



NATIONAL WELLNESS INSTITUTE OF AUSTRALIA INC.



July 2016 NWIA Members’ Newsletter

News & Events

- 25 July Thread the Needle Day
- 1 Aug Australia Picnic Day
- 1 Aug Respect for Parents Day
- 1 Aug Sport’s Day
- 6 Aug Wiggle Your Toes Day
- 11 Aug Play in the Sand Day
- 13 Aug International Left Handers’ Day
- 20 Aug International Homeless Animals Day
- 24 Aug International Strange Music Day
- 26 Aug Women’s Equality Day

Upcoming Conferences

Inside this Month

Topic	Page
President’s Message	2-3
Quote for the Month	4
Is Zika A Substantial Risk For Visitors To The Rio De Janeiro Olympic Games?	4-5
Cosmopolitan Snow Algae Accelerate The Melting Of Arctic Glaciers	5-6
Scientists Find 2 Ways To Limit Number Of Heat-Related Deaths From Climate Change	6-7
Canada Spends Over \$400 Million On Medicine That Harms Seniors	7-8
For Women, Healthy Diets May Help with Mobility when Aging	8-9
In Doctors We Trust – Especially When They Admit To Bias	9-10
Providing Bite Count Feedback Helps Lower Calorie Intake	10-11
More Reasons To Eat Your Broccoli	11-12
Recipe Of The Month: Broccoli, Garlic And Rigatoni	13



July Floral Emblem: Water Lily

Gentle Reminder

Have you forgotten to renew your membership?

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.

PRESIDENT'S MESSAGE

Greetings Wellness Colleagues, Friends and Readers,

My July message each year is usually about the annual National Wellness Conference in the USA.

This year it is also about the conference.

The 41st annual National Wellness Conference was held in St Paul Minnesota from Saturday 25 to Wednesday 29 June - third year in Minnesota (after 38 years in Stevens Point Wisconsin) and first year in St Paul, being in the St Paul River Centre alongside the Mississippi river. A much improved venue due mostly to the existence of a long central hallway off which all meeting rooms branched and down which all 41 exhibit booths were situated for almost the entire conference. The spread out venue of the University of Minneapolis campus on the other side of the river the previous 2 years, had not provided attendees with such a single spacious communal space in which to network, mingle and mix. With over 750 attendees the environment in that hallway during breaks was one of wellness hubbub and a conference organiser's delight to experience.

Over 80 participants were engaged on Saturday and Sunday with the base level Certificate of Workplace Wellness Specialist course (CWWS). The Conference Welcome Reception and Exhibit Hall Opening commenced at 4.00pm on Sunday afternoon. For the next 3 days the Conference offered: 74 breakout workshops, a variety of morning and lunch time wellness activities, 3 morning 'Wake up' Keynotes and a Wednesday evening closing Keynote, 2 different networking groups each lunch time (Adult ADD, Student, Nursing and Wellness, Health Practitioners, Men's and YMCA), 2 lunch time forums, 4 x 2 hour x 3 day Academies (Coaching, Integrative Health, Multicultural Competency and Worksite), book signings, the annual talent show and other social activities. The advanced level 2 day (Monday and Tuesday) Certificate of Workplace Wellness Program Manager (CWWPM) course was attended by 42 practitioners.

Brief details of the very well received Keynotes are: Mon am- "Wellness: Our Environment = Our Health" (**Seema Wadhwa** LEED AP – Assistant Vice President of Sustainability and Wellness for Inova Health System - [twitter@HCgogreen](https://twitter.com/HCgogreen)), Tues am – "The Good Food Revolution: Growing Healthy Food, People and Communities" (**Will Allen** – CEO of Growing Power – www.prhspeakers.com), Wed am – "A Different Kind of Prescription" (**Neha Sangwan** MD – CEO and Founder of Intuitive Intelligence – www.doctorneha.com), Wed pm – "Global Wellness: From the Individual, to the Community, to the Planet" Dr. Patrick Williams EdD MCC CWP - Founder Institute for Life Coach Training and Coaching the Global Village – www.coachtheglobalvillage.org and <https://www.youtube.com/watch?v=OtizqyEWgYg&feature=youtu.be>).

The NWI International Wellness Group, whom I represent on the NWI Board of Directors, facilitated the following conference sessions:

a/ 2x30min presentations each day:

Rosemary Marchese B. App Sci (Physiotherapy) – Australia – "The Fat Trap of Motherhood"

Luiz Sella MD, MPH – Brazil – "Residential lifestyle change program followed by telephone-based wellness coaching for weight loss"

Tabatha Kellett – Master of Teaching, BEd – Australia – "The *what when* and *how* to sustainable teacher wellness"

Dr Dorian Dugmore – UK - "From Shop Floor To Top Floor".

Tiffany Lazic BAA, RIHR, RP – Canada – "Seasons, Psyche, and Energy Psychology"

Alejandro Lobo President of the Mexican Institute of Comprehensive Prevention – Mexico – "Mexican Corporate Wellness Awakens"

b/ A lunch time NWI International Wellness Community Forum:

Speaker and facilitator - Tracy Washington PhD MA BA - Australia - “Designing Cities for HEALTH & WELLNESS, Lessons about Liveable Cities around the World”

The annual awards presented at the Conference included:

Michael P.O'Donnell PhD MBA MPH - Halbert L. Dunn Wellness Award –NWI's most prestigious award – presented to recipients for a dedication to wellness over the course of their lifetime, making many significant contributions and offering leadership that furthered the field of wellness.

Aldrenna Williams DrPH and Karen Wolfe MBBS (Syd), MA – Lifetime Achievement Award – presented to individuals who have an outstanding history of service both to the wellness industry and to the National Wellness Institute

Shanen Aranmor MS; Billie Francis LMF,CWP, BC; Laura Putnam MS and Jim Strohecker – Circle of Leadership Inductees – in recognition of outstanding individuals and organisations for their contributions to the field of wellness and NWI and its mission.

Seventy conference sessions were recorded and are available for purchase from www.intelliquestmedia.com/store

At the NWI Board of Directors meeting held the day following the conference we farewelled long time stalwart Anne Abbott from the Board and welcomed new Board members **Eirasmin Lokpez-Cobo MA** and NWIA's own Vice President **Dr.Tom Cuddihy**. Co-Presidents for the previous 2 years **Dr John Munson** and **Prof Meg Jordan** stepped down back to Board membership and we welcomed the new President **Dr. Alida Moonen**. Included in the many decisions voted one was the elevation of the NWI International Wellness Group to full Standing Committee status. One of the first tasks of this Committee will be to define the policies and criteria to assist International applicants for assistance in developing and establishing wellness organisations/institutions in their countries.

The date of the 42nd National Wellness Conference in the same venue is June 17-21 2017 and the theme is “Cultivating Cultures that Flourish: Foundations and Innovations in Wellness Promotion”.

The call for 2017 session proposals will be announced next month and close the month after that – consider submitting to present. If not wishing to present put the dates in your calendar to attend.

I am happy to provide any further information about the conference (bobbyd4@bigpond.com) and I am sure other NWIA members who have attended/presented will be as well.

Stay true to your personal wellness lifestyle this winter.

Cheers



Bob Boyd
NWIA President

Quote for the month



Is Zika A Substantial Risk For Visitors To The Rio De Janeiro Olympic Games?

On May 20, 2016, 150 physicians, bioethicists, and scientists from several countries (including Brazil) posted an open letter suggesting WHO Director-General Margaret Chan exert pressure on Olympics authorities to delay or relocate the Rio de Janeiro Games because of public health concerns over the risk of Zika virus infection for tourists and athletes.

The same concern was raised in 2013 about the risk of dengue infection for tourists and athletes intending to travel to Brazil during the 2014 World Cup. At the time we estimated that the individual risk of dengue for visitors would vary from around 6×10^{-5} to around 4×10^{-4} ,¹ which represented an expected number of infections among tourists between three and 59 cases. The reported number of dengue cases among tourists after the Games was three.²

Here we provide a risk estimation for tourists and athletes intending to visit Rio de Janeiro during the summer Olympics in August. *Aedes* mosquitoes have a strong seasonal pattern with highest abundance in the summer months (from January to February in Rio de Janeiro) and lowest in the winter (from July to August), and Burattini and colleagues³ estimated the individual risk of being bitten by an *Aedes aegypti* mosquito in Rio de Janeiro during the 3 weeks of the Olympic Games at 3.5×10^{-2} . The individual risk of dengue infection for tourists in the same period was estimated by Ximenes and colleagues⁴ to be about 5×10^{-4} . Although the actual numbers of Zika virus infection in Brazil are still unknown, it is estimated between 500 000 and 1.5 million cases of infection,⁵ with these estimates, we calculated the risk of infection in August to be between 9×10^{-6} and 3×10^{-5} .⁶ The risk of Zika virus

infection is therefore more than 15 times less than that for dengue.

Although the risk of Zika virus infection during the time of the Olympic Games is extremely low, we think that pregnant women should avoid visiting any region of the world where Zika virus circulation has been reported, including Rio de Janeiro, a recommendation in line with international and national public health guidelines.^{7, 8}

For the **open letter** see <https://www.washingtonpost.com/news/to-your-health/wp-content/uploads/sites/26/2016/05/Zika-Olympics-Open-Letter-to-WHO-current2.pdf?tid=ainl%22open%20letter>

[http://thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)30842-X/fulltext](http://thelancet.com/journals/lancet/article/PIIS0140-6736(16)30842-X/fulltext)



Cosmopolitan Snow Algae Accelerate The Melting Of Arctic Glaciers

The role of red pigmented snow algae in melting Arctic glaciers has been strongly underestimated, suggests a study to be published in *NATURE Communications* on June 22. White areas covered with snow and ice reflect sunlight; the effect is called albedo. It has been known for quite some time that red pigmented snow algae blooming on icy surfaces darken the surface which in turn leads to less albedo and a higher uptake of heat. The new study by Stefanie Lutz, postdoc at the German Research Centre for Geosciences GFZ and at the University of Leeds, shows a 13 per cent reduction of the albedo over the course of one melting season caused by red-pigmented snow algal blooms. "Our results point out that the "bio-albedo" effect is important and has to be considered in future climate models", says lead author Stefanie Lutz.

The red snow phenomenon occurs mainly in warm months. During late spring and summer, thin layers of meltwater form on ice and snow in the Arctic and on mountains. Liquid water and sunlight are crucial for the growth of snow algae; over the winter season they fall into a dormant state.

In their study, the team led by Stefanie Lutz and Liane G. Benning investigated the biodiversity of snow algae and other microbial communities using high-throughput genetic sequencing. They took about forty samples from 21 glaciers in the Pan-European Arctic. The sampling sites ranged from Greenland over Iceland and Svalbard to the north of Sweden.

Together with UK colleagues they found a high biodiversity within the bacteria, depending on the locations they lived, whereas the biodiversity of the snow algal communities was rather uniform. In other words: Throughout the Arctic regions, it is most probably the same algal species that cause red snow and thus accelerate melting. The blooming leads to a runaway effect: The more glaciers and snow fields thaw the more algae bloom which in turn results in a darkening of the surface which again accelerates melting. Liane G. Benning, head of the GFZ's section „Interface Geochemistry", says: „Our work paves the way for a universal model of algal-albedo interaction and a quantification of additional melting caused by algal blooms."

For years, "bio-albedo has been a niche topic", says Daniel Remias, biologist at the Fachhochschule Wels, Austria. The snow algae specialist comments on the study: "For the first time ever, researchers have investigated the large-scale effect of microorganisms on the melting of snow and ice the Arctic." Remias visited the GFZ for an international snow algae meeting organized by Liane G. Benning.

He stresses the interdisciplinary approach of the project: "Steffi Lutz' and Liane G. Benning's study for the first time combines microbiological and genetic analyses of red snow algae with geochemical and mineralogical properties as well as with the albedo of their habitat." An international, UK led team, including the GFZ's researchers will work this summer on the Greenland Ice Sheet where currently a record-breaking melting rate due to high temperatures is observed. Steffi Lutz, Liane G. Benning and UK colleagues will investigate whether and to what extent pigmented algae contribute to the record melting. <http://www.gfz-potsdam.de/>



Scientists Find 2 Ways To Limit The Number Of Heat-Related Deaths From Climate Change

New model shows that reducing fossil fuel emissions and improving adaptation efforts can reduce heat-related deaths in New York City

By the 2080s, as many as 3,331 people could die every year from exposure to heat during the summer months in New York City. The high estimate by Columbia University scientists is based on a new model--the first to account for variability in future population size, greenhouse gas trajectories, and the extent to which residents adapt to heat through interventions like air conditioning and public cooling centers. Results appear online in the journal *Environmental Health Perspectives*.

Researchers project that as many as 1,779 annual heat-related deaths could be avoided if the climate adheres to the more moderate of two greenhouse gas trajectories--known as representative concentration pathways 4.5 and 8.5. High levels of adaptation could save an additional 1,198 lives.

"We know climate change is creating more days of extreme heat, putting more people at risk for death in the coming decades," says first author Elisaveta P. Petkova, project director at the National Center for Disaster Preparedness at Columbia University's Earth Institute. "Our study shows that many of these deaths can be averted by limiting greenhouse gas emissions and pursuing measures to help people adapt to high temperatures."

"This model may be useful to advocates and policymakers as they pursue efforts to prevent the worst effects of climate change," adds senior author Patrick Kinney, director of the Climate and Health Program and professor of Environmental Health Sciences at Columbia's Mailman School of Public Health.

Projections are based on more than a century of temperature, population, and mortality data for New York City in conjunction with climate projections for the 2020s, 2050s, and 2080s using a set of 33 validated models. The risk of dying from heat-related causes was relatively constant during the first part of the 20th Century, then decreased dramatically from the 1970s to the 2000s, during which time the portion of households with air conditioning more than doubled, from 39 percent in 1979 to 84 percent in 2003.

Since air conditioning already so pervasive in New York City, adaptation efforts may be at or near their maximum effectiveness, the researchers caution. On the other hand, they say the city could grow even more resilient due to the ongoing efforts to reduce the urban heat island effect--for instance through programs to install reflective roofs and plant trees, as well as to protect vulnerable populations through heat warning systems and the availability of cooling centers. Societal factors like gains in overall population health and economic security also promote adaptation.

The researchers say follow-up studies could explore questions such as what extent demographic changes--especially a larger population of older adults--will have on heat-related mortality, and the effect of specific interventions related to adaptation and greenhouse gas reductions.

According to a report by the New York City Panel on Climate Change (NPCC), mean temperatures in the city by the 2080s may bear similarities to those of a city like Norfolk, Virginia, today. The middle range of projections show temperatures increasing 5.3°F to 8.8°F by the 2080s. The total number of hot days, defined as days with a maximum temperature at or above 90°F or 100°F, is expected to more than triple by the 2080s. Kinney and Petkova are both members of NPCC.

Co-authors include Jan K. Vink and Joe D. Francis from the Cornell University Program on Applied Demographics; Radley M. Horton and Daniel A. Bader from the Columbia University Center for Climate Systems Research; and Antonio Gasparrini from the London School of Hygiene & Tropical Medicine.

The research was supported by the Consortium for Climate Risk in the Urban Northeast, a grant from the National Institute for Environmental Health Grant (ES009089), and a fellowship from Medical Research Council (MR/M022625/1). <http://www.mailman.columbia.edu>.



Canada Spends Over \$400 Million On Medicine That Harms Seniors

Canada spends more than \$400 million annually on drugs prescribed to seniors even though the medicines should be avoided for older patients, according to new UBC research.

The study's authors conclude that the full cost to Canada's health-care system is closer to \$2 billion when hospital visits and other repercussions of inappropriate prescriptions are factored in.

"We're wasting vast sums of money on drugs that we know pose more risks than benefits for patients over 65 years of age," said Steve Morgan, a professor in the school of population and public health. "Canada urgently needs a national strategy to ensure that older patients receive only those medications that are appropriate for their health and for their age."

Physiological changes associated with aging alter the effects of many drugs, making some medications potentially inappropriate for older adults.

Using prescription claims data for 2013 in all provinces except Quebec, Morgan and colleagues looked for prescriptions filled by patients age 65 and older for medications listed as potentially inappropriate by the American Geriatrics Society. The list, known as the Beers List, is a well-established guide to help health care providers avoid medicines that pose greater risks than other available treatments for older patients.

The researchers found that 37 per cent of older Canadians filled one or more prescriptions on the Beers List in 2013. Women were more likely than men to fill such prescriptions. Sedatives were the leading contributors to both the frequency and cost of potentially inappropriate prescriptions among older Canadians.

Researchers advise that patients, families and health-care providers have more conversations about what sorts of medications an individual is taking and whether those medications are appropriate.

"We hope these findings help destigmatize discussions on medication use and that health-care providers make time for these important conversations," said Morgan. "We need to ask more questions like: 'Am I (or is my mother or father) on the right kind of medicine?'"

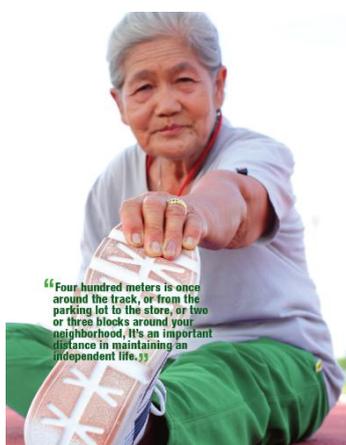
The researchers call for the creation of a national strategy on the appropriate use of medicines. Other countries, such as Australia, have done so and found that investing in better prescribing behaviour and medication use improves patient health while significantly reducing prescription drug costs and costs elsewhere in the health-care system.

Morgan believes that costs associated with developing a Canadian strategy on the use of medicines - estimated to be between \$40 to \$60 million for Canada - would be more than offset by the reduced cost of inappropriate prescriptions for older adults alone.

The study was published today in the *Canadian Medical Association Journal Open*.

Quick facts:

- 37 per cent: number of older Canadians filled one or more prescriptions not recommended for people older than 65
- 42 per cent: Women over 65 are more likely than men to fill a prescription not recommended for older people
- No. 1 medicine inappropriately prescribed to seniors: Benzodiazepines, also known as sedatives and used to treat insomnia and anxiety
- \$400 million spent annually in Canada on drugs prescribed to seniors even though the medicines should be avoided for older patients or \$75 per Canadian aged 65 and older
- \$1.8 billion: estimated full cost to Canadian health-care system of inappropriate prescriptions to older Canadians (\$1.8 billion = over \$400 million for the prescriptions and an estimated \$1.4 billion for health system costs)
- \$40 to \$60 million: the cost to develop a national strategy on the appropriate use of medicines in Canada.
- A national strategy would involve multiple policies of federal, provincial, and territorial governments to educate and empower patients and health professionals to make informed decisions and about the use of pharmaceutical and non-pharmaceutical treatments, and initiatives to monitor and evaluate prescribing patterns and health outcomes. <http://news.ubc.ca/2016/06/22/canada-spends-medicine-seniors/>



"Four hundred meters is once around the track, or from the parking lot to the store, or two or three blocks around your neighborhood. It's an important distance in maintaining an independent life."

For Women, Healthy Diets May Help with Mobility when Aging

In a large study conducted by at Brigham and Women's Hospital (BWH), researchers found an association between women who maintain a healthy diet and a reduction in the risk of developing impaired physical function as they age.

The findings are published online and will appear in the [July issue](#) of the *Journal of Nutrition*.

"Little research has been done on how diet impacts physical function later in life. We study the connection between diet and many other aspects of health, but we don't know much about diet and mobility," says Francine Grodstein, ScD, senior author of the study and a researcher in the Channing Division of Network Medicine at BWH. "We

wanted to look at diet patterns and try to learn how our overall diet impacts our physical function as we get older. "

Researchers examined the association between the Alternative Healthy Eating Index, a measure of diet quality, with reports of impairment in physical function among 54,762 women involved in the Nurses' Health Study. Physical function was measured by a commonly used standard instrument every four years from 1992 to 2008 and diet was measured by food frequency questionnaires, which were administered approximately every four years beginning in 1980

The data indicate that women who maintained a healthier diet were less likely to develop physical impairments compared to women whose diets were not as healthy. They also found a higher intake of vegetables and fruits, a lower intake of sugar-sweetened beverages, trans-fats, and sodium, and a moderate alcohol intake, were each significantly associated with reduced rates of physical impairment. Among individual foods, the strongest relations were found for increased intakes of oranges, orange juice, apples and pears, romaine or leaf lettuce, and walnuts. However, researchers noted specific foods generally had weaker associations than the overall score, which indicates that overall diet quality is more important than individual foods.

"We think a lot about chronic diseases, cancer, heart disease, and tend not to think of physical function. Physical function is crucial as you age; it includes being able to get yourself dressed, walk around the block, and could impact your ability to live independently," says Kaitlin Hagan, ScD, MPH, first author and a postdoctoral fellow at BWH.

Future research is needed to better understand dietary and lifestyle factors that influence physical function.

This study was supported by NIH grants (P01 CA87969 and UM1 CA186107), by an unrestricted award from the California Walnut Commission, and by training grant from the NIH (T32 AR055885).

http://www.brighamandwomens.org/about_bwh/publicaffairs/news/pressreleases/PressRelease.aspx?sub=0&PageID=2406



In Doctors We Trust – Especially When They Admit To Bias

A doctor's guidance may reassure us more than we realize –especially if she says she is likely to recommend treatment in her field of expertise, known as “specialty bias.”

Doing research in a real-world health care setting, a Cornell expert and her colleagues have found that when surgeons revealed their bias toward their own specialty, their patients were more likely to perceive them as trustworthy. And patients are more apt to follow their recommendation to have surgical treatment. [The research was published this week](#) in the Proceedings of the National Academy of Sciences.

The study has important implications for professional advisers of any stripe and policymakers who deal with disclosure rules, said Sunita Sah, a physician and assistant professor of management and organizations at Cornell's Samuel Curtis Johnson Graduate School of Management.

“If an adviser discloses a bias, it should alert the recipient to some uncertainty regarding the quality of the advice. ‘Perhaps I need to discount this a little bit.’ Disclosure of bias, if anything, should decrease the weight that patients

put on their physicians' recommendations," said Sah, an expert on conflicts of interest and disclosure. "But, instead, we find that patients report increased trust and they are more likely to take the physician's treatment than patients who do not hear their physician disclose a bias."

Sah and her colleagues based their findings on 219 transcripts of conversations between surgeons and male patients in four Veterans Affairs hospitals in which the surgeon revealed a diagnosis of localized prostate cancer to the patient. While discussing treatment options, some surgeons freely admitted to having a bias toward their own specialty, with statements such as, "I'm a surgeon, so I'm biased toward recommending surgery." Patients who heard their surgeon disclose their specialty bias were nearly three times more likely to decide to have surgery than patients who did not hear their surgeons disclose a bias.

The researchers also conducted a randomized lab experiment. In this study, 447 men watched video clips of an actor portraying a surgeon, who described two treatment options: surgery and radiation. In the "disclosure" group, the men heard the actor disclose his bias towards surgery, similar to the surgeons in the Veteran Affairs hospitals. The control group saw the same video, except for the bias disclosure. The men who heard the disclosure were more likely to choose surgery than the control group and reported higher trust in the doctor's expertise.

Sah and her colleagues also found that surgeons who disclosed bias toward their specialty or discussed a potential meeting with a radiologist oncologist for radiation treatment tended to give stronger recommendations for surgery.

"Bias disclosure can have a profound influence on adviser recommendations and the choices their advisees make," said Sah. "Professional advisers and policymakers should implement such disclosures with care."

<http://mediarelations.cornell.edu/2016/06/21/in-doctors-we-trust-especially-when-they-admit-to-bias/>



Providing Bite Count Feedback Helps Lower Calorie Intake

Wearable technology that allows people to monitor the number of bites they take could help people lose weight, reports the *Journal of the Academy of Nutrition and Dietetics*

New wearable technology is helping to provide novel weight loss tools. One way is by providing bite count feedback, which allows users to keep track of the number of bites during a meal. Researchers at Clemson University wanted to analyze how providing bite count feedback might influence eaters in different situations and determine its efficacy in the presence of environmental cues linked to overeating. The study found that people who received bite count feedback ate less and reduced their overall intake during a meal. The full results are published in the *Journal of the Academy of Nutrition and Dietetics*.

Investigators recruited young adults to consume a meal in the laboratory. In the first round, some subjects were outfitted with bite count feedback devices and given either a small or large plate. The group that received bite count feedback significantly reduced their intake regardless of plate size, although, those given larger plates still consumed more than those given smaller plates. Larger plate sizes have been positively linked to overconsumption. While providing bite count feedback helped mitigate the known influence of plate size, it was not enough to overcome it completely.

"It was found that the presence of bite count feedback led to a reduction in overall consumption. This finding is consistent with current literature that shows feedback on consumption leads people to consume less," explained Phillip W. Jasper, PhD candidate in Human Factor Psychology, Department of Psychology, Clemson University. "It was found that this type of feedback does not eliminate the effect of environment cues such as plate size. Individuals

may eat less when they receive bite count feedback, but feedback alone may not be sufficient in terms of helping them to take an 'appropriate' or 'normal' number of bites, particularly in the presence of large plates."

In the second round, subjects were given either a low-bite goal (12 bites) or a high-bite goal (22 bites) for their meal. Interestingly, both groups met their goals, but the low-bite group took bigger bites, which resulted in both groups having comparable levels of consumption. This revealed a complex relationship between bite count goals and energy intake. "It is possible that this compensatory behavior is intentional, a reaction to a perceived limitation such that participants believed 12 bites to be too restricting of a goal," noted Mr. Jasper. "In other words, in an effort to reach satiety while not surpassing the given goal, participants felt as though they needed to take larger bites than they typically would."

In order to effectively manage creating a realistic bite goal without making people feel like they need to overcompensate with bigger bites, investigators suggest helping patients establish a baseline level of bites across all meals plus snacks before setting any bite number goals. Following a thorough evaluation of typical behavior, practitioners can then work with patients to set personalized bite goals that are just slightly under their average, thus helping them to reduce intake through fewer bites without feeling like they have to overcompensate. "It is possible to reduce the number of bites and in an appropriate way so that individuals don't even know they're reducing their bites and their caloric intake. Over the timespan of an effective diet, that delta in energy intake really has a strong impact on overall weight gain and weight change," added Mr. Jasper.

Bite count feedback is an excellent weapon against the so-called "mindless margin," or the amount people eat without really thinking about it. By providing live insight into the number of bites, people will be more likely to stop eating when appropriately full and be more aware of what they're eating. "We want people to be mindful of what they're doing. That's what's really important. We want them to be mindful of their eating, and bite count feedback is a way to keep people mindful of their eating behaviors," explained Mr. Jasper.

New approaches such as providing bite count feedback can help people concerned with overweight and obesity eat less by providing them with external indicators of their energy intake. Knowing the number of bites is much less abstract than knowing the number of calories. "Self-monitoring is one of the cornerstones of successful weight loss," concluded Mr. Jasper. "By giving people bite count feedback, which is a good indicator for energy intake, they know how much they've had to eat or drink, they know their intake so they can better adjust their energy expenditure behaviors."

<https://www.elsevier.com/>



More Reasons To Eat Your Broccoli

Broccoli and related vegetables in the Brassica family are loaded with health-promoting compounds known as phenolics.

- Researchers have identified a large number of candidate genes controlling phenolic compound accumulation in broccoli.
- These genes will be used in future breeding programs to pack

even more phenolic compounds into broccoli and other Brassica vegetables.

Love it or hate it, broccoli is touted as a superfood, offering an array of health benefits. And it's about to get even more super.

University of Illinois researchers have identified candidate genes controlling the accumulation of phenolic compounds in broccoli. Consumption of phenolic compounds, including certain flavonoids, is associated with a lower risk of coronary heart disease, type II diabetes, asthma, and several types of cancer.

“Phenolic compounds have good antioxidant activity, and there is increasing evidence that this antioxidant activity affects biochemical pathways affiliated with inflammation in mammals. We need inflammation because it’s a response to disease or damage, but it’s also associated with initiation of a number of degenerative diseases. People whose diets consist of a certain level of these compounds will have a lesser risk of contracting these diseases,” explains U of I geneticist Jack Juvik.

The researchers crossed two broccoli lines and tested their progeny in terms of total phenolic content and their ability to neutralize oxygen radicals in cellular assays. They then used a genetic technique called quantitative trait locus analysis to search for the genes involved in generating phenolics in the most promising progeny.

By identifying the genes involved in accumulating these compounds, the researchers are one step closer to breeding broccoli and related Brassica vegetables like kale and cabbage with mega-doses of phenolic compounds.

“It’s going to take awhile,” Juvik notes. “This work is a step in that direction, but is not the final answer. We plan to take the candidate genes we identified here and use them in a breeding program to improve the health benefits of these vegetables. Meanwhile, we’ll have to make sure yield, appearance, and taste are maintained as well.”

The good news is that phenolic compounds are flavorless and stable, meaning the vegetables can be cooked without losing health-promoting qualities.

Once these vegetables are consumed, the phenolic compounds are absorbed and targeted to certain areas of the body or concentrated in the liver. Flavonoids spread through the bloodstream, reducing inflammation through their antioxidant activity.

“These are things we can’t make ourselves, so we have to get them from our diets,” Juvik says. “The compounds don’t stick around forever, so we need to eat broccoli or some other Brassica vegetable every three or four days to lower the risk of cancers and other degenerative diseases.”

The article, “QTL analysis for the identification of candidate genes controlling phenolic compound accumulation in broccoli (*Brassica oleracea* L. var. *italica*),” is published in *Molecular Breeding*. Lead author Alicia Gardner and Juvik are at the University of Illinois. Co-author Allan Brown is at the International Institute of Tropical Agriculture in Tanzania. The research was supported by a grant from the Hatch Multistate Project.

The article can be accessed online at <http://link.springer.com/article/10.1007/s11032-016-0497-4>.
<http://news.aces.illinois.edu/news/more-reasons-eat-your-broccoli>



Recipe Of The Month: Broccoli, Garlic And Rigatoni

By Mayo Clinic Staff

Dietitian's tip:

Broccoli is high in vitamins A and C, which are considered antioxidant vitamins. Broccoli also has isothiocyanates, indoles and flavonoids — phytochemicals that may help prevent cancer.

Serves 2

Ingredients

1. 1/3 pound rigatoni noodles
2. 2 cups broccoli florets (tops)
3. 2 tablespoons Parmesan cheese
4. 2 teaspoons olive oil
5. 2 teaspoons minced garlic
6. Freshly ground black pepper, to taste

Directions

Fill a large pot 3/4 full with water and bring to a boil. Add the pasta and cook until al dente (tender), 10 to 12 minutes, or according to the package directions. Drain the pasta thoroughly.

While the pasta is cooking, in a pot fitted with a steamer basket, bring 1 inch of water to a boil. Add the broccoli, cover and steam until tender, about 10 minutes.

In a large bowl, combine the cooked pasta and broccoli. Toss with Parmesan cheese, olive oil and garlic. Season with pepper to taste. Serve immediately.

Nutritional analysis per serving

Serving size: About 2 cups

- Total carbohydrate 63 g
- Dietary fiber 5 g
- Sodium 111 mg
- Saturated fat 2 g
- Total fat 7 g
- Trans fat 0 g
- Cholesterol 4 mg
- Protein 14 g
- Monounsaturated fat 4 g
- Calories 355
- Added sugars 0 g

<http://www.mayoclinic.org/healthy-lifestyle/recipes/broccoli-garlic-and-rigatoni/rcp-20049646>