyd B. Sands Distinguished Chair in Neuroscience.

"This study represents a key step in identifying the genetic roots of this disorder and, in turn, providing targets for new approaches to preventing and treating bipolar disorder," said Dr. Nelson Freimer, who directs the Center for Neurobehavioral Genetics and holds the Maggie Gilbert Chair of Psychiatry at UCLA.

Bipolar disorder, or manic-depressive illness, causes dramatic mood shifts – often called episodes – in which the person is overly excited, extremely sad or depressed, or a mixed state of both, including irritable or explosive behavior, according to the National Institute of Mental Health, part of the National Institutes of Health.

Causes of bipolar disorder (BP) are thought to be both genetic and environmental, and researchers have long suspected that disruption in normal daily circadian rhythms, including sleep and wake cycles, can precede mood shifts.

Researchers here found that those with bipolar disorder awoke later and slept longer, on average were awake fewer minutes overall, and were active for shorter periods than those without the disorder. Researchers also found that those with bipolar disorder displayed lower activity levels while awake and had greater variations in sleep and wake cycles. The findings are reported in the journal *Proceedings of the National Academy of Sciences*.

The study, involving more than 500 members of 26 families from Costa Rica and Colombia, identified because they each include many individuals with severe bipolar disorder, is the first large-scale delineation of sleep and activity traits in BP-affected individuals and their relatives and the first genetic investigation of such a comprehensive set of sleep and circadian measures in any human study.

The 13 endophenotypes (biological or behavioral markers found more commonly in those with a certain disease than without) are: mean of awake duration, amplitude, Hill acrophase, interdaily stability, interdaily variability, median activity, relative amplitude, mean length of sleep bouts during the sleep period, mean number of sleep bouts during awake period, time of sleep offset, time of sleep onset, mean total minutes scored awake, and WASO (total minutes in awake bouts after sleep onset).

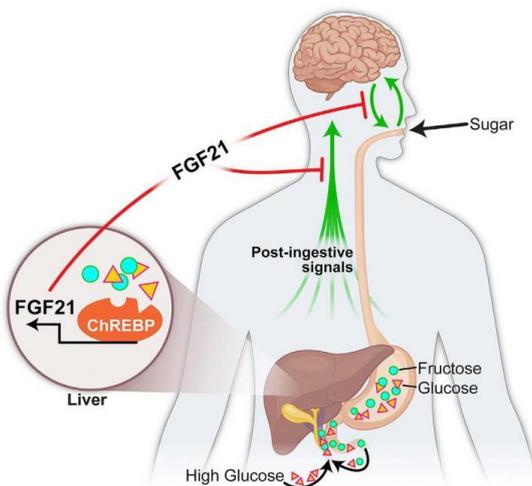
The study was supported by National Institutes of Health grants, the University of Antioquia, and the Howard Hughes Medical Institute. UT Southwestern researchers included Dr. Lucia Pagani, former postdoctoral researcher; and researchers from the University of California, Los Angeles; Universidad de Costa Rica; Instituto de Alta

Tecnología Médica de Antioquia; Rutgers-Robert Wood Johnson Medical School; University College London; Hospital San Vicente Fundacion; BioCiencias Lab in Guatemala; University of California, San Francisco; and Stanford University.

Dr. Takahashi, a member of the National Academy of Sciences, Academy of Medicine, and American Academy of Arts and Sciences, is known for landmark discoveries in the field of circadian rhythms that govern virtually every aspect of life, including sleeping, waking, and eating. Dr. Takahashi identified the world's first gene in a mammal involved in the circadian rhythms, which are 24-hour oscillations in behavior, physiology, and biochemistry that are generated by a cell-autonomous clock system found in all classes of living organisms. The Takahashi Lab is working to understand the genetic and molecular basis of circadian rhythms, using genetic approaches in mice to discover genes regulating the nervous system and behavior. The molecular mechanisms of the clock also are being studied at the biochemical and genomic levels.

UT Southwestern, one of the premier academic medical centers in the nation, integrates pioneering biomedical research with exceptional clinical care and education. The institution's faculty has included six who have been awarded Nobel Prizes since 1985. The faculty of more than 2,700 is responsible for groundbreaking medical advances and is committed to translating science-driven research quickly to new clinical treatments. UT Southwestern physicians provide medical care in 40 specialties to about 92,000 hospitalized patients and oversee approximately 2.1 million outpatient visits a year.

<http://www.utsouthwestern.edu/newsroom/news-releases/year-2015/dec/bipolar-takahashi.html>



Liver May Sway Sweet Tooth, Alcohol Consumption

It may be your liver (and not your better judgement) that keeps you away from excess sweets this holiday season. Two independent research groups have found the first evidence of a liver-derived hormone that specifically regulates intake of sugars and alcohol in mice. One of the studies also found that the same hormone suppresses the consumption of sweets in primates.

"A lot of work has examined the central mechanisms regulating sugar-seeking behavior, but the post-ingestive mechanisms regulating sugar appetite are poorly understood," says Matthew Potthoff of the University of Iowa, a senior author on one of the

papers.

"We never imagined that a circulating, liver-derived factor would exist whose function is to control sweet appetite," says his co-senior author Matthew Gillum of the University of Copenhagen. "We are very excited about investigating this hormonal pathway further."

The studies, together with human genetics studies linking the hormone--called FGF21 (or fibroblast growth factor 21)--to nutrient preference, "show that FGF21 can exert powerful effects on behavior by acting on the central nervous system, including in humans," says Steven A. Kliewer of University of Texas Southwestern Medical Center, a senior author on the other paper.

He adds one note of caution: "While at first blush it would seem that this FGF21-regulated pathway could be a panacea for suppressing sugar and alcohol consumption, it's important to keep in mind that these reward behaviors are closely tied to mood, and so additional studies to determine if FGF21 causes depression are certainly warranted."

The study from the lab of Kliewer and David J. Mangelsdorf at UT Southwestern and collaborators at Pfizer looked at FGF21 in both mice and monkeys. He says that while many signaling pathways in the central nervous systems are known to influence sweet and alcohol preference, this is the first liver-derived hormone found to have these effects. He was also struck by how powerfully FGF21 could suppress appetite, as a single dose could cause a monkey to almost immediately lose interest in sweet water.

But how is FGF21 working? In the other study, led by Potthoff and Gillum, they showed that, in mice, the liver produces FGF21 in response to sugar intake. FGF21 then enters the bloodstream and selectively suppresses sugar appetite by acting on the hypothalamus, a part of the brain that regulates food intake and energy homeostasis.

"In addition to identifying these neural pathways, we would like to see if additional hormones exist to regulate appetite for specific macronutrients like fat and protein, comparable to the effects of FGF21 on carbohydrate intake," Potthoff says. "If so, how do those signals intertwine to regulate the neural sensing of different macronutrients?"

Studies from over 50 years ago suggested that the liver was an important regulator of food intake and preference. Previous work has also shown that FGF21 is derived primarily from the liver, and that variations in the FGF21 gene sequence are associated with changes in macronutrient preference in humans. All of this together led Potthoff and Gillum to evaluate the role of FGF21 in regulating food preference.

We can only speculate why FGF21 exists in animals: Does it improve diet quality, preventing junk food consumption? Or, since sugar can ferment into ethanol, does it help the liver protect itself from excess alcohol? Whatever its origin, its ability to prevent overconsumption of sugar could be harnessed therapeutically upon further investigation in humans and could help explain why analogs of FGF21 are currently undergoing clinical evaluation for the treatment of obesity and type 2 diabetes.

Both groups agree that more work is needed, but the studies add to the growing evidence that--from gut microbes to our organs--controlling appetite is a whole-body affair.

Paper 1: *Cell Metabolism*, von Holstein-Rathlou and BonDurant et al: "FGF21 Mediates Endocrine Control of Simple Sugar Intake and Sweet Taste Preference by the Liver" <http://dx.doi.org/10.1016/j.cmet.2015.12.003>

The study was funded in part by grants from the American Diabetes Association, the National Institutes of Health, the Edward Mallinckrodt Jr. Foundation, the University of Iowa Fraternal Order of Eagles Diabetes Research Center, and the Novo Nordisk Foundation Center for Basic Metabolic Research.

Paper 2: *Cell Metabolism*, Talukdar and Owen et al: "FGF21 Regulates Sweet and Alcohol Preference" <http://dx.doi.org/10.1016/j.cmet.2015.12.008>

This work was supported by the National Institutes of Health, the Robert A. Welch Foundation, the Sir Henry Dale Fellowship jointly funded by the Wellcome Trust and the Royal Society, the Ford Foundation Fellowship, the German National Science Foundation, and the Howard Hughes Medical Institute.

Cell Metabolism (@Cell_Metabolism), published by Cell Press, is a monthly journal that publishes reports of novel results in metabolic biology, from molecular and cellular biology to translational studies. The journal aims to highlight work addressing the molecular mechanisms underlying physiology and homeostasis in health and disease. For more information, please visit <http://www.cell.com/cell-metabolism>. To receive media alerts for Cell Press journals, contact press@cell.com.



Psychotherapies Have Long-Term Benefit For Those Suffering From Irritable Bowel Syndrome

For some time doctors have known that psychological therapies can reduce the symptoms of irritable bowel syndrome in the short term.

IBS is a gastrointestinal disorder that affects 7 - 16 percent of the U.S. population, adding somewhere between \$950 million to \$1.35 billion annually to the nation's healthcare bill.

A new meta-analysis, published online on Dec. 22, 2015 by the journal *Clinical Gastroenterology and Hepatology*, has now found that the beneficial effects of psychological therapy also appear to last at least six to 12 months after

the therapy has concluded. The study analyzed the results of 41 clinical trials from a number of different countries containing more than 2,200 patients.

"Our study is the first one that has looked at long-term effects," said senior author Lynn S. Walker, professor of pediatrics at Vanderbilt University Medical Center. "We found that the moderate benefit that psychological therapies confer in the short term continue over the long term. This is significant because IBS is a chronic, intermittent condition for which there is no good medical treatment."

IBS, which is characterized by chronic abdominal pain, discomfort, bloating, diarrhea or constipation, is classified as a disorder of the "brain-gut axis." Although no cure is known, there are treatments to relieve symptoms including dietary adjustments, medication and psychological interventions.

"Western medicine often conceptualizes the mind as separate from the body, but IBS is a perfect example of how the two are connected," said first author Kelsey Laird, a doctoral student in Vanderbilt's clinical psychology program. "Gastrointestinal symptoms can increase stress and anxiety, which can increase the severity of the symptoms. This is a vicious cycle that psychological treatment can help break."

The studies that Laird analyzed included a number of different types of psychological therapies, including cognitive therapies, relaxation and hypnosis. Her analysis found no significant difference in the effectiveness of different types of psychotherapy. It also found that the length of the treatment (the number of sessions) didn't matter.

Possibly most significant from a healthcare cost perspective was the finding that treatments conducted online appear to be equally as effective as those conducted in person.

"In this study we looked at the effect of psychological therapies on gastrointestinal symptoms. In a follow-up study I am investigating the effect that they have on patients' ability to function: go to work, go to school, participate in social activities and so on," Laird said.

Paper co-authors are Research Assistant Professor Emily Tanner-Smith at the Peabody Research Institute, clinical fellow Alexandra Russell in Pediatrics and Gertrude Conaway Professor of Psychology Steven Hollon.

<http://news.vanderbilt.edu/2015/12/psychotherapies-have-long-term-benefit-for-those-suffering-from-irritable-bowel-syndrome/>



Eating Healthy or Feeling Empty? How the “Healthy = Less Filling” Intuition Influences Satiety

Eating too much is typically considered one of the prime culprits of obesity. A new study published in the *Journal of the Association for Consumer Research*, looked specifically at overconsumption of "healthy" foods which consumers often perceive as less filling. The researchers successfully found evidence to support their hypothesis that when people eat what they consider to be healthy food, they eat more than the recommended serving size because they associate "healthy" with less filling.

The research utilizes a multi-method approach to investigate the "healthy = less filling" intuition. The first study was conducted with 50 undergraduate students at a large public university and employed the well-established Implicit Association Test to provide evidence for an inverse relationship between the concepts of healthy and filling. The second study was a field study conducted with 40 graduate students at a large public university and measured participants' hunger levels after consuming a cookie that is either portrayed as healthy or unhealthy to test the effect of health portrayals on experienced hunger levels. The third study was conducted with 72 undergraduate students in a realistic scenario to measure the impact of health portrayals on the amount of food ordered before watching a short film and the actual amount of food consumed during the film. The set of three studies converges on the idea that consumers hold an implicit belief that

healthy foods are less filling than unhealthy foods.

Specifically, the researchers demonstrate that portraying a food as healthy as opposed to unhealthy using a front-of-package nutritional scale impacts consumer judgment and behavior. When a food is portrayed as healthy, as opposed to unhealthy, consumers report lower hunger levels after consumption, order greater portion sizes of the food, and consume greater amounts of the food. Surprisingly, even consumers who say they disagree with the idea that healthy foods are less filling than unhealthy foods are subject to the same biases. In addition, the researchers introduce a novel tactic for reversing consumers' habit of overeating foods portrayed as healthy: highlighting the nourishing aspects of healthy food mitigates the belief that it is less filling.

These findings add to the burgeoning body of work on the psychological causes of weight-gain and obesity and point to a way of overturning the pernicious effects of the "healthy = less filling" assumption. Specifically, the findings suggest that the recent proliferation of healthy food labels may be ironically contributing to the obesity epidemic rather than reducing it. Consumers can use this knowledge to avoid overeating foods presented as healthy and to seek foods portrayed as nourishing when they want to feel full without overeating.

This article is published in the inaugural issue of the *Journal of the Association for Consumer Research* entitled "The Behavioral Science of Eating." This issue has been edited by Brian Wansink of Cornell University and Koert van Ittersum of the University of Groningen.

Source: http://foodpsychology.cornell.edu/JACR/eating_healthy_feeling_empty

THE BEHAVIORAL SCIENCE OF EATING

JOURNAL OF THE ASSOCIATION FOR CONSUMER RESEARCH, VOL. 11, 2016

We've collected the newest thinking from 30 consumer behavior researchers into the inaugural issue of the Journal of the Association for Consumer Research.

I. HUNGER AND SATIETY



UNDERSTANDING IT JUSTICE MEAT ALTERNATIVES

Is there an issue behind meat? Can food be justice?



WHY DO WE EAT WHAT WE EAT?

The evolution of food culture: "Healthy" beverages and their effects on eating.



HEALTHY EATING: A MATTER OF TIME

Using behavioral economics to explore how much time is spent on "healthy" eating.



HEALTHY EATING: A MATTER OF TIME

How much time is spent on "healthy" eating?

II. SHOPPING AND DINING



HAPPY MEALS CAN BE HEALTHY

HEALTHY MEALS: From eating alone that usual advice (eat your fruits and veggies) when eating less food.



HEALTHY MEALS: A MATTER OF TIME

Using behavioral economics to explore how much time is spent on "healthy" eating.



BEING CAREFUL IN SHOPPING

Behavioral economics can lead to healthier shopping.



SMALLER IS BETTER

Smaller portions and bigger plates lead to smaller meals.



FOOD FREEDOM SOLUTIONS

Behavioral economics in food policies lead to healthier shopping.

III. MINDLESSLY EATING BETTER



THE BEHAVIORAL SCIENCE OF EATING

How eating better can lead to a healthier life.



HEALTHY EATING: A MATTER OF TIME

Using behavioral economics to explore how much time is spent on "healthy" eating.



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IV. THE FUTURE OF FOOD RESEARCH

THE BEHAVIORAL SCIENCE OF EATING

How eating better can lead to a healthier life.

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Recipe of the Month: Orange Dream



Dietitian's tip:

Whip up this frothy cooler in minutes — it tastes like an old-fashioned Creamsicle. For best results, start with ice-cold soy milk and use freshly squeezed orange juice. Creamy, custard-like silken tofu adds extra body. For additional calcium, use calcium-fortified orange juice.

Serves 4

Ingredients

- 1 1/2 cups orange juice, chilled
- 1 cup light vanilla soy milk (soya milk), chilled
- 1/3 cup silken or soft tofu
- 1 tablespoon dark honey
- 1 teaspoon grated orange zest
- 1/2 teaspoon vanilla extract
- 5 ice cubes
- 4 peeled orange segments

Directions

In a blender, combine the orange juice, soy milk, tofu, honey, orange zest, vanilla and ice cubes. Blend until smooth and frothy, about 30 seconds.

Pour into tall, chilled glasses and garnish each glass with an orange segment.

Nutritional analysis per serving

Serving size :About 1 cup (8 fluid ounces)

Total carbohydrate 17 g

Dietary fiber 1 g

Sodium 21 mg

Saturated fat < 1 g

Total fat 1 g

Trans fat 0 g

Cholesterol 0 mg

Protein 3 g

Monounsaturated fat < 1 g

Calories 89

Sugars 4 g

<http://www.mayoclinic.org/healthy-lifestyle/recipes/orange-dream/rcp-20049615>