

The Alliance Update

www.alliancechiroandwellness.com

Spring 2021 Edition

Alliance Chiropractic &
Wellness Clinic
Chiropractic-Massage-
Naturopathic Medicine

**Health
Newsletter**

Summer Fit Tips

Source: Ontario Chiropractic Association; <https://chiropractic.on.ca/self-management/topic/at-home-spring-summer/>



In the summer months, we turn our attention to the great outdoors with activities such as golfing, gardening, or running. Being active can help you maintain your flexibility and good posture, build strong bones, and relieve stress. Recreational activities are a great way to enjoy these benefits while having fun. Whether you pick up a garden rake, a golf club or pound the pavement in running shoes, the important thing is to get moving. Remember to keep your back in mind as you gear up for a fun-filled summer.

Here are seven tips to keep your back healthy as you exercise and enjoy the great outdoors this summer:

Warm Up:

Before hitting the links or even the back garden, consider a short activity to warm up first, like going for a short walk. Make sure to do gentle stretches to limber up muscles and joints before lifting, digging, or swinging that golf club.

Learn the Proper Technique:

Learn the correct technique for your activity from the beginning. Poor technique can cause injury to joints and muscles. For example, be sure to kneel not bend, when planting your garden. For golfers, take professional lessons to rid yourself of bad habits in your golf swing that could hurt your back.

Maintain Mobility:

For muscles and joints to contribute to your athletic ability and help prevent injury. Restrictions in muscle and joint function can hamper your technique and lead to strains and sprains. If you are a runner, take the time to stretch out calf and thigh muscles before hitting the road.

Drink Fluids:

Drink plenty of fluids before, during and after physical activity. Remember that once you are thirsty, you are already starting to dehydrate. Dehydration affects your energy level and your physical functioning.

Don't Overdo It:

If you have a big day of yard work planned, consider breaking up different activities into smaller chunks to avoid overloading your body. With a return to summer sports, consider a smaller training session first rather than a longer one (i.e. a trip to the driving range before that first round of golf).

Cool Down:

Cooling down after any physical activity is just as important as warming up. Take 10 minutes and stretch out your muscles and joints before heading for the shower.

Treat Injuries Promptly:

If you suffer an injury or experience pain from your summer recreational activities, ice the area to reduce swelling and inflammation.

If pain persists, consult Dr. Morphet to help you with your recovery.

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Hormesis: Meet The Stress That Makes You Physically & Mentally Stronger

Source: <https://www.mindbodygreen.com/articles/hormesis>; Stephanie Eckelkamp



You know the old saying, 'What doesn't kill you makes you stronger'? Science has revealed that (at least in some situations) it is surprisingly accurate—even down to the cellular level.

We are talking about hormesis or the idea that short, intermittent bursts of certain stressors ("hormetic stressors") can actually trigger a cascade of cellular processes that enhance overall health, slow aging, and make you more resilient to future stress (both physical and mental). It is weird and fascinating, and one of the hottest areas of longevity research right now.

Unlike chronic stress that can wreak havoc on your health, hormetic stressors are controlled and acute stressors that trigger healthy adaptive responses. Below are examples of small, sustainable habit changes that can help you reap the benefits of hormesis:

1. Do workouts that challenge you.

High-intensity interval training (HIIT)—characterized by intermittent bursts of all-out effort for about 30 seconds followed by 15 seconds of rest—is one of the most efficient ways to experience hormesis. Any exercise that challenges you, whether it is an intense spin class or a boxing workout, is a good choice. You can alternate intense workouts with slower, restorative workouts like yoga.

2. Incorporate breath work into your routine.

While we need more research to flesh out the perks, holding your breath for as long as is comfortable from time to time may be a good way to experience intermittent hypoxia and improve lung capacity. You can do this when you are sitting at your desk or lying in bed. For a more subtle approach, try box breathing, which involves inhaling through your nose for four seconds; holding it for four seconds; exhaling through your mouth for four seconds; and then holding the exhalation for another four seconds.

3. Get out of your temperature comfort zone.

Saunas, hot baths, working out on a warm day, or even taking a hot yoga class are all ways to reap the benefits of heat. Sauna use specifically has been associated with reduced all-cause mortality risk; and periodic heat exposure, in general, can boost the expression of 'heat shock' proteins in the body, which may help strengthen the immune system and promote longevity.

Ice baths, cold showers, or even spending time outside when it is cold can be beneficial, too. Regular cold exposure has been shown to boost levels of certain immune cells, including cytotoxic T-cells, which play a role in killing virally infected cells and cancer cells, and can significantly boost the life span of certain animals.

4. Eat lots of colorful plant foods.

Even phytonutrient-rich plant foods can activate your healthy hormetic stress response—the term for this is xenohormesis. The glucosinolates in broccoli sprouts, for example, are thought to activate beneficial phase II detoxification enzymes. Other xenohormetic nutrients include curcumin from turmeric; resveratrol from berries and red grapes; allicin from garlic; quercetin from a variety of fruits and vegetables; and even green tea. Typically plants exposed to more stress in their environment will produce the highest levels of these beneficial compounds. A good general rule is to look for bright colours in fruits and vegetables.

5. Experiment with intermittent fasting.

Intermittent fasting puts your body into a perceived state of stress due to temporary nutrient deprivation. Fasting inhibits a cellular process called mTOR (mechanistic target of rapamycin), thus triggering a cellular cleanup process known as autophagy, which may contribute to better cellular health and longevity. The type of fasting you choose depends on a variety of factors, but you do not necessarily have to do anything too intense to reap the benefits. Consider confining your eating to an eight- or 10-hour window.

6. Engage in mentally stimulating and challenging activities.

Learning new skills, engaging in challenging mental work, and having a lot on your plate can also constitute hormetic stress. We often equate psychological or mental stress with being bad, but these challenges can stimulate some of the same cellular pathways mentioned above—and even generate brain-derived neurotrophic factor (BDNF), which promotes neuroplasticity. There's one big caveat, though—in order for you to reap the benefits from psychological stress, you need to feel like the stressor is manageable and that you are in control. If you feel helpless, the stressor becomes toxic.

Bottom line.

Hormesis is proof that healthy stress does exist. Intermittent doses of 'hormetic stressors' like cold exposure, intermittent fasting, and HIIT exercise can stimulate powerful cellular pathways that support overall health. These practices may help you become more resilient to life's physical and mental challenges.

Caffeine Before Exercise Helps You Burn Fat

Source: Medscape Carolyn Crist; March 24, 2021; J Int Soc Sports Nutr. 2021;18:5.



Taking caffeine — or drinking strong coffee — half an hour before aerobic exercise can increase fat-burning according to a new study published in the *Journal of the International Society of Sports Nutrition*. The effects of the caffeine are higher if the exercise is done in the afternoon rather than in the morning the study found.

As part of the study, 15 men (with an average age of 32) completed an exercise test four times at seven-day intervals. They took a 3 mg/kg dose (3 milligrams for every kilogram of their body weight) of green coffee bean powder, about the equivalent of a strong coffee, or a placebo dissolved in water. Each person completed the test under all four conditions in a random order and took the caffeine or placebo 30 minutes before each test at 8 a.m. and 5 p.m.

On test days, the participants took the caffeine or placebo and rested for 30 minutes before starting a cycling exercise. The research team standardized the conditions before each test, including the hours elapsed since the last meal, the consumption of stimulants, and physical exercise — and measured for the fat oxidation, maximum oxygen uptake, and exercise intensity.

Overall, the research team found that taking a dose of caffeine 30 minutes before an aerobic workout increased fat oxidation during exercise regardless of the time of day. At the same time, the rate of fat-burning was higher in the afternoon than in the morning for equal hours of fasting.

Compared to the placebo, caffeine increased fat oxidation by 10.7% in the morning and 29% in the afternoon. Caffeine also increased exercise intensity by 11% in the morning and 13% in the afternoon. The maximum oxygen uptake was also higher in the afternoon.

The authors concluded that a combination of acute caffeine intake and exercise at moderate intensity in the afternoon provides the best scenario for individuals seeking to increase whole-body fat oxidation during aerobic exercise.

Straighten Up Canada

Source: <https://chiropractic.ca/straighten-up-canada/>



How many hours a day do you spend sitting? Reading, using computers, driving, watching TV —all that sitting adds up — especially if you have poor posture. Did you know that lower back pain and other musculoskeletal conditions account for one third of missed work in Canada?

It is time to *Straighten Up Canada* and improve your spinal health.

Canada's chiropractors have developed an app — *Straighten Up Canada* is a FREE, easy-to-perform posture program that you can use in just three minutes a day. It is the only free Canadian app specifically designed and completely dedicated to improving posture and spinal health. You can find the app at <https://chiropractic.ca/straighten-up-canada/>

Straighten Up Canada exercises can be practised almost anywhere and is a great warm up, cool down, stand-alone routine or ergonomic break.

Good posture will help you:

- Look and feel even better than you already do,
- Prevent back aches and muscle pains,
- Decrease wear and tear on your joints,
- Use less energy for daily tasks, and
- Increase your spine's flexibility and resilience.

Straighten Up Canada app features:

- 12 unique posture exercises
- Adult and youth exercise options
- Easy to follow image stills and video content
- Tracking function
- Personal reminders
- Progress tracking
- Sharing progress with friends through social media
- Education about spine and common back-related problems
- The latest blog posts on musculoskeletal health

Top 5 Signs of Vitamin D Deficiency

Source: <https://articles.mercola.com/sites/articles/archive/2019/01/01/signs-of-vitamin-d-deficiency.aspx>



Top five signs you may have a vitamin D deficiency include ongoing musculoskeletal pain; frequent or intense colds and flus; neurological symptoms such as depression, impaired cognition (thinking ability), and headaches; unrelenting fatigue; and head sweating.

An estimated 40 percent of Americans are profoundly vitamin D deficient, defined as having a serum level below 20 ng/mL (50 nmol/L); 75 percent of American adults and teens are deficient when a sufficiency level of 30 ng/mL is used. If the sufficiency cut off is moved to a healthy 40 to 60 ng/mL (100 to 150 nmol/L), as recommended by the Grassroots Health panel of 48 vitamin D researchers, deficiency rates in the U.S. would likely be in the high 90 percent bracket

20 ng/mL is grossly insufficient for good health and disease prevention. According to the most recent research, a vitamin D level between 60 and 80 ng/mL (150 to 200 nmol/L) appears to offer the greatest protection against cancer and other chronic diseases.

Pregnant women need a minimum vitamin D level of 40 ng/mL (100 nmol/L) to help prevent premature birth and other pregnancy complications.

Optimizing your vitamin D levels may help you prevent cancer, heart disease, autoimmune diseases, infections, neurodegenerative diseases and much more. Regular, sensible sun exposure is the best way to optimize your vitamin D status, but many will need to take an oral vitamin D3 supplement, especially during winter months. The only way to gauge whether you might need to supplement, and how much, is to get your blood vitamin D level tested.

Clinic Services

1. Chiropractic Care
2. Laser Therapy
3. Electrical Therapy
4. Sports Injury Care
5. Custom Foot Orthotics
6. Massage Therapy¹
7. Naturopathic Medicine
8. Acupuncture

Clinic Hours

Please note:

1. Massage therapy is available outside core office hours.

Monday	8:00am— 12:00pm	3:30pm - 7:30pm
Tuesday	8:00am— 12:00pm	
Wednesday	8:00am— 12:00pm	3:30pm –7:30pm
Thursday		3:30pm –7:30pm
Friday	8:00am – 12:00pm	

Announcements

- Check out our WEBSITE at www.alliancechiroandwellness.com. You can find archived issues of our newsletter as well as other clinic information. Please note appointment requests should be made by calling the office at 905-648-0661. We do not accept appointment cancellations, bookings, or reschedules via our web site. These should be done by calling the office directly.
- Just a reminder to use the hand sanitizer when you enter the office, and face masks are mandatory. Thank-you!
- We continue to be open to all patients during the lockdown with mandated screening, cleaning, and mask protocols in place for the protection of staff and patients.
- Like us on Facebook! To see the latest in health news, research, updates, and announcements, check us out at www.facebook.com/AllianceChiropracticandWellnessClinic

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