



NATIONAL WELLNESS INSTITUTE OF AUSTRALIA INC.

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January 2017 NWIA Members' Newsletter

Events

- 11 Jan Make Your Dreams Come True Day
- 23 Jan Measure Your Feet Day
- 26 Jan Australia Day
- 11 Feb Don't Cry Over Spilled Milk Day
- 14 Feb Valentine's Day
- 22 Feb World Thinking Day
- 27 Feb International Polar Bear Day

Upcoming Conferences

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January Floral Emblem: Carnation

PRESIDENT'S MESSAGE

January 2017

Members and Readers, welcome to, and heartfelt wishes for, a Well 2017,

Traditionally 'tis the month for making (as well as breaking for some) New Year Resolutions. Over the years in this message at this time of the year I have shared many theories, suggestions and ideas on the making of, and how to succeed in keeping, New Year Resolutions – health behaviour change ones being the hardest to achieve it seems.

For example, one year I listed Patrick Kiger's 10 suggestions:-Trust your Instincts, Stop Procrastinating, Learn to Take Risks, Forgive Someone, Tip Generously, Learn One New Thing, Live Longer – Watch Less TV, Get to Know Your Neighbours, Use your Talents for a Good Cause.

Another year I shared some thoughts about Debbie Bermont's critical formula for successful business resolutions:- **Be flexible, Place service first, Embrace failure, Say NO to anything or anyone not in alignment with your values or mission, The universe always sends help, Your business and career are NOT your life, What you can imagine, the universe can create, Live your life from the highest vibration of your soul.**

I also passed on in a previous year Ashley Barnett's advice [Fn(F5)=A] about setting contemplated Functional (Fn) goals, instead of spur of the moment ones, around 5 key areas of life (F5)– Faith, Family/Friends, Fitness, Finances and Field of play personal and professional – to ensure sustainable measurable action (A) in order to achieve the stated goal.

This year I thought, instead of just being yet another voice labouring the need to, and how to, keep your New Year Resolutions, I would provide some relevant goals/resolutions/change quotes for you to switch on your wellness mindset and contemplate how you could use them, personally and/or for your professional wellness work with clients, for a successful and productive 2017.

To exist is to change. To change is to mature. To mature is to go on creating oneself endlessly (Henri Bergson).

Do not go where the path may lead. Go instead where there is no path and leave a trail (Ralph Waldo Emerson).

If all difficulties were known at the onset of a long journey, none of us would ever start out at all (Don Rather).

Whether you think you can or think you can't - you are right (Henry Ford).

If you want the rainbow- you gotta' put up with the rain (Dolly Parton).

What you get by reaching your destination is not nearly as important as what you will become by reaching your destination (Zig Ziglar).

This one step – choosing a goal and sticking to it – changes everything (Scott Reed).

You must have long term goals to keep you from being frustrated by short term failures (Charles C. Noble).

From a certain point onward there is no longer any turning back. That is the point that must be reached (Frank Kafka).

Decide what you want, decide what you are willing to exchange for it. Establish your priorities and go to work (H.L. Hunt).

Success is not measured in achievement of goals, but in the stress and strain of meeting those goals (Spencer W. Kimball).

Do not let the future be held hostage by the past (Neal A. Maxwell).

Desire is the key to motivation, but it's the determination and commitment to an unrelenting pursuit of your goal – a commitment to excellence – that will enable you to attain the success you seek (Marlo Andretti).

Beware your thoughts, they become your words; beware your words they become your actions; beware your actions they become your habits; beware your habits they become your nature; beware your nature they become your destiny (Colin Bush).

Research and theories alert us to how difficult change of behaviour/keeping a resolution is. But personal experience is the 'true' teacher' of that fact. Perhaps the older one becomes the more one listens to the 'lessons' of that 'teacher'. Yet every time it comes down to a personal choice to act on those lessons, to set resolutions that have the best possible potential for success, and work resiliently to keep those resolutions in order to achieve an improved wellness life.

Sincere wishes that resolutions set by you/your clients in 2017 are successfully achieved, and the prospect of attainment of a productive and enjoyable year is enhanced because of doing so.



Bob Boyd

NWIA PRESIDENT

**Management Committee for 2016-2017 elected at the Annual General Meeting
1st December 2016**

President:	Robert Boyd
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International Liaison Officer:	Vacant

Quote For The Month



International Wellness Connections

This is the 45th article of a series featuring information from International Wellness Practitioners about the state of Wellness in their country of residence. This and any previous International Wellness 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

[Israel From a Wellness Perspective](#)

Posted By NWI, Tuesday, January 5, 2016

Amir Alroy, M.Sc.

Founder and CEO of Cloud 9 Wellness Clubs

Israel

Wellness is quite a new term in Israel. Wellness in Israel does exist in a practical way. One can find gyms and spas, medical and health centers, medical tourism, outdoor activities, beauty clinics, and more. Yet it is very symbolic that we still don't have a common word in Hebrew for wellness and we use the English term. However, I can say that the awareness of the terms wellness and wellbeing is rising and industry in general is developing in different sectors.

In order to understand the industry, I will elaborate regarding the following segments:

The Israeli Health Care System: The Israeli Healthcare system prides itself on the availability of excellent and affordable medical care for all its inhabitants. There are high standards of health services, top-quality medical resources and research, modern hospital facilities and an impressive ratio of physicians in the population.

The outcome of the above is reflected in Israel's low infant mortality rate (3.98 per 1,000 live births) and long life expectancy (84 years for women, 80.2 for men), among the highest in the world.

Health care for all, from infancy to old age, is ensured by law. The national expenditure on health is similar to that of other developed countries.

There is a National Health Insurance Law. This law provides a basket of medical services, including hospitalization, for all residents of Israel. All medical services are supplied by the country's four health care funds.

Spas

The Spa industry includes day Spas, Spa hotels, medical spas and mineral baths (such as the famous Dead Sea). As the quality of life increased, so did the quality and variety of the spa industry.

(Israel is 3rd in rank in number of spas and spa revenues in the Middle East North Africa region in 2013.)

Wellness Tourism

Medical tourism - Israel has become a center for people seeking specialized qualitative treatment. Beyond that, Israel is also becoming a wellness tourism hub with wellness hotels being developed. Israel's history, the holy places and the dead sea certainly help in this sense with attracting the tourists.

(Israel is ranked 3rd both in the number of trips and in expenditure in the tourism market in the Middle East North Africa region in 2013.)

Medical Tourism

Israel has become a center for people seeking specialized, qualitative treatment.

Israel is known to host many international medical conferences. Medical tourists are typically from European nations. The popular treatments include fertility treatments, cosmetic surgeries, and other complex procedures.

Some of the key strengths of Israel and the main reasons for this developed segment are:

- Cutting edge technology and equipment

- Well-established medical research institutes
- Biotechnological and pharmaceutical companies
- High success rates in IVF treatment
- Affordable and high-quality medical care

Wellness Living Communities/Real Estate

This is certainly on the rise. This sector is still in its infancy but gaining in awareness and is being rapidly developed. One can already see significant marketing campaigns for wellness communities, especially in the Tel Aviv metropolitan area, and the first real estate wellness projects.

Beauty

Quite a developed market. Israel offers a variety of modern, technological and sophisticated services and skilled personnel.

Fitness

There are about 1200 gyms and clubs – from local neighborhood clubs to big international sophisticated chains. About 85% of the clubs are privately owned, the other 15% are part of the big chains. There are also about 1,000 public pools operating throughout the country. The estimated number of people training in clubs is 10% of the population and growing. According to a survey conducted by the Israeli ministry of health in 2013, about 37% of Israelis reported doing physical activity every day or almost every day. The market is quite developed and modern.

Nutrition

Similar to the beauty market, it is a developed market. One of the developments is certainly recognizing the importance of keeping a balanced diet from early age and the increase of awareness and practical steps in schools and public institutions all over the country.

Another development is an increase in awareness of vegan and vegetarian nutrition, and therefore, an increase of services provided for this sector such as specific vegan restaurants and the offering of vegan choices in non-vegan restaurants and coffee shops.

Workplace Wellness

I have no doubt that this sector is in its early stages. There are a few companies that have in house wellness programs. However, there aren't well known wellness providers.

The Israeli corporate market is extremely developed. Israel is known worldwide as a “Start-up Nation”. With more than 3,000 high-tech companies and start-ups, Israel has the highest concentration of hi-tech companies in the world (apart from the Silicon Valley). Hence, I have no doubt the Workplace Wellness sector will develop soon and the gap between the obvious existing need in Israel and the expansive international knowledge and experience will close.

Wellness Developments in the Country

There is a trend of investing in wellness hotels and modern spas that would also serve the community as a wellness center. There are a few super modern hotels being designed that will offer more wellness options.

The increased awareness of living a wellness lifestyle in the public sector and insurance companies, better nutrition in public institutions and more wellness oriented programs.

Government wellness programs are growing – Some of which concentrate on communities, educating healthy habits in schools, promoting nutrition in communities and encouraging active lifestyles. The importance of those programs is even more serious especially in view of the increase in child obesity in Israel. Just like other western countries, 1 out of 3 children are overweight.

More conferences and forums are being held in the wellness and spa sectors that will spread the wellness concept and spirit.

To summarize, I believe that the industry will develop even further and more international trends would be adopted since the conditions are Optimal:

- The weather is perfect. Israel's climate is characterized by mild temperatures and much sunshine, perfect for enjoying outdoor activities all year round
- There is market and customer readiness – like in other industries where the US serves as a market leader, the

prospects are that the wellness industry will follow suit.

- The market is educated and there are skilled professionals who would carry out the industry.
- One of the main prospects that I can see is developing the corporate markets, namely bringing the culture of wellness into the companies on a larger scale.

In my opinion, with government support, new international trends, strong technological foundation and the right entrepreneurship, the industry will thrive.

Go Wellness Israel!



Amir Alroy, M.Sc. is the founder, the owner and the CEO of Cloud 9 Wellness Clubs, a chain of boutique fitness clubs. I founded it in 2006. He holds a Master (M.Sc.) in Sports Management from St. Thomas University, Miami, Florida (Graduated with honors) and a bachelor in Business Administration (MBA) from the IDC institute in Israel. A personal trainer certified by the National Personal Training Institute, and a wellness coach (certified by Wellcoach), in the last few years he has been deeply involved in the wellness industry in Israel. Amir organizes the "Wellness Forum", part of the Fitness and Lifestyle Convention in Tel Aviv. He attended the NWC 2015 for the first time and presented at the International sessions during the conference. Email: amir@cloudnine.co.il



Decorating Dangers: Researchers Caution Parents To Prevent Electrical Cord Burns To The Mouth

Children's oral electrical cord burns a rare but preventable injury

With millions of Americans decorating their homes for the holidays, tangles of extension cords and electrical wires are a common sight. Researchers from the University of Missouri School of Medicine have estimated more than 1,000 injuries in children caused by oral electrical burns were reported in emergency rooms from 1997 to 2012. The researchers caution parents and caregivers of young children to be mindful of the dangers of electrical burns to the mouth, especially during the holiday season.

"Although we often worry about injury from toppled appliances, parents also should be aware of the potential for electrical burns to the mouth caused by a child mouthing the end or biting through an electrical cord," said David Chang, M.D., an associate professor of otolaryngology at the MU School of Medicine and co-author of the study. "In 1974, the U.S. Consumer Product Safety Commission estimated 1,000 injuries associated with extension or appliance cord burns in a single year. Our study found that these injuries have decreased drastically to about 65 injuries a year. However, even one injury is too many when it can be prevented."

The researchers reviewed the Consumer Product Safety Commission's National Electronic Injury Surveillance System database. They found that 1,042 emergency room visits for pediatric oral electrical burns occurred between 1997 and 2012 -- an average of 65.1 cases a year. Nearly three-fourths of the visits involved patients younger than 5 years old. The majority of the injuries did not require hospitalization -- 77 percent of patients were treated and released -- while the remainder were admitted or transferred to a higher level of care. Most injuries involved electrical outlets, extension cords and electrical wires.

"These injuries are largely unintentional and avoidable," said Lauren Umstadd, M.D., resident physician in the MU Department of Otolaryngology -- Head and Neck Surgery and co-author of the study. "Due to their curiosity, young children are particularly at risk for oral electrical burns caused by household electrical cords, outlets and appliances. These burns can lead to devastating functional and cosmetic complications, which may require multiple corrective operations. We want families to be informed and safe while enjoying the holiday season."

The otolaryngologists recommend the following tips to help prevent oral electrical burns:

- Install tamper-resistant outlets or outlet covers.
- Inspect cords for damage before using and check for damaged sockets or loose wires. If a cord is hot to the touch, don't use it.
- Keep unprotected cords out of sight and out of the way of foot traffic to avoid tripping. Don't run a cord under a rug, which may cause the cord to overheat.
- Be vigilant when children or pets are near electrical cords and outlets.

The study, "Pediatric Oral Electrical Burns: Incidence of Emergency Department Visits in the United States, 1997-2012," was published in *Otolaryngology -- Head and Neck Surgery*, the peer-reviewed publication of the American Academy of Otolaryngology -- Head and Neck Surgery Foundation. Research reported in this publication was supported by the MU Department of Otolaryngology -- Head and Neck Surgery. The researchers have no conflicts of interest to declare related to this study.

<http://medicine.missouri.edu/news/20161219-decorating-dangers-mu-researchers-caution.php>



Multi-Social Millennials More Likely Depressed Than Social(media)ly Conservative Peers

Compared with the total time spent on social media, use of multiple platforms is more strongly associated with depression and anxiety among young adults, the University of Pittsburgh Center for Research on Media, Technology and Health (CRMTH) found in a national survey.

The analysis, published online and scheduled for the April print issue of the journal *Computers in Human Behavior*, showed that people who report using seven to 11 social media platforms had more than three times the risk of depression and anxiety than their peers who use zero to two platforms, even after adjusting for the total time spent on social media overall.

"This association is strong enough that clinicians could consider asking their patients with depression and anxiety about multiple platform use and counseling them that this use may be related to their symptoms," said lead author and physician Brian A. Primack, M.D., Ph.D., director of CRMTH and assistant vice chancellor for health and society in Pitt's Schools of the Health Sciences. "While we can't tell from this study whether depressed and anxious people seek out multiple platforms or whether something about using multiple platforms can lead to depression and anxiety, in either case the results are potentially valuable."

In 2014, Primack and his colleagues sampled 1,787 U.S. adults ages 19 through 32, using an established depression assessment tool and questionnaires to determine social media use. The questionnaires asked about the 11 most popular social media platforms at the time: Facebook, YouTube, Twitter, Google Plus, Instagram, Snapchat, Reddit, Tumblr, Pinterest, Vine and LinkedIn.

Participants who used seven to 11 platforms had 3.1 times the odds of reporting higher levels of depressive symptoms than their counterparts who used zero to two platforms. Those who used the most platforms had 3.3 times the odds of high levels of anxiety symptoms than their peers who used the least number of platforms. The researchers controlled for other factors that may contribute to depression and anxiety, including race, gender, relationship status, household income, education and total time spent on social media.

Primack, who also is a professor of medicine at Pitt, emphasized that the directionality of the association is unclear. "It may be that people who suffer from symptoms of depression or anxiety, or both, tend to subsequently use a broader range

of social media outlets. For example, they may be searching out multiple avenues for a setting that feels comfortable and accepting," said Primack. "However, it could also be that trying to maintain a presence on multiple platforms may actually lead to depression and anxiety. More research will be needed to tease that apart."

Primack and his team propose several hypotheses as to why multi-platform social media use may drive depression and anxiety:

- Multitasking, as would happen when switching between platforms, is known to be related to poor cognitive and mental health outcomes.
- The distinct set of unwritten rules, cultural assumptions and idiosyncrasies of each platform are increasingly difficult to navigate when the number of platforms used rises, which could lead to negative mood and emotions.
- There is more opportunity to commit a social media faux pas when using multiple platforms, which can lead to repeated embarrassments.

"Understanding the way people are using multiple social media platforms and their experiences within those platforms--as well as the specific type of depression and anxiety that social media users experience--are critical next steps," said co-author and psychiatrist César G. Escobar-Viera, M.D., Ph.D., a postdoctoral research associate at Pitt's Health Policy Institute and at CRMTH. "Ultimately, we want this research to help in designing and implementing educational public health interventions that are as personalized as possible."

A. Everette James, J.D., M.B.A., director of Pitt's Health Policy Institute, is senior author of the research publication. Additional authors are Ariel Shensa, M.A., Erica Barrett, Jaime E. Sidani, Ph.D., M.P.H., and Jason Colditz, M.Ed., all of Pitt. This research was supported by the National Institutes of Health grant number R01-CA140150.

About the University of Pittsburgh Schools of the Health Sciences

The University of Pittsburgh Schools of the Health Sciences include the schools of Medicine, Nursing, Dental Medicine, Pharmacy, Health and Rehabilitation Sciences and the Graduate School of Public Health. The schools serve as the academic partner to the UPMC (University of Pittsburgh Medical Center). Together, their combined mission is to train tomorrow's health care specialists and biomedical scientists, engage in groundbreaking research that will advance understanding of the causes and treatments of disease and participate in the delivery of outstanding patient care. Since 1998, Pitt and its affiliated university faculty have ranked among the top 10 educational institutions in grant support from the National Institutes of Health. For additional information about the Schools of the Health Sciences, please visit <http://www.health.pitt.edu>. <http://www.upmc.com/media>



The Man Who Mistook His Wife For An Imposter

Researchers reveal regions of the brain implicated in delusional misidentification syndromes

Neuroscientists at Beth Israel Deaconess Medical Center (BIDMC) have mapped the brain injuries - or lesions - that result in delusional misidentification syndromes (DMS), a group of rare disorders that leaves patients convinced people and places aren't really as they seem. In a study published in the journal *Brain*, Michael D. Fox, MD, PhD, Director of the Laboratory for Brain Network Imaging and Modulation and the Associate Director of the Berenson-Allen Center for Noninvasive Brain Stimulation at BIDMC and colleagues reveal the neuro-anatomy underlying these syndromes for the first time.

"How the brain generates complex symptoms like this has long been a mystery," said Fox. "We showed how complex symptoms can emerge based on brain connectivity. With a lesion in exactly the right place, you can disrupt the brain's familiarity detector and reality monitor simultaneously, resulting in bizarre delusions. Understanding where these symptoms come from is an important step toward treating them."

Delusional misidentification syndromes are among the most striking and least understood disorders encountered in neurology and psychiatry. First documented nearly a century ago, Capgras syndrome is a rare disorder in which patients recognize a family member while simultaneously experiencing that person as unfamiliar, leading to the conclusion that an imposter is impersonating their loved one. Conversely, the Fregoli delusion is the belief that strangers are actually loved ones in disguise. Misidentification delusions can also apply to pets and places.

Fox and colleagues, including lead author R. Ryan Darby, MD, the Sidney R. Baer, Jr. Foundational Fellow in the Clinical Neurosciences at the Berenson-Allen Center at BIDMC, identified 17 patients with delusional misidentification syndromes and mapped them onto a standardized brain atlas. Then, using the lesion network mapping technique they recently developed, Darby and colleagues determined that all 17 lesions were functionally connected to an area of the brain called the retrosplenial cortex - thought to be involved in perceiving familiarity. Sixteen of the 17 lesions were also connected to a region in the right ventral frontal cortex, associated with belief evaluation. The scientists compared the data to 15 control brain injuries that led to delusions other than misidentification delusions.

"Lesions causing all types of delusions were connected to belief violation regions, suggesting that these regions are involved in monitoring for delusional beliefs in general," Darby said. "However, only lesions causing delusional misidentifications were connected to familiarity regions, explaining the specific bizarre content - abnormal feelings of familiarity - in these delusions. In other words, lesions had to be connected to both regions to develop delusions like Capgras."

The scientists note that their network mapping technique does not involve obtaining functional neuroimaging (fMRI) from the patients studied. Rather, data from normal patients determines which regions of the brain are normally connected to the mapped lesion locations. While this methodology carries several advantages, it does not prove these two regions are dysfunctional in delusional patients following the lesion. Doing so would require recruiting a large number of patients with the rare disorder to a follow up study, noted Darby.

However, the new information gleaned from their study may help patients' families cope with a loved one's misidentification delusions -- which sometimes disappear as mysteriously as they come on.

"The impact on the patient's family can be heart-breaking," said Darby. "I've seen patients who, thinking their homes were replicas, would pack their bags every night, hoping to return to their 'real' home. Patients who believe a spouse is an imposter often lose intimacy. In these cases, even just knowing that the delusion has a name and is part of a neurological disorder can be helpful for family members."

Study coauthors include Simon Laganieri, MD, and Alvaro Pascual-Leone, MD, PhD, of the Berenson-Allen Center for Noninvasive Brain Stimulation at BIDMC; and Sashank Prasad, MD, of the Department of Neurology at Brigham and Women's Hospital.

This work was supported by funding from the Sidney R. Baer, Jr. Foundation; grants from the National Institutes of Health (R01HD069776, R01NS073601, R21 NS082870, R21 MH099196, R21 NS085491, R21 HD07616, R25NS065743, K23NS083741); the Football Players Health Study at Harvard University; Harvard Catalyst | The Harvard Clinical and Translational Science Center (NCRR and the NCATS NIH, UL1 RR025758), and the American Brain Foundation.

About Beth Israel Deaconess Medical Center

Beth Israel Deaconess Medical Center is a patient care, teaching and research affiliate of Harvard Medical School and consistently ranks as a national leader among independent hospitals in National Institutes of Health funding.

BIDMC is in the community with Beth Israel Deaconess Hospital-Milton, Beth Israel Deaconess Hospital-Needham, Beth Israel Deaconess Hospital-Plymouth, Anna Jaques Hospital, Cambridge Health Alliance, Lawrence General Hospital, MetroWest Medical Center, Signature Healthcare, Beth Israel Deaconess HealthCare, Community Care Alliance and Atrius Health. BIDMC is also clinically affiliated with the Joslin Diabetes Center and Hebrew Rehabilitation Center and is a research partner of Dana-Farber/Harvard Cancer Center and the Jackson Laboratory. BIDMC is the official hospital of the Boston Red Sox. For more information, visit <http://www.bidmc.org>.

http://www.bidmc.org/News/PR_LandingPage/2016/December/Fox-Darby-Delusional-Misidentification-Syndromes.aspx



Nutrition Data Review Shows Red Meat Has Neutral Effect On Cardiovascular Disease Risk Factors

Consuming red meat in amounts above what is typically recommended does not affect short-term cardiovascular disease risk factors, such as blood pressure and blood cholesterol, according to a new review of clinical trials from [Purdue University](#).

“During the last 20 years, there have been recommendations to eat less red meat as part of a healthier diet, but our research supports that red meat can be incorporated into a healthier diet,” said Wayne Campbell, professor of [nutrition science](#). “Red meat is a nutrient-rich food, not only as a source for protein but also bioavailable iron.”

The recommendations to limit red meat from the diet come mainly from studies that relate peoples’ eating habits to whether they have cardiovascular disease. While these studies suggest that red meat consumption is associated with a higher risk of cardiovascular disease, they are not designed to show that red meat is causing cardiovascular disease. So Campbell, doctoral student Lauren O’Connor, and postdoctoral researcher Jung Eun Kim, conducted a review and analysis of past clinical trials, which are able to detect cause and effect between eating habits and health risks. They screened hundreds of related research articles, focusing on studies that met specific criteria including the amount of red meat consumed, evaluation of cardiovascular disease risk factors and study design. An analysis of the 24 studies that met the criteria is published in the [American Journal of Clinical Nutrition](#).

“We found that consuming more than half a serving per day of red meat, which is equivalent to a 3 ounce serving three times per week, did not worsen blood pressure and blood total cholesterol, HDL, LDL and triglyceride concentrations, which are commonly screened by health-care providers,” O’Connor said.

This research includes all types of red meat, mostly unprocessed beef and pork.

Campbell also said more analysis is needed as the evaluation of blood pressure and cholesterol are not the sole determinants for someone to develop cardiovascular disease. For example, the length of time these experiments were done ranged from a few weeks to a few months as opposed to the years or decades that it could take people to develop cardiovascular disease or have a cardiovascular event.

“It is also important to recognize that our findings are specific to selected indicators for cardiovascular disease risk,” Campbell said. “Comparable research is needed to assess other health risk factors from clinical trials, including inflammation and blood glucose control.”

This research was supported by Purdue’s Ingestive Behavior Research Center National Institutes of Health T32 training grant and postdoctoral fellowship. Campbell received support for other research while this analysis was conducted from the American Egg Board-Egg Nutrition Center, Beef Checkoff, Coca-Cola Foundation, National Dairy Council, National Institutes of Health, Pork Checkoff and U.S. Department of Agriculture.

Campbell’s research also focuses on understanding how dietary protein and exercise influence adult health as people age and the importance of eating a variety of protein-rich foods as part of a healthy diet. He served as a member of the 2015 Dietary Guidelines Advisory Committee and is a current member of the 2018 Physical Activity Guidelines Advisory Committee.

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Note to Journalists: Journalists interested in the American Journal of Clinical Nutrition article can contact Amy Patterson Neubert, Purdue News Service, 765-494-9723, apatterson@purdue.edu

ABSTRACT

Total red meat intake of ≥ 0.5 servings/d does not negatively influence cardiovascular disease risk factors: a systemically searched meta-analysis of randomized controlled trials

Lauren E. O'Connor, Jung Eun Kim and Wayne W. Campbell

doi: 10.3945/ajcn.116.142521

Background: Observational associations between red meat intake and cardiovascular disease (CVD) are inconsistent. There are limited comprehensive analyses of randomized controlled trials (RCTs) that investigate the effects of red meat consumption on CVD risk factors.

Objectives: The purpose of this systematically searched meta-analysis was to assess the effects of consuming ≥ 0.5 or < 0.5 servings of total red meat/d on CVD risk factors [blood total cholesterol (TC), LDL cholesterol, HDL cholesterol, triglycerides, ratio of TC to HDL cholesterol (TC:HDL), and systolic and diastolic blood pressures (SBP and DBP, respectively)]. We hypothesized that the consumption of ≥ 0.5 servings of total red meat/d would have a negative effect on these CVD risk factors.

Design: Two researchers independently screened 945 studies from PubMed, Cochrane, Library and Scopus databases and extracted data from 24 qualified RCTs. Inclusion criteria were 1) RCT, 2) subjects aged ≥ 19 y, 3) consumption of ≥ 0.5 or < 0.5 total red meat servings/d [35 g (1.25 ounces)], and 4) reporting ≥ 1 CVD risk factor. We performed an adjusted 2-factor nested ANOVA mixed-effects model procedure on the postintervention values of TC, LDL cholesterol, HDL cholesterol, TC:HDL cholesterol, triglycerides, SBP, and DBP; calculated overall effect sizes of change values; and used a repeated-measures ANOVA to assess pre- to postintervention changes.

Results: Red meat intake did not affect lipid-lipoprotein profiles or blood pressure values postintervention ($P > 0.05$) or changes over time [weighted mean difference (95% CI): -0.01 mmol/L (-0.08, 0.06 mmol/L), 0.02 mmol/L (-0.05, 0.08 mmol/L), 0.03 mmol/L (-0.01, 0.07 mmol/L), and 0.04 mmol/L (-0.02, 0.10 mmol/L) mmol/L; -0.08 Hg (-0.26, 0.11 mm Hg); and -1.0 mm Hg (2.4, 0.78 mm Hg) and 0.1 mm Hg (-1.2, 1.5 mmHg) for TC, LDL cholesterol, HDL cholesterol, triglycerides, TC:HDL cholesterol, SBP, and DBP, respectively]. Among all subjects, TC, LDL cholesterol, HDL cholesterol, TC:HDL cholesterol triglycerides and DBP, but not SBP, decreased over time ($P < 0.05$).

Conclusions: The results from this systematically searched meta-analysis of RCTs support the idea that the consumption of ≥ 0.5 servings of total red meat/d does not influence blood lipids and lipoproteins or blood pressures.

<http://www.purdue.edu/newsroom/releases/2016/Q4/nutrition-data-review-shows-red-meat-has-neutral-effect-on-cardiovascular-disease-risk-factors.html>



New Biomarker Predicts Alzheimer's Disease And Link To Diabetes

An enzyme found in the fluid around the brain and spine is giving researchers a snapshot of what happens inside the minds of Alzheimer's patients and how that relates to cognitive decline.

Iowa State University researchers say higher levels of the enzyme, autotaxin, significantly predict memory impairment and Type 2 diabetes. Just a one-point difference in autotaxin levels – for example, going

from a level of two to a three – is equal to a 3.5 to 5 times increase in the odds of being diagnosed with some form of memory loss, said Auriel Willette, an assistant professor of [food science and human nutrition](#) at Iowa State.

Autotaxin, often studied in cancer research, is an even stronger indicator of Type 2 diabetes. A single point increase reflects a 300 percent greater likelihood of having the disease or pre-diabetes. The results are published in the [Journal of Alzheimer's Disease](#). Willette and Kelsey McLimans, a graduate research assistant, say the discovery is important because of autotaxin's proximity to the brain.

“We've been looking for metabolic biomarkers which are closer to the brain. We're also looking for markers that reliably scale up with the disease and have consistently higher levels across the Alzheimer's spectrum,” Willette said. “This is as directly inside of the brain as we can get without taking a tissue biopsy.”

Willette's [previous research](#) found a strong association between insulin resistance and memory decline and detrimental brain outcomes, increasing the risk for Alzheimer's disease. Insulin resistance is a good indicator, but Willette says it has limitations because what happens in the body does not consistently translate to what happens in the brain. That is why the correlation with this new enzyme found in the cerebrospinal fluid is so important.

“It has a higher predictive rate for having Alzheimer's disease,” McLimans said. “We also found correlations with worse memory function, brain volume loss and the brain using less blood sugar, which have also been shown with insulin resistance, but autotaxin has a higher predictive value.”

Physical health linked to memory

The fact that autotaxin is a strong predictor of Type 2 diabetes and memory decline emphasizes the importance of good physical health. Researchers say people with higher levels of autotaxin are more likely to be obese, which often causes an increase in insulin resistance.

Willette says autotaxin levels can determine the amount of energy the brain is using in areas affected by Alzheimer's disease. People with higher autotaxin levels had fewer and smaller brain cells in the frontal and temporal lobes, areas of the brain associated with memory and executive function. As a result, they had lower scores for memory and tests related to reasoning and multitasking.

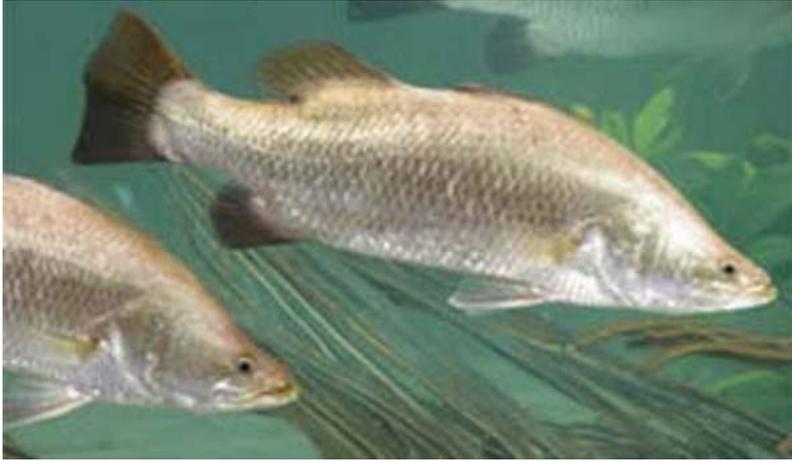
“Autotaxin is related to less real estate in the brain, and smaller brain regions in Alzheimer's disease mean they are less able to carry out their functions,” Willette said. “It's the same thing with blood sugar. If the brain is using less blood sugar, neurons have less fuel and start making mistakes and in general do not process information as quickly.”

Researchers analyzed data from 287 adults collected through the Alzheimer's Disease Neuroimaging Initiative, a public-private partnership working to determine whether MRI and PET scans as well as biological markers can measure the progression of cognitive impairment and Alzheimer's disease. The data came from adults ranging in age from 56 to 89 years old. Study participants completed various tests to measure cognitive function. This included repeating a list of words over various time increments.

The research was supported by an Iowa State Presidential Initiative for Interdisciplinary Research grant and a National Institutes of Health grant.

<http://www.news.iastate.edu/news/2016/12/19/alzheimersautotaxin>





Barramundi Populations At Risk From Acid Oceans

Wild barramundi populations are likely to be at risk under ocean acidification, a new University of Adelaide study has found.

Published in the journal [Oecologia](#), the study is the first to show that even freshwater fish which only spend a small portion of their lifecycle in the ocean are likely to be seriously affected under the higher CO₂ levels expected at the end of the century.

"We already know that ocean acidification will affect a lot of marine species that live their entire lives in the sea," says project leader [Professor Ivan Nagelkerken](#), from the University's [Environment Institute](#). "But this research has shown that fish such as barramundi – which only spend a short part of their lives in the ocean – will be impacted by ocean acidification."

Most adult barramundi live in freshwater rivers but need ocean water to hatch their eggs. The baby barramundi and juveniles grow up in coastal areas (estuaries, swamps, shallow coastlines) for a few years, then they migrate upstream to join other adults in the river.

The researchers found that in higher CO₂ levels, the response by baby barramundi to less salty, warmer waters and estuarine smells was reversed compared to baby fish in waters with current CO₂ levels.

"Developing baby barramundis, hatched in the oceans, need to find estuaries as intermediate habitats before they move upriver to complete their lifecycle," says PhD candidate [Jennifer Pistevos](#), who conducted the research under the supervision of Professor Nagelkerken and [Professor Sean Connell](#).

"They are therefore expected to respond positively to the warmer, less saline and smelly water of estuaries, but only once they've reached a certain stage of development. We believe the baby fish in acidified waters were responding to estuarine signals at an earlier stage than they should be. They may not be developmentally ready – a bit like running before they learn to walk."

Professor Nagelkerken says the failure to adequately time their move to estuaries is likely to have serious consequences for adult barramundi population sizes.

"Recruitment into estuaries is a delicate process and needs to be well-timed to match food abundance and to avoid predators," he says.

"Barramundi could be considered a robust species in terms of fluctuating environmental conditions and it was thought they could possibly deal satisfactorily with acidified waters. But we've shown just the opposite. This will have a significant impact on fishing – both recreational and commercial – where there is dependence on wild catches."

<http://www.adelaide.edu.au/news/news89982.html>



Recipe of The Month: Mediterranean Style Grilled Salmon

By Mayo Clinic Staff

Dietitian's tip:

You may substitute swordfish, halibut, sea bass or any other whitefish, and the calorie values are similar.
Serves 4

Ingredients

1. 4 tablespoons chopped fresh basil
2. 1 tablespoon chopped fresh parsley
3. 1 tablespoon minced garlic
4. 2 tablespoons lemon juice
5. 4 salmon fillets, each 5 ounces
6. Cracked black pepper, to taste
7. 4 green olives, chopped
8. 4 thin slices lemon

Directions

Prepare a hot fire in a charcoal grill or heat a gas grill or broiler. Away from the heat source, lightly coat the grill rack or broiler pan with cooking spray. Position the cooking rack 4 to 6 inches from the heat source.

In a small bowl, combine the basil, parsley, minced garlic and lemon juice. Spray the fish with cooking spray. Sprinkle with black pepper. Top each fillet with equal amounts of the herb-garlic mixture. Place the fish herb-side down on the grill. Grill over high heat. When the edges turn white, after about 3 to 4 minutes, turn the fish over and place on aluminum foil. Move the fish to a cooler part of the grill or reduce the heat. Grill until the fish is opaque throughout when tested with the tip of a knife and an instant-read thermometer inserted into the thickest part of the fish reads 145 F (about 4 minutes longer).

Remove the salmon and place on warmed plates. Garnish with green olives and lemon slices.

Nutritional analysis per serving

Serving size :1 fillet (about 4 ounces cooked)

- Calories 214
- Total fat 10 g
- Saturated fat 1 g
- Trans fat 0 g
- Monounsaturated fat 3 g
- Cholesterol 78 mg
- Sodium 143 mg
- Total carbohydrate 3 g
- Dietary fiber 1 g
- Total sugars 0.5 g
- Added sugars 0 g
- Protein 28 g

Source <http://www.mayoclinic.org/healthy-lifestyle/recipes/mediterraneanstyle-grilled-salmon/rcp-20049781>