



## Why exercise? Here are 6 new reasons to hit the gym



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There are a number of reasons why people exercise, including health benefits, enjoyment, self esteem and social reasons. Most people know cardiovascular training strengthens the heart and lungs and that strength training builds muscles, but there are other benefits of exercise you might not realize. Although most people's goals are purely physical there is much more to exercise than the eyes can see. Here are 6 interesting facts about exercise you may have not heard before. Be sure to remember them the next time you don't feel like making it to the gym!

### 1. Exercise Can Improve your Sex Life

If this isn't enough motivation to put on your Nikes and go for a run I don't know what else to tell you! Research indicates that exercise may increase sexual drive, sexual activity, and sexual satisfaction. Results of a study in 2003 reported that women were more sexually responsive following 20 minutes of vigorous exercise. Among males, short intense exercise is linked with increased testosterone levels, which may stimulate sexual interest and behavior. It has also been demonstrated that men over 50 who kept physically active had a 30% lower risk of impotence compared with inactive men. Furthermore, a Harvard University study of 160 male and female swimmers in their 40s and 60s showed a positive relationship between regular physical activity and the frequency and enjoyment of sexual intercourse. Regular physical activity enhances health and improves overall appearance, both of which can boost aspects of sexuality. --- Are you half way out the door and on your way to the gym yet?

### 2. Aerobic Exercise Creates New Brain Cells

In a 2006 study by University of Illinois researchers, 30 healthy but sedentary men and women aged 60-79 were put on an aerobic exercise training program. After 6

months, their brain volume – the amount of grey and white matter- had increased. That meant more brain cells and more connections between them. Brain volume however did not increase in 30 similar people who participated in a stretching program. Aerobic exercise increases the supply of a protein called "brain-derived neurotrophic factor or BDNF, which protects brain neurons and promotes the growth of new nerve cells and synapses that are related to learning and memory. BDNF is active in the hippocampus, an area deep in the brain that is essential for memory. As people age the hippocampus tends to shrink but this and other related studies indicate that aerobic exercise may help offset this tendency. With a bigger hippocampus seniors are able to remain independent for much longer than those who have impaired spatial memory. Who knew that going for a simple walk could mean independence in your future.

### 3. Exercise Helps Fight Off Severe Effects of the Flu

It appears that exercise pain does have plenty of gain when it comes to fighting off the severe effects of the flu. A study by five Iowa State University researchers on mice infected with the flu virus suggests that a moderate workout

per day may diminish the severity of the flu's symptoms. The ISU researchers found that mice that regularly ran on a treadmill over a three-and-a-half month period developed less severe symptoms from the flu virus than those that were not subjected to exercise, and had less influenza virus in their lungs. The mice that regularly exercised showed lower levels of inflammatory factors in their lungs soon after being infected with the virus. The ISU researchers built upon their previous research and conducted the same study on human subjects who had been immunized with the flu vaccine. Subjects who participated in moderate exercise training for approximately one year had higher antibody levels in response to influenza vaccine than those subjects who remained sedentary. While this new study confirms the value of exercise on strengthening the immune system, they emphasize that moderate exercise has only been found to be beneficial before infection. So the key is to exercise before you get the flu – not during. Exercising while you are sick has not been proven to shorten the duration of your cold!

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### 4. Aerobic Exercise Reduces Visceral Fat

Visceral fat, which accumulates around the organs deep inside the belly, is linked to insulin resistance, heart disease, and diabetes. If a man has a hard, big belly, the odds are that he has a fair amount of visceral fat. In a 2005 study at Duke University Medical Center researchers reported that sedentary overweight men and women who followed an exercise program equivalent to a brisk 30-minute walk six times a week for 8 months stopped gaining visceral fat and if they did more exercise, the equivalent of jogging 32 kilometres a week they lost 7% of their abdominal fat. What's really eye opening about this study is that the people in the control group who were told not to increase their exercise had an increase of 9% in their visceral fat store in only 6 months. With age, you will gain visceral fat unless you do something to prevent it. Going for a simple walk could be saving your life by preventing visceral fat gains!

### 5. Exercise Improves Your Mood

A new study has shown that, as far as the mood-boosting abilities of physical exercise go, they are actually longer lasting than initially suspected. Working out during the day can considerably alter one's mood (for the better of course!) for up to 12 hours, according to researchers at the University of Vermont. Researchers divided two groups of student volunteers into two distinct groups: 24 students were asked to ride an exercise bike for roughly 20 minutes at moderate intensity, while another 24 did absolutely nothing for the same period of time. All of them were then asked to fill in questionnaires at regular intervals to evaluate their mood and how they felt in general. Even 12 hours after working out, the volunteers in the first group were in higher spirits than those who did not exercise at all. These findings of the study are all the more important in the cases of those who suffer from depression or acute stress. "Daily exercise can improve your mood and mitigate some of the stressors of your day. It's clear that exercise is critical for both physical health and mental health." Jeremy Sibold, an assistant professor at the Department of Rehabilitation and Movement Science said to USA Today. The study was presented recently

at the annual meeting of the American College of Sports Medicine – further research aims to show exactly what needs to be done to ensure the mood boosting effects of working out last as much as possible.

### 6. Sitting is Directly Related to Mortality

Peter Katzmarzyk, an MD at the Pennington Biomedical Research Center in Louisiana, and his colleagues tracked a representative sample of 17,000 Canadian adults who took part in a 1981 national Fitness Survey. Nearly half reported sitting for at least half of their waking hours. After 12 years, roughly 20% of those who said they sat "almost all of the time" had died, compared with 12% of those who sat "approximately half the time" and just 6% of those who sat "almost none of the time". And that was true for non-smokers as well as smokers, and the lean as well as the overweight or obese. This is the first study that has been able to show that sitting is directly related to mortality. There is still more research to be done but they believe that sitting for long periods of time leaves

muscles inactive and this may change the way people metabolize compounds which may affect the regulation of insulin and glucose. Dr. Katzmarzyk suggests that the simple act of standing up changes the physiology of the limbs so "stand up, walk around, do anything to encourage blood flow and increase muscle activity in the lower limbs". If it's a nice day outside take that coffee meeting to the streets and go for a walk – it could save your life!

If you would like more information of the studies presented in this article or need help incorporating exercise into your life please feel free to email me at [micaelafitness@gmail.com](mailto:micaelafitness@gmail.com)

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## Fitness, fatness and hysteria

An epidemic of physical fitness is breaking out among the 50-plus generation that should not go unnoticed in this time of near-hysteria about that other alleged epidemic, obesity.

Suddenly there are Canadians who at 50 are fitter than they have been in their adult lives. They are running marathons even after having heart attacks. They are competing in world bikini contests 10 years after being confessed "blobs." They are training five days a week. Pilates classes are thick with them. Canada has 2000 athletes in the World Masters Games in Australia this week, the most of any of the 95 visiting countries. The mythical 60-year-old Swede wouldn't stand a chance next to a 50-year-old Canadian.

This surge of exercise is not something created by government policy. It is in the air, and no white paper or board of health put it there. It is a phenomenon of baby boomers who wish to live forever, or at least to live as if they were young, at any age.

It only seems as if they are deluding themselves. Scientists say they may be right. Exercise slows the rate of muscle loss, joint stiffening and artery hardening. It reduces the risk of glaucoma. Even elderly couch potatoes who take up exercise in their 80s can live healthier and longer lives.

The active 50-plus generation may hold the key to solving the putative obesity epidemic among the young. They are doing what everyone else is only talking about. An they seem to be having fun at it. They seem committed to it. If they can do it (while also lowering the health costs of aging), maybe others will follow.

Smoking rates among young people did not drop during decades of lectures intended to frighten classrooms of impressionable students. Why? Because adults kept smoking. When adults gave up the noxious habit, youths followed.

The decline in smoking was a victory of public policy: No-smoking regulations made smokers accept that their habit was anti-social. But it convinced health advocates that the same could be done on obesity. It can't. Shunning smokers, or at least, smoking, was the right thing to do. Shunning the overweight and obese would be wrong, and harmful.

But fat is the new smoking, and the anti-

obesity crusaders have increasingly raised the pitch of their alarm. The obesity madness that grips North America and beyond has been manifest in accusations from the head of the United Nation Food and Agriculture Organization that heavy people's overeating causes the world's poor to go hungry; in calls in this country to prohibit advertising for junk food, and even ban mascots such as Tony the Tiger; and in unsubstantiated claims that the next generation may have a shorter life span than their parents.

The implied goal is that society should dedicate itself to wiping out all traces of fat. All the abhorrence of obesity has had little or no impact on the supposed epidemic, except to make obese children and teenagers feel worse than they may already feel. Thus do the health advocates bring on the very psycho-social consequences they claim to wish to avoid.

There is no utopia of the sleek and beautiful awaiting the world (what a boring utopia, anyway); urbanities will continue to rush from their desk jobs to McDonald's to children's soccer practice. The answer, as suggested by the outbreak of athleticism among those 50 and over, is a rebellion against sedentary days and couch-potatoism, which will sooner or later be taken up by the young as if they thought of it first.

Source : The Globe and Mail, Tuesday, October 13, 2009.



## Running Form - By Malcolm Balk



As I was I running today in the unseasonably warm sunshine this early in March, I glanced occasionally in a passing store window, checking out my form. Still. After more than 35 years of running. Why this obsession with form? Is it merely a severe case of vanity? Probably...I like to think I look good. But even more than look good I want to run 'good'. And as I enter the second half of my fifth decade, I'm aware that my speed 'savings account' is dwindling. And being a good Scot, I do not want to pay any fees that would further erode my savings. So every time I run, I am on the look out for over-striding and braking, hunching, heavy footfalls, tight shoulders, neck and facial strain, forcing the pace, muscling my stride, looking down etc... Quite a lot to think about but somehow if just seems to blend into the process. After many years of paying attention it has become almost second nature...things are noticed, released, adjusted and on we go. No big deal.

Reflecting on this I was reminded somehow of being in the car and my skill as a driver. In Montreal, the legal speed limit has been reduced to 50k and hour and 30 in school zones. Like many Montrealers I tend to drive too fast, way over the speed limit. The threat of photo radar and stiff fines have forced me to reconsider my driving habits. Yet I constantly find myself having to brake to get under the legal limit especially when my attention has lapsed and I'm back to my 'normal speed.' Why such a struggle to slow down. Technically very simple, just a matter of paying attention and easing up on the gas.

It's made me wonder what kind of a runner I'd be today if I ran the way I drive. ..injured a lot, that's for sure. Much more inconsistent. Struggling to find form in races and not really knowing where to start. . Not enjoying it as much because I'd be in a big hurry to get the work out over and done with. And worst of all, I'd probably look like a middle aged runner, heel striking pottering along with a bit of a gimp and a hump in my back.... ugggh. Horrible! Unthinkable!

Makes me wonder what people think of my driving!!

## Eat your greens, for your bones sake



Supplements, fruits and veggies may stave off osteoporosis, By Julie Beun

A combination of calcium and vitamin D may be just what the doctor ordered for osteoporosis patients, but a new study has found they could be exponentially more effective by adding common greens supplements.

The University of Toronto tissue culture study found that when compared to calcium supplements alone, some commercially available but highly concentrated nutritional supplements proved three to four times more effective at stimulating osteoblasts, or cells that build and repair the internal micro-architecture of bones.

In the study, which will have 'implications in the management of osteoporosis' says Leticia Rao, an associate professor of medicine and director of the Calcium Research Laboratory, researchers extracted minerals, water soluble vitamins, calcium and antioxidants from polyphenols (compounds that give fruits and vegetables their colour) from two commercial greens supplements, and compared their impact on osteoblasts to that of calcium alone.

The results surprised Rao: Although other studies have examined polyphenols, her findings showed that the extract stimulated osteoblast by 20 times; calcium alone boosted bone nodule growth sixfold. In normally functioning bones, calcium enters cells via osteoblast receptors, ushered along by vitamin D and K, which help proteins bind calcium and deposit it into the bone matrix. However, with osteoporosis, which affects one in four Canadian women over the age of 50 according to Osteoporosis Canada, osteoblast activity slows and can't keep pace

with the increased activity of other cells called osteoclasts, which tear bones down as part of the body's natural regeneration.

"Although calcium is positively associated with increased bone mineral density, there is also evidence to show that calcium alone is not sufficient," says Rao. "Several antioxidants, a number of which are obtained primarily through food such as fruits and vegetables and nutritional supplements, have been shown in both in vitro and clinical studies that they can counteract oxidative stress and prevent the risk of osteoporosis. In other words, it requires other nutritional components in increasing bone formation."

Those components, which Rao gathered from a combination of Bone Builder and Greens + products from British Columbia based company Genuine Health for her study, included three absorbable calcium sources, vitamins D, C and B, the antioxidant lycopene, magnesium, selenium, zinc, copper, manganese and the amine acid, L-Lysine.

The study replicates the spirit of another trial Rao recently conducted in which participants took either regular tomato juice or juice laced with additional lycopene, a powerful antioxidant found in red food like tomatoes. After four months, those drinking the laced tomato juice decreased their bone turnover and oxidative stress markers, and increased antioxidant status.

She says those over 50 who are at risk of osteoporosis should do load-bearing exercises such as weights, take 800 IU (International units) of vitamin D - which helps bones absorb calcium - along with 1,50 milligrams of calcium in three 500mg doses throughout the day as an antioxidant-

rich nutritional supplement. "It's really about somehow increasing your intake of polyphenols, absorbable calcium and vitamin D," she says.

Equally important is increasing calcium intake from food sources such as oily fish, lentils and broccoli, while reducing acid-forming foods like soft drinks, red meat, saturated fats, salts and sugars from your diet, says renowned health researcher and Genuine Health founder Sam Graci, who has worked with the William J. Clinton Foundation to ban soda and fast food from American elementary schools. "What we've found is that the more acidic the diet, the more bone loss you will suffer. Soft drinks and sugar are the worst for that," he says. "And it's not just that we eat too much meat, it's that we eat too few vegetables, so I always advise people to 'colour your plate' with two-thirds vegetables and salads, and one-third protein. Meat isn't the bad guy, but you have to temper and balance that acidity of it with the alkalinity of a plant-based diet.

"Aside from that, the biggest issue we face is that we're seeing a significant departure in bone growth in young people, many of whom have a sedentary lifestyle. Bones only build when they're stressed, and they only grow to the age of 24, so if we don't have that in place, they'll surely but slowly crumble over time."

Rao agrees that early attention to the issue is crucial. "The Canada Food Guide requires seven servings of fruits and vegetables but most of us don't eat the right amounts, right from the start. Osteoporosis doesn't just come with old age," she adds, "it starts at childhood."

