

fall 2018

wellness matters



Choices for healthy living • nutrition • fitness • well-being • health



School Study Reveals Clues To **Success**

Behaviour in high school can reliably predict future success despite IQ or other factors that influence achievement, suggests a report in the *Journal of Personality and Social Psychology*.

Being a responsible student, expressing an interest in school and being good at reading and writing were all associated with achieving higher education, more prominent jobs and higher income decades later.

The study analysed data collected from 346,660 U.S. high school students in 1960 with followup surveys 11 and 50 years later, which revealed a significant association between good behaviour and greater career achievement.

Dr. Avis Glaze, an international education adviser, agrees that behaviour influences a student's future. Glaze, now living in Delta, B.C., worked with Ontario's education ministry to

implement a character development initiative in the province's schools.

"Many of the students who do well are individuals who have high motivation and a strong desire to learn," Glaze tells *Wellness Matters*. The good news is that this self-discipline can be taught. And strong support from teachers and parents helps foster student attitude and behaviour.

The study's findings were not surprising. Researchers and educators agreed that behaviour in school reliably predicted a student's future outcome. However, certain behaviours at crucial times may have greater impact and long-term effects than we realize.

Glaze says not to lose hope if grades aren't high. She believes if students have the qualities to assist themselves, regardless of IQ or high marks, "they will be stars in the workplace."

10 FAST FACTS

1 Underwater swimming is the only time you should hold your breath when exercising.

2 Walking at a brisk pace can burn almost as many calories as jogging.

3 You can't target fat loss: fat loss is systemic.

4 According to one study, people on average go to the gym twice a week.

5 Your brain can remember more than 50,000 different scents.

6 The skin of a kiwi is edible and loaded with fibre and vitamin C.

7 Cinnamon can enhance the delivery of nutrients to your muscles.

8 Almost one per cent of the population of the Western world is gluten intolerant.

9 Ginger can reduce post-workout muscle pain by up to 25 per cent.

10 Turkey, fish and cheese have the highest protein-to-calorie ratio.

Inside

3 Weighing in on Fats and Carbs

5 Bungee Cords Move into the Gym

7 In Praise of Work Naps



Crispy Roasted Cauliflower Popcorn

Serves: 4

This is the perfect way to satisfy your penchant for a crunchy snack while trying to eat more heart-healthy vegetables. Makes a great side dish, too.

Ingredients

- 1 medium head of cauliflower
- 1 large egg, lightly beaten with fork
- 2 tbsp canola oil
- 2 tbsp Parmesan cheese (or nutritional yeast flakes)
- $\frac{3}{4}$ cup brown rice crispy cereal crumbs, or whole-wheat breadcrumbs

Instructions

- Preheat oven to 425F. Line a large baking sheet with parchment paper.
- Wash cauliflower, remove leaves and break into pieces slightly larger than popcorn.
- In bowl, combine egg and canola oil.
- In another bowl, place the cereal or breadcrumbs. Add the Parmesan or yeast flakes and combine.
- Dip each piece of cauliflower in the egg-oil mix and then into the crumbs to coat.
- Place cauliflower pieces in a single layer on the baking sheet.
- Roast for 20 minutes. Turn the pieces over and continue roasting for an additional 20 minutes or until golden and crispy.

Optional: serve with a yogurt-based dip like ranch or dill.

Creative Cauliflower Cuisine

Originally a must-have vegetable for its membership in the cruciferous vegetable family—the superstar group that includes broccoli, cabbage, Brussels sprouts and other antioxidant, fibre-rich fresh vegetables—cauliflower has so much to offer.

With only about 30 calories and 5 grams of carbohydrate per cup of raw cauliflower, it provides valuable potassium, vitamin C and even contributes 2 grams of protein. It is very versatile with many delicious ways to easily meet the goal of having at least half your dinner plate full of vegetables.

Steamed and mashed or put through a potato ricer kitchen gadget, it makes a very low-calorie substitute for rice or mashed potatoes. Riced cauliflower can also be mixed with eggs to make a vegetarian, low-carb pizza crust. The whole head of cauliflower can be cut into thick slices, drizzled with a little vegetable oil and sea salt and grilled as you would a steak. It's delicious in classic dishes like warm, curried vegetables, a sesame soy stirfry, or even marinated in a vinaigrette to add to a salad.

A super easy, always impressive way to serve cauliflower is in popcorn form. The recipe here guides you in making a dish that's perfect as a side to just about anything or can be combined with cooked lentils to make a yummy, vegetarian filling for tacos. This recipe is shared courtesy of canolainfo.org.

"If you're afraid of butter, use cream."

— Julia Child, chef

We know that a healthy diet during pregnancy is vital for a baby's well-being. Now it's been shown that what an expectant woman eats affects her child's chances of acquiring eczema and certain food allergies.

The study, published in 2018, is one of the largest ever into how a pregnant woman's diet affects her baby's allergy and eczema risk. Researchers from Imperial College London found that the risk of egg allergy dropped by 30 per cent when women took a daily fish oil capsule from 20 weeks of pregnancy, as well as during the first three to four months of breastfeeding. Research suggests fish oil may dampen the immune system and prevent it from overreacting to harmless substances when the fish-oil supplement contained a standard

dose of omega-3 fatty acids.

Contrary to some thinking, the early introduction of eggs in a child's diet did not reduce the risk of this type of allergy; neither did food diversity in infancy.

The meta-analysis also concluded that the likelihood of a child developing eczema fell by 22 per cent in women who took a daily probiotic supplement from 36 to 38 weeks during pregnancy, and during the first three to six months of breastfeeding. (Probiotics taken

earlier in pregnancy could have adverse effects.) The probiotic supplements consisted of such good bacteria as *Lactobacillus rhamnosus* at a dose of 1 to 10 billion colony-forming units per day.

Allergies are more common in people who suffer from eczema, a condition in which patches of skin become rough, inflamed and blistered.

"Our findings suggest that while infant diet may influence



immune development, maternal diet during prenatal life and lactation may have broader effects on the developing immune system," said authors Vanessa Garcia-Larsen and Despo Ierodiakonou.

Study Cites Link Between Pregnancy Diet and Allergies

Weighing in on Fats and Carbs

The latest trends in dieting have left those looking to lose weight with a conundrum of whether to go low-carb or low-fat.

It turns out neither approach wins.

A recent Stanford University School of Medicine study found that weight changes over a full year among more than 600 overweight adults were insignificant between those following a low-carbohydrate diet and those eating less fat.

Aged 18 to 50, the men and women in each group lost on average between five and seven kilograms.

In the study's first eight weeks, participants limited their daily carbohydrate or fat intake to 20 grams, which is the equivalent of about 1.5 slices of whole-wheat bread or a generous handful of nuts, respectively.

Then they were allowed to make small, gradual adjustments, adding back

five to 15g of healthy carbs or fat. At the end of the year, those on a low-fat diet reported a daily average fat intake of 57g, while those on the low-carb diet ingested about 132g of carbohydrates per day.

Those levels were lower overall than what people were consuming before the study began: about 87g of fat a day and 247g of carbs.

While neither diet outdid the other, there was also tremendous variability among participants' weight: some lost nearly 27kg, while others gained as many as 9kg.

The researchers are now looking into the way other factors, such as a person's microbiome (the collection of bacteria and microbes living in and on the body) contribute to weight.

Eating whole foods, lots of vegetables, and less refined flour and sugar, as well as eating smaller portions, is always a healthy approach to losing weight.

LOW-FAT FOODS

- Whole-grain foods, such as oats and higher-fibre versions of pasta, rice and bread
- Lean meats, such as skinless chicken and turkey
- White fish
- Reduced-fat dairy, skimmed milk and low-fat yogurt and cheese
- Vegetables
- Lentils

LOW-CARB FOODS

- Beef, lamb, pork, chicken. (Grass-fed is preferred.)
- Salmon, trout and haddock. Wild, not farmed, fish is preferred.
- Eggs
- Almonds, walnuts, sunflower seeds
- Cheese, butter, heavy cream, yogurt
- Coconut oil, olive oil and cod liver oil.



"Get busy living, or get busy dying."

— Stephen King, author

Research shows everyday activities—such as taking the stairs or washing windows—can offer health benefits and protect the heart.

The study, which included researchers from Simon Fraser and McMaster universities, collected data from more than 130,000 people in 17 countries. They compared the effects of recreational and non-recreational physical activity on low- to high-income participants, aged 35 to 70. A 6.9-year followup period assessed mortality and cardiovascular disease rates.

The lead researcher, Dr. Scott Lear, professor of Health Sciences at Simon Fraser University, says the study confirms that any physical activity, whether at home, work or the gym, contributes to reducing the risk of early death or heart disease and stroke.

Lear, who also conducts research at Vancouver, B.C.'s St. Paul's Hospital, says this study is one of few to include non-leisure time activities, such as walking to work or vacuuming.

Participants showed improvement in important health factors such as cholesterol, blood pressure, blood sugar control and mental well-being.

"It didn't matter if that activity came from being active during leisure time or at work,"



Lear tells *Wellness Matters*. He adds that even lower intensity and duration of the activity offered risk reduction—although lower intensity activity levels aren't as effective to improve your health.

"More activity does offer greater benefits," confirms Lear. However, if you can't get the recommended 150 minutes of activity a week, Lear suggests moving more often throughout the day: at home, at work and in your leisure time.

WORKING IT

In these household chores, the activities can burn calories in the range from 11 to 300 calories per hour, depending on the length of time and intensity. Here are the muscles that get worked:

Mopping floors: Shoulders and biceps

Painting: Arms and core muscles

Gardening: Arms, back and legs

Cleaning gutters: Shoulders, upper back, arms and legs

New Bots on the Block

Worried about a robot takeover? You will not be pleased to hear that automatons are ready to get pumped up as robots may be coming to a gym near you.

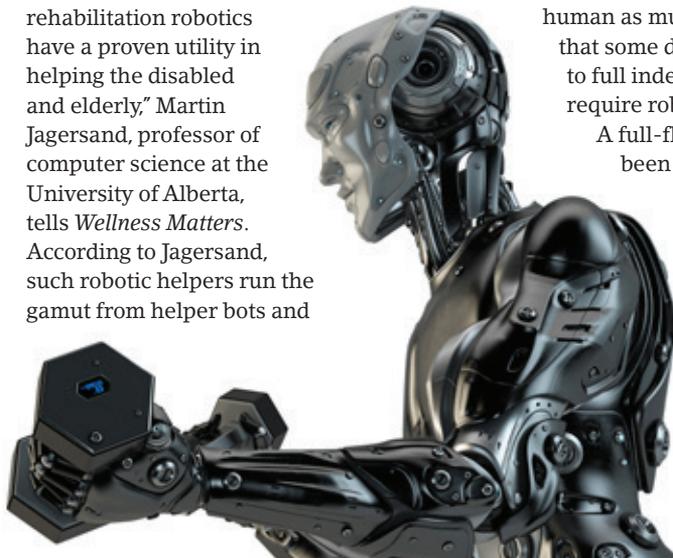
Of course they claim to come in peace. Bandit, for example, is a robot that is designed to help lead seniors as well as stroke victims through repetitive upper-body exercises. Bandit not only demonstrates the moves but can offer feedback on how the human subject is doing.

Other robotic assistants for stroke victims are the Manus and Anklebot devices, developed by scientists at Massachusetts Institute of Technology. These mechanical

assistants strap onto the arm or the ankle to help patients redevelop motor skills.

"Human assistance and rehabilitation robotics have a proven utility in helping the disabled and elderly," Martin Jagersand, professor of computer science at the University of Alberta, tells *Wellness Matters*.

According to Jagersand, such robotic helpers run the gamut from helper bots and



rehab bots, to a combination thereof.

"Combining the two means helping with daily tasks in a way that rehabilitates the human as much as possible," he says, adding that some disabled people cannot be trained to full independence, but will continue to require robotic aid.

A full-fledged exercising robot has also been created, although you probably won't see this one running on

the next treadmill. Kengoro is the creation of University of Tokyo researchers that runs, does situps and stretches. Surprisingly Kengoro was not designed to make you feel inadequate at the gym, but to help robotic designers and engineers better understand human movement.

"Life is trying things to see if they work."

— Ray Bradbury, author

Core Values

Trying to attain defined six-pack abdominals might be a difficult goal, but improving core strength is something that anyone can work toward.

Since there's so much focus on appearance, the deeper and more important benefits of core exercises are often overlooked. In fact, a strong core helps with everyday functioning and fitness.

The word core usually makes people think of that chiselled six-pack. Those large, outer abdominal muscles are more accurately known as rectus abdominus. But the core also consists of muscles of the back (including those that run along the spine, called the erector spinae), sides of the torso (obliques), and along the lower abdominal floor (transversus abdominis).

Together, all of these muscles work to act as stabilizers for the entire body.

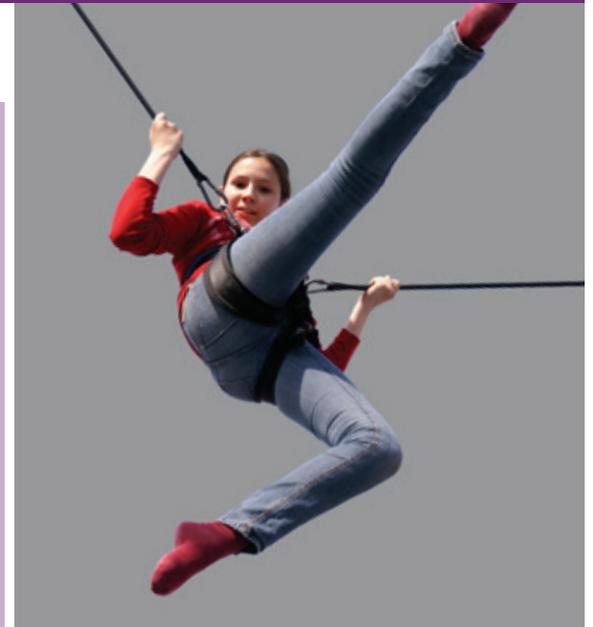
Weak core muscles can cause lower back pain and contribute to poor posture and a variety of secondary problems. And while strong core muscles can help elite athletes gain a competitive edge, they also enable people to do all sorts of crucial, everyday movements, like lifting, bending, reaching, twisting and getting up and down.

A stronger core means better agility, whether it's skiing, cycling, playing tennis or golf, doing yoga, housework, mowing the lawn, shovelling snow or gardening. To strengthen your core, be sure to do more than situps, which only target the outer muscles.



3 GREAT CORE EXERCISES

- **Russian twists:** From a seated position with knees bent, hold a weight with both arms for resistance. Twist your torso to the right side until your arms are parallel with the floor. Move back to the starting position and then move to the opposite side. Perform slowly to a count of 1-2-3 to each side. Avoid quick, ballistic movements.
- **Side jackknives:** Lying on your right side and keeping your left leg over your right one, place your right hand in a comfortable spot and clasp your left hand behind your head. Bring your torso and left leg toward each other as you pull with your obliques. Repeat on the other side.
- **The plank:** Start on your hands and knees, then walk your hands forward and lift your knees until your shoulders are straight over your arms until your body is off the ground and flat like a plank. Hold the position for a count of five and work up to one minute.



Bungee Cords Move into the Gym

Move over, Zumba. There's a new fitness format springing forth in Canada: bungee workouts.

The classes don't involve jumping off a bridge dozens of metres above ground but take place in a typical studio or gym. Each participant is strapped into a hip harness that clips onto a bungee cord suspended from the ceiling.

From there, people jump into the air, dive downward and propel themselves into superhero-style moves, always being pulled back to their starting position by the rubber cord. It's a combination of acrobatics, dance and action movie-inspired sequences.

While being in a kind of Jolly Jumper for adults is a ton of fun, bungee classes are also deceptively challenging. Besides getting the heart pumping for a cardio workout, all those gravity-defying moves require the abdominal muscles to engage and kick into high gear. The farther you move from your anchor point, the more resistance you experience from the cord, and it takes core strength to travel, whether you're doing deep squats or side-to-side shuffles.

The core-focused workout is low-impact, meaning it's gentle on the joints. Suspended above the floor, people are able to perform moves that would normally be impossible, such as one-handed pushups or floating, mid-air crunches.

If nothing else, the classes eliminate the boredom that gym-goers often grapple with. When it seems like you're training for the circus, you forget you're working hard and exercising.

"Success is how high you bounce after you hit bottom."

— George S. Patton, U.S. army general

Fuel for Body and Mind

Of all the diets out there, some are more legitimate than others. One, known as DASH (Dietary Approaches to Stop Hypertension), has been shown to help reduce the risk of heart attack and stroke.

Now it appears that DASH may also diminish the risk of developing depression.

The diet is high in fruits, vegetables and whole grains, as well as nuts and beans, lean meats, fish and poultry. Like other healthy eating plans, it avoids dairy products that are high in sugar and saturated fats in favour of those that are fat-free or low-fat.

Recent research from Rush University Medical Center in Chicago examined the effects of the DASH diet compared to Mediterranean and traditional Western diets on almost 1,000 people with an average age of 81 for an average period of 6.5 years.

Participants were assessed yearly for symptoms of depression, such as whether they were bothered by things that didn't normally affect them, or feeling hopeless about the future.

Those who stuck most closely to DASH had an 11-per-cent lower risk of developing depression than those who followed it the least.



By contrast, people who closely followed a Western diet—which is high in saturated fats and red meats and low in fruits and vegetables—were more likely to develop depression.

“Depression is common in older adults and more frequent in people with memory problems, vascular risk factors such as high blood pressure or high cholesterol, or people who have had a stroke,” the study’s lead author, Dr. Laurel Cherian, a vascular neurologist and assistant professor in Rush’s department of neurological sciences, explained in a release.

“Making a lifestyle change, such as changing your diet, is often preferred over taking medications, so we wanted to see if diet can be an effective way to reduce the risk of depression.”

A Fat-Burning Brain Switch?

Yo-yo dieting is hard on a person’s body and mind. The term describes the act of taking off weight and putting it right back on again in a

vicious cycle. Besides potentially leading to binge eating to make up for feelings of being deprived, yo-yo dieting can also result in a sense of frustration or failure.

Also known as weight cycling, yo-yo dieting could come to an end with new research out of Australia’s Monash Biomedicine Discovery Institute. Scientists there recently discovered a molecular switch in the brain that regulates fat burning, which could help people control weight

gain after starting a diet.

With yo-yo dieting, the body interprets long periods of weight loss as famine. The body ends up storing fat for survival rather than burning it, which is why so many people end up gaining weight again.

Researchers at Monash identified a protein in the hunger-processing brain cells of mice that regulates fat storage after dieting. This protein is the “switch” that instructs the body to replace the lost weight through increased fat storage.

“Manipulating this protein offers the opportunity to trick

the brain and not replace the lost weight through increased appetite and storage of fat,” Monash researcher and associate professor Zane Andrew said in a statement. “By regulating this protein, we can ensure that diet-induced weight loss stays off rather than sneaking back on.”

In the meantime, ways to stop yo-yo dieting include making small, gradual changes to your diet, staying focused on the long term and being easy on yourself when days don’t go according to plan. Keeping stress levels down and activity levels up are important, too.



“The energy of the mind is the essence of life.”

— Aristotle, philosopher

Sorry Mr. Dithers, but it turns out Dagwood Bumstead was ahead of his time. The hapless comic-strip drudge who has been snoozing at his office desk for decades is now a trendsetter as more workplaces are discovering the benefits of nap time for employees.

Corporations like Google and Procter & Gamble have introduced nap pods into their corporate environments, allowing employees to catch a few winks during office hours. At the huge Nike headquarters near Portland, Ore., employees are encouraged to use the quiet rooms to chill and snooze during the workday.

In European societies, such as Italy and Spain, the average day is built around a planned afternoon break. Global retailing trends have eroded that tradition in favour of a solid eight-hour workday, but more companies now seem to be discovering the wisdom of the siesta.

Dr. Sara Mednick, associate professor of psychology at the University of California Riverside, author of *Take a Nap! Change Your Life*, says that when it comes to improved performance, naps can be as beneficial as a good night's sleep.

Mednick says that people have a biological need for an afternoon nap, which should be taken at about 2 or 3 p.m. Mednick explains that

the time of the nap is important as it coincides with the time when most humans and animals experience what is called a post-prandial dip, or low ebb, when many of us actually feel sleepy.

A nap can range from 20 to 90 minutes. The results should benefit both you and your employer. Just try not to do it during a meeting.



In Praise of Work Naps

BENEFITS OF NAPPING:

- Increases alertness.
- Improves learning and working memory.
- Can prevent burnout and helps combat information overload.
- Can heighten creativity.

Online Therapy is Gaining Ground

There are few procedures as deeply personal as therapeutic counselling. It's not the sort of thing that gets dropped off at your door by an Amazon drone. Yet increasingly, therapy is going online.

"The online therapy field is growing," says Vancouver-based therapeutic counsellor Andrea Papin. "Many counsellors are now offering Skype sessions and there are services that specifically make counsellors available through email, live messaging and audio messaging. There are many apps now that make this accessible," she says.

"People who typically seek out online therapy are those who want to pay less, are maybe worried about the stigma associated with therapy and who aren't comfortable with or able to leave the house easily."

Online therapy is not necessarily a complete replacement for the traditional face-to-face variety.



"For some people it's a complement to in-person therapy," Papin says. "There's a certain level of intimacy and connection that can't be imitated through technology. A therapist can read a person's body language, facial expressions and tone of voice best in person."

A 2015 British report published in Oxford University Press concluded:

"Internet-delivered cognitive behavioural therapy (CBT) with some input from a therapist was found to be as clinically effective as face-to-face CBT and more cost-effective."

For people with an attachment issue, face-to-face therapy can seem very scary and threatening, Papin says.

"Online can be a good place to start to develop a bond before they feel ready to venture beyond that."

Papin cautions patients to check credentials of online therapists. "Make sure to ask if the software they use is encrypted and what types of training they have received."

"Life is like riding a bicycle. To keep your balance, you must keep moving."

— Albert Einstein, physicist

Toddlers Engaged, Despite Precautions

More than half of parents in a recent survey say they allow their toddlers to use electronic devices despite the Canadian Pediatric Society's recommendation to ban all screen time for children aged two and under.

University of British Columbia nurses surveyed parents at Vancouver community health centres in February and about 40 per cent said they allowed children aged two and under 30 minutes of screen time daily. And 17.5 per cent allowed an hour or more.

The results weren't surprising: television and electronic devices conveniently occupy children while parents finish chores and cope with busy workdays. And many people believe that screen time helps develop their child's language skills. However, studies prove it can interfere with a young child's language development. It may also interfere with a child's getting adequate sleep.

Reda Wilkes, study co-author and public health nurse with Vancouver Coastal Health, says that kids should be constantly moving but screen time reduces activity. This may create future poor lifestyle habits.



The Canadian Paediatric Society suggests setting family rules, such as no screen time during meals, while in a vehicle or before bedtime, for example. If distractions are needed, use books, games or crafts instead. The society also advises parents to set a good example with their own use of electronic devices.



Give it a Dry

There have been some major scientific controversies over the years but few to match this epic battle. The issue: Are air dryers more sanitary than paper towels?

A study published in the *Journal of Applied Microbiology* compared three forms of hand drying: paper towels, warm air dryers and jet dryers. To be clear, the study did not examine which method leaves hands free of viruses, but which method propelled viruses out into the surrounding environment. The finding? Jet dryers sprayed viral clumps around the room and up to three metres away. Paper towels distributed the fewest viruses.

But not so fast. Dyson, makers of the Airblade jet dryer, has said this 2016 study was funded by paper-towel companies.

Jason Tetro, a.k.a. "The Germ Guy," is a visiting

scientist at the University of Guelph and the author of the bestseller, *The Germ Files*. He says: "Paper towels will prevent spread simply as a matter of their function, which is to absorb the water. Air dryers will spread bacteria, viruses and fungal spores. But the amounts are minimal in comparison to what is required to cause most infections."

Regardless of which drying method you use, Tetro says the best option is to follow drying with 15 seconds of rubbing with an alcohol-based hand sanitizer to ensure your hands are safe.

Final word goes to Dr. Jennifer Gardy, assistant professor in the School of Population and Public Health at the University of B.C.: "I don't care whether there's an air dryer in place or a stack of paper towels. I just want people to be washing their hands. Period."

Wellness Matters is published quarterly by Canada Wide Media Limited. A French version (*pause santé*) is also available. Correspondence may be addressed to: CANADA WIDE MEDIA LIMITED, 230, 4321 Still Creek Drive, Burnaby, B.C., V5C 6S7. fax: 604.299.9188 website: www.wellness-matters.ca email: info@wellness-matters.ca

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