Exercise Benefits
You have heard it all before, but let us give you a friendly reminder; exercise is good for you! In fact, exercise is the single best thing you can do to improve your overall health and wellness. This is a bold statement, but there is lots of high quality scientific evidence to prove it. In some cases, exercise has been shown to be better than surgery in the treatment and prevention of long-term complications in patients with coronary heart disease. What type of exercise you ask? According to the research, not too hard and not too long. Moderate exercise such as walking 30 minutes a day at a brisk pace shows the most overall benefit. If it is weight loss you are looking for, strength training is actually more effective than cardio. Yes, you read that correctly, participants in a recent study lost 9 pounds in the strength-training group compared to only 7 pounds by the cardio-only group.

The benefits of exercise are many; here are a few to get you motivated:
- Better immune system: exercise increases natural killer cell activity, a white blood cell, found in your immune system that helps you fight off infections.
- Improved sleep: exercise in the morning or early afternoon is best to promote restful sleep.
- Better mood: exercise lowers stress and anxiety.
- Better sex life: exercise helps you feel good inside and out.
- Improved heart health: remember your heart is a muscle and benefits from exercise to aid in its strength and overall function.
- Happier periods: exercise has shown to decrease dysmenorrhea, or painful periods.

The Weight Loss Puzzle
So you have been trying to lose weight, and you have worked really hard to change your diet, eat more veggies, less carbs, more water. You’ve even started going to the gym several times per week! Congratulations, you are on the right path to amazing health...but why aren’t you losing weight? Too many of us continue to struggle to drop weight, even in the face of good eating habits and exercise plans. It tends to get more and more difficult as we age, and while the reasons for this are not completely understood, we are starting to understand some of the major players. The biggest hindrances to healthy weight loss are inflammation and hormone imbalance.
Inflammation
A Harvard study in 2007 revealed that chronic inflammation is a root cause of inflammation. High levels of inflammation result in dysfunctional control over two main hormones responsible for weight gain. Insulin and leptin resistance can occur as a result of excess inflammation. Leptin is the primary regulator of appetite and food impulse control, and when you have high levels of inflammation the leptin system can no longer function properly. Inflammation also affects your ability to process sugars properly, through increased insulin resistance, and the combination of these dysfunctional hormones has a major impact on your ability to lose weight.

Some other signs that inflammation is impacting your health:
- You have joint and muscle pains
- You have active heart disease
- You have suffer from anxiety or depression
- You have been diagnosed with an autoimmune disease
- You have active heart disease or diabetes
- You lead a high-stress life

Changing your diet and adding exercise into your life are the main ways to decrease inflammation, but you may require some nutritional supplements that are specific to your individual case. Your Naturopathic Doctor can help you figure out what is best for you.

Hormone Balance
The second major regulators of weight loss are hormone imbalances. Below are some of the common offenders.

**Estrogen** → Too much estrogen, especially in relation to a low progesterone increases the likelihood of being overweight. Women accumulate high estrogen through many several ways, and there are just as many ways to decrease your levels too.

**Testosterone** → Testosterone is the main reason that men have less trouble losing weight than women. Testosterone helps to burn fat and build muscle while increasing sex drive, bone density, energy and motivation. It is normal to see testosterone decline as we age, but we are seeing much quicker rates of decline than we used to, and this is having a major impact on rising rates of obesity.

**Thyroid** → Your thyroid has a hand in controlling every major system in your body, and perhaps the most important of these is your metabolism. A sluggish thyroid directly impacts your ability to lose weight.

**Insulin** → Insulin is released in response to circulating sugar in the bloodstream, it functions to bring it into the cell to be used as fuel, or stored as fat. High levels of circulating insulin results in many unpleasant symptoms including nausea, anxiety, heart palpitations, sweating, irritability, weakness and fatigue. Typically our body responds to these symptoms by thinking that we are hungry, we eat more carbs and the cycle continues.

**Mood and Stress**
Your mood and stress levels can also give us clues about how well your hormones, and neurotransmitters are functioning – which greatly impacts your ability to lose weight.

**Depression** → When we are feeling low, our body is typically low in one or more neurotransmitters. The most common of these is Serotonin, which has a major impact on emotions, pain tolerance, sleep, appetite and cravings (especially for carbohydrates). The less Serotonin we make, the more we end up craving things that will help our body produce more, unfortunately these are things like sugar and simple carbs.

**Stress** → Chronic stress can range from major trauma's like job changes, moving, family loss or divorce all the way to constant, minor irritations like getting 50 emails a day, always being on a tight schedule or making sure your kids get to all their activities on time. Your body produces high amounts of cortisol to deal with these stressors, which causes a number of disastrous downstream effects on your hormone balance, not to mention predisposes you to that ‘impossible to loose’ abdominal fat.

Healthy Gardening
It’s that time of year when the sun is shining, birds and bees are working, and flowers are blooming. Gardening is a very enjoyable hobby with lots of health benefits. Healthy gardening preserves flexibility, increase mobility, builds strength and endurance and is therapeutic to the mind and spirit. Gardening allows time to connect with nature; an opportunity to grow your own food, and teach your children about the awe and wonder of Mother Nature. Growing and tending to your own garden can be very rewarding in the beauty and bounty it provides.

Most pharmaceutical drugs are derivatives of plants. For example, metformin (glucophage), which is a drug used to manage blood sugar in the treatment of type II diabetes comes from a plant known as Goat’s Rue (Galega officinalis). Goat’s Rue contains galegine, an alkaloid that lowers blood glucose and insulin resistance. In fact, if you do a little investigative work, you will find that many pharmaceutical agents get their origins from the plant world. The doctors at Arc Integrated Medicine use botanical medicine almost everyday in their practice! If you have questions about herbal medicine, please feel free to ask us.
5 Tips for Healthy Gardening

1. Use proper body position and mechanics: when raking or hoeing, keep your back flat, bend at the hips and use your leg strength not just your arms. A kneepad for weeding can be very helpful to prevent the long “bend over and reach” approach to weeding that often leads to a sore lower back. Always use your legs when lifting or carrying heavy pots and soil and avoid twisting or reaching to save your back from injury.

2. Wear gardening gloves: the right glove can help prevent blisters and prickles.

3. Choose the correct tool for the job: use the right size shovel for the job; longer handles can save your back. Lightweight rakes will keep soreness to a minimal with the leaves start falling.

4. Take frequent breaks: sometimes you just get into it and forget how long you have been playing in the earth, but frequent breaks for rest, hydration, and fuel will prevent overuse injuries and exhaustion at the end of the day so you can garden the next day!

5. Practice a light warm up and cool down: a few yoga sun salutations, shoulder figure "8"s, yoga cat-cow stretches, and a gentle hold of child’s pose followed by a light walk about your garden will have you ready to go.

After your gardening is done for the day, try some gentle stretches:

- For your wrists, put your hands into pray position, palms touching and push downward.

- For your neck, drop one earlobe down towards the shoulder on that side and hold for 10 seconds, slowly come back to neutral and repeat on the other side.

- For your back, lay on the ground with knees bent, engage core muscles and slowly bring knees down to one side doing a gentle low back twist. Hold for 30 seconds. Repeat other side. Finish in child’s pose, knees spread apart, and hold for 1 minute.

10 Amazing home remedies you can grow in your garden:

1. **Garlic**
   - This culinary herb is easy to grow, and has many health benefits including lowering blood pressure and stimulating the immune system.

2. **Calendula** (Marigold)
   - This bright orange flower helps kill bacteria, heals skin and is safe to use on cuts and scrapes.

3. **Fennel**
   - Fennel seeds are traditionally used to calm spasms in the digestive tract. Useful in colic, diarrhea or stomach upset.

4. **Dandelion Leaves**
   - You don’t even have to plant this guy! Typically thought of as a weed, but dandelion leaves are great help in detoxifying your liver, which can help alleviate constipation, bloating and gas. This beautiful weed is very helpful in the treatment of acne, high blood pressure and hormonal imbalances.

5. **Lavender**
   - Not only does this plant look and smell amazing in your garden, it also helps heal burns, wards off mosquitoes and should you get bit, helps relieves itching from those nasty insect bites.

6. **Rosemary**
   - You just need to smell this powerful herb to feel its invigorating effects. Rosemary helps bring blood and oxygen to your brain, increasing cognition and memory.

7. **Cilantro**
   - Did you know cilantro helps to rid your body of heavy metals? Now you do! This is a must-have addition to any herb garden.

8. **Lemon Balm**
   - Make yourself a delicious tea from these leaves, and experience the relaxing effect of this anxiety-decreasing herb.

9. **Chamomile**
   - One of the best remedies to have around, especially if you have young children. Chamomile is a safe and effective treatment for colic, nausea and insomnia.

10. **Sage**
    - Sage is a lovely antimicrobial, but it also has properties that can help alleviate hot flashes and excessive sweating.

As always, please check with your physician before using any medication, even if you are growing it yourself!
Sports Injuries

The hamstrings are the most commonly strained muscle in the lower limb and in honour of the 2014 World Cup, this article is all about a common soccer injury known as a hamstring strain.

The hamstrings are a group of 3 muscles (biceps femoris, semi-membranosis, semi-tendinosis) located in the back of the thigh. They originate on the bottom of the hip bone (ischial tuberosity) and attach just behind and past the knee joint on both sides. The most common location of a hamstring injury is the biceps femoris at the muscle tendon junction, about a hands width above the back of the knee.

Hamstring injuries are common in sports that involve sprinting such as: soccer, rugby, track, and football. This is because your hamstring muscles contract as you swing your leg out and extend your knee to sprint forward. If you have ever had a hamstring strain, you know how painful it can be and how slowly it can take to heal, preventing you from returning to your sport. Hamstring injuries also have a high rate of recurrence (16-63%), so prevention is key.

Eccentric exercises can help prevent hamstring injuries. An eccentric exercise is essentially lengthening the muscles while it is loaded and contracted, just how the hamstrings are when you are sprinting. Nordic exercises are done with a partner, and achieve just that. One person begins in the kneeling position, while the training partner applies pressure to the kneeling athlete’s heels/lower legs. The kneeling athlete then slowly lowers their chest to the ground in a push up position, arms/hands there to buffer the fall. The athlete then returns back to the starting kneeling position using their hands to minimize loading the concentric phase. Studies have found that performing Nordic exercises twice a week building up in the number of sets and reps for 10 weeks decreased the rate of overall, new, and recurrent acute hamstring injuries.

Note: please do not attempt to perform any exercise program without speaking to a healthcare professional. If you are currently suffering or have had a hamstring injury and would like treatment, the doctors at Arc Integrated Medicine are happy to help you return to your sport or activity quickly and safely.