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Editor's Letter



This time of year, it's hard not to notice breathtaking sunrises or appreciate the rays of sunshine warming our skin as we enjoy our lunch or take a walk. Before we know it, blankets of snow will be replaced by vivid green grounds and a splendour of colourful flowers!

Spring truly is the start of the new year in nature. What better time to renew our pledge to healthy living or perhaps take the first step to a more energized, improved lifestyle?

As you step into spring, our health-care professionals have some great advice to help you get the most of this glorious season. They look into the causes of sleeplessness to provide tailored recommendations, propose better ways to cope with allergy season, discuss the benefits of an earlier start to bone health, and introduce you to the many benefits of reishi spores. We also included some inspiring words on courage and sharing the gift of life.

Every step you take to promote good habits is a step towards a healthier future. Like the seeds and buds that will burst to life this spring, let's do all we can to *Flourish*!

Sophia Golanowski, BCom, MBA Editor-in-Chief

Flourish

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So much of our functioning relies on proper sleep. Reduced sleep can impair the ability to perform daily activities, impact cognition and mood, and affect motor skills. It can also affect proper decision-making and increase the risk for heart disease and obesity. Many conditions coexist with sleep issues; however, organic causes include insomnia, sleep apnea, restless legs syndrome, acid reflux, and other sleep-wake disorders.

More commonly, insomnia or trouble with sleep appear as symptoms of stress, anxiety, depression, thyroid disorders, adrenal fatigue, or hormonal imbalances. Mainstream medicine evaluates sleep disorders through a sleep study and blood work to determine if organic causes may be a contributor. To improve the ability to fall asleep and stay asleep, certain medications may be prescribed: for example, benzodiazepines, selective serotonin reuptake inhibitors (SSRIs), and antihistamines are common sleep medications. Although they may give short-term relief, they are not a long-term solution: These medications come with side effects such as drowsiness or impaired mental functioning, and they have a high risk of dependency. Supplements and herbal medicines are becoming readily available and utilized as an alternative.

Natural Alternatives

Fortunately, naturopathic medicine can offer alternatives and help discover the root causes of insomnia. These are beneficial, as they may work on treating the root causes like anxiety, depression, chronic pain, cortisol (adrenal) dysfunction, and thyroid disorders.

Lifestyle: Melatonin

Melatonin is a naturally produced molecule in the body. Due to stress, caffeine, shift work, or poor lifestyle, our circadian rhythms can produce too little melatonin. This is the most common alternative to sleep aids. It is most helpful in initiating sleep but can also improve sleep quality as seen in improvements in the Pittsburgh Sleep Quality Index (PSQI). Not only is melatonin helpful in the general population, but it can also aid in improving sleep in different populations such as those with traumatic brain injury, epilepsy, or acid reflux. Research has mostly used a dose of 0.5-3 mg in patients with delayed-onset sleep disorders or primary insomnia, 1 hour before bedtime.



Depression: Saffron

Saffron (*Crocus sativus*) was shown to be helpful in cases of depression. When sleep disorders or insomnia are due to depression, saffron can be helpful as an adjunct and possibly an alternative to antidepressant medications such as SSRIs. A study found that the use of 28 mg/d of saffron significantly improved anxiety, depression, and stress-related symptoms like sleep issues according to the PSQI. Other research has duplicated these effects, but at an even lower dose of 15 mg of saffron in 60 individuals over a 6-week period.

Muscosheletal: Magnesium

Magnesium can help in a variety of cases, especially when there is a musculoskeletal cause at play like chronic pain, fibromyalgia, or restless legs syndrome. A study using 5 mg of melatonin and 225 mg of magnesium 1 hour before bedtime for 8 weeks led to parameters that indicated a more restful sleep. This was seen in the ability to fall asleep, stay asleep, behaviour or alertness the next morning, and drowsiness on waking. Magnesium may be acting on the GABA receptors or others in the hippocampus, which are involved in affective disorders like anxiety and depression. For restless legs syndrome, research shows that a combination of magnesium and vitamin B₆ can reduce the severity of symptoms and improve sleep quality. This study used a dose of 40 mg B₆ and 250 mg of magnesium oxide. On the note of restless legs syndrome, iron supplementation can also be helpful if patients are also iron-deficient.



anxiety / Stress: 2-Theanine

If anxiety and stress cause sleep issues, supplements and herbs working on the GABA receptor can be helpful. L-Theanine, a compound from green tea extract, has been found useful for anxiety and related symptoms like insomnia. A study found that L-theanine supplementation led to improvement in selfreported sleep quality and other nonclinical measures of insomnia. Another trial found that 200 mg of L-theanine supplementation led to reduced PSQI scores in sleep latency, sleep disturbance, and use of sleep medication. Reports for anxiety and depression also improved in this group of participants.

Adrenal Faligue / Thyroid Disorders: Ashwagandha

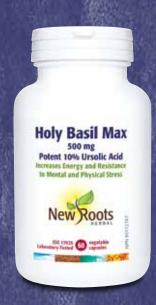
Ashwagandha is helpful in cases when adrenal fatigue or thyroid disorders are at play, because of its adaptogen properties. Ashwagandha significantly improved sleep in both insomniac and healthy patients. These results were found irrespective of the health and age of participants.

Lifestyle / Chronic Pain: Valerian

Valerian helps with sleep by working similarly to a benzodiazepine with its sedative effect. A review of 16 studies suggested that valerian can aid in both inducing sleep and improving sleep quality, with limited



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side effects. Valerian may cause drowsiness, so it should not be used if operating heavy machinery. It can also be helpful in cases with chronic pain because of its analgesic (pain-reducing) qualities.



Lifestyle Factors

Without basic healthy lifestyle practices, neither medications nor supplements will cause a lasting effect. It is recommended to avoid caffeine after 2 p.m., as it is a stimulant. Also, reducing alcohol and sugar prior to bedtime will maintain blood sugar stability. Getting direct sunlight exposure, eating regularly throughout the day, exercising, and practicing good sleep hygiene can all help regulate the circadian rhythm. The resulting effect of adequate melatonin production at night is higher cortisol during waking hours, which slowly decline throughout the day to allow falling asleep at night.

Conclusion

Sleep issues cause a disruption in functioning and quality of life in many individuals. Whether the sleep issue is related to another disorder or is a primary condition, various supplements and herbs show promise. These alternatives provide an option to sleepless nights and dependence on sleep-medications, which offer only short-term effects. To improve your sleep, start with basic lifestyle strategies as mentioned in this article, then consult an expert such as a naturopathic doctor for supplements or herbal remedies tailored to your needs.



Dr. Kaitlyn Zorn, HBSc, ND

A Guelph naturopathic doctor who uses a blend of modern science and traditional healing therapies to treat the whole person. Her journey has helped her develop an interest in brain health, pain management, and critical illness relief.

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Allergies affect millions of people in Canada, and finding cost-effective ways to manage their symptoms without side effects can be a challenge. While various treatments and medications exist, probiotics have emerged as a natural, safe, and affordable solution. Probiotics are live bacteria that can improve our gut health and, in turn, the immune system. Through their ability to modulate immune responses and reduce inflammation in the body, they can help manage allergies. Human studies show the effectiveness of certain strains:

In an 8-week clinical trial, 173 young adults who suffered from seasonal allergies received either a daily combination of 3 billion colony-forming units (CFU) of *Lactobacillus qasseri*, *Bifidobacterium bifidum*, and Bifidobacterium longum, or a placebo.

Individuals who received the probiotics reported improvement in allergyrelated symptoms, including nasal congestion, runny nose, postnasal drip, sneezing, conjunctivitis (red eyes), and itching of the nose or eyes.

In another clinical trial, 49 patients with perennial allergic rhinitis received either 100 ml of heat-treated fermented milk containing Lactobacillus acidophilus **L-92** or acidified milk without lactic-acid bacteria, for an 8-week period.

The individuals who received the *L. acidophilus* probiotic had improvements in nasal and ocular symptoms. In addition, clear decreases of nasal swelling and colour of discharge were observed at 6 and 8 weeks. Results suggest that oral administration of *L. acidophilus* L-92 can alleviate the symptoms of perennial allergic rhinitis.

For allergy sufferers, quality of life is often reduced during allergy season. These human trials demonstrate that certain strains of probiotics can reduce nasal- and ocular-related allergic symptoms.

Be sure to choose probiotics containing the studied strains; strains and the number of CFU will be listed in the ingredients. To ensure probiotics are fully viable, select probiotics that are refrigerated from manufacturing through to consumption. Opting for probiotics in enteric-coated capsules will ensure safe delivery to the intestines, thus maximizing effectiveness.

Both clinical trials were randomized, double-blind, and placebo-controlled.



Annick Moffatt, ND

With more than 20 years of experience in the health domain, first in psychology, then as a naturopathic doctor, she brings a holistic approach to health problems.

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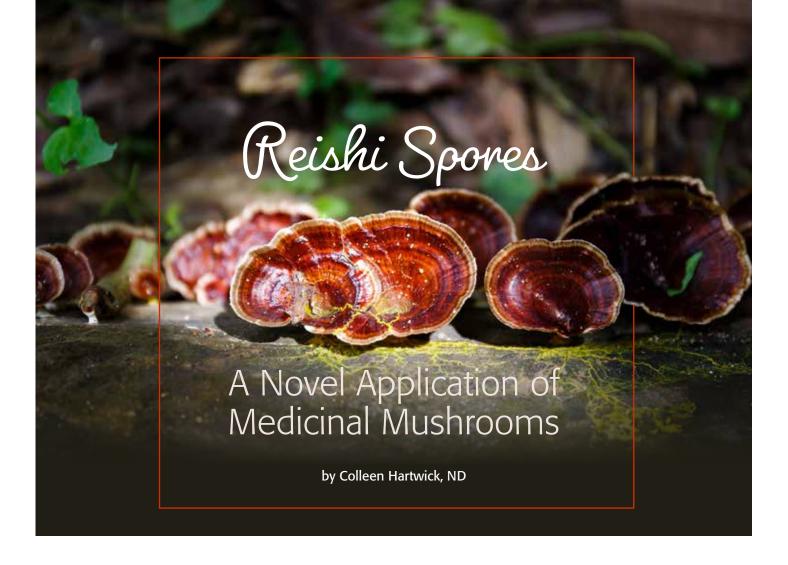


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Ganoderma lucidum, more commonly known as reishi, is a mushroom with a long history of use for promoting health and longevity in Asia. The Chinese name for reishi, lingzhi, translates to "the herb of spiritual potency," and it has been described as the "mushroom of immortality." Among cultivated mushrooms, reishi is unique in that its pharmaceutical value—rather than the nutritional—is paramount. Historically, as a medicinal mushroom, reishi has been prepared using the whole fruiting body to create powders, tinctures, teas, and other dietary supplements. Recently, preparations of reishi using the spores have made their way into the marketplace, as researchers have developed the technology to break the cell walls of reishi spores.

Precious Seeds

Ganoderma lucidum spores (GLS) are the mature germ cells of reishi. Spores are the reproductive cells of the mushroom that are ejected from the cap of the fungus once mature. You can think of reishi spores as mini reishi seeds.

Recently, the pharmacological study of *Ganoderma* spores and active components has become a global focus of attention. Reishi spores, similar to the whole fruiting body, have demonstrated several health effects: immune-system modulation, antitumour activity, liver protection, gastriculcer prevention, free-radical scavenging, blood sugar— and blood lipid—lowering properties, and the list goes on. You might be asking yourself, given the similar effects between reishi spores and the whole

fruiting body, what the benefit is of using the spores. Let's find out.

How Are Spores Different?

What's different about reishi spores is that over 29 triterpenes have been isolated from the spores, while only a few have been found in the fruiting body. Also, more than 40% of the spore content is made up of immunomodulating polysaccharides such as betaglucans, whereas the whole fruiting body contains only about 0.73% polysaccharides. Additionally, reishi spores do not contain chitin, a polysaccharide that makes the beta-glucans found in the whole fruiting body far less accessible without processing the fruiting body via hot-water extraction.



Reishi Spores and Cancer

In addition to the high polysaccharide content, reishi spores have been found to contain a mixture of long-chain fatty acids; these are thought to contribute to the antitumour activity of the mushroom. Spores have also been shown to inhibit the growth of two proteins (phosphatidylinositol and NF- κ B) that contribute to the progression of breast and prostate cancers. Due to their ability to scavenge free radicals, reishi spores can help prevent damage to cell DNA as well as prevent the growth of tumours.

A study on the treatment of sarcoma compared the health benefits of extracts made from the whole fruiting body (pileus and stipe), pileus (cap), stipe (stem) or the spores. The whole fruiting body, stipe, and spores demonstrated a greater ability to hinder cancer growth compared to the cap only. Furthermore, spores show an immunomodulator activity and increase production of cytokine (messenger) responsible for immunity and anti-inflammatory effects.

Reishi Spores and Diabeles

Type 2 diabetes is a metabolic condition that impairs the body from properly regulating and using sugar as fuel. It develops because of a combination of sustained high blood sugar and subsequent insulin insensitivity. Cells lose their ability to respond to insulin, the hormone that helps cells absorb glucose from the blood.

A study investigated the effects of reishi spores on blood-sugar regulation. At the end of a 4-week intervention, subjects with type 2 diabetes and treated with reishi-spore powder showed a reduction in oxidative stress, an increase in fat metabolism (and, as a result, reductions in blood lipids like cholesterol), and an increased storage of blood glucose as glycogen, culminating in reductions of blood glucose and improvements in their diabetic markers.

Another study further revealed that treatment with reishi spores not only reduced blood glucose in diabetics, but also reduced inflammation, oxidation, as well as fibrosis (scarring) of the myocardium (heart muscle), This is an important finding, as heart damage is a potential long-term consequence of chronically elevated blood glucose.



Reishi Spores and Liver Health

A study explored the effects of reishi spores on cadmium-induced liver damage in rats. After priming test subjects with reishi spores, they were administered a liver-damaging dose of cadmium. Treatment with reishi spores decreased cadmium accumulation in the liver cells and increased cadmium sequestration in a protein (metallothionein)—both of which offered liver cells protection from cadmium-induced oxidative stress and liver damage. Not only did reishi spores help protect liver cells by sequestering cadmium, but they also increased liver production of metallothionein, offering further liver-cell protection from cadmium-induced damage.



Reishi Spores and Dementia

Oxidative stress is a key process in the development of dementia, as it results in the degeneration of neurons.

A study on rats explored the effects of reishi spores on neurodegeneration. Streptosozin, a drug that causes oxidative stress and neurodegeneration, was administered to rats. Subsequent treatment with mushroom spores resulted in increases in glutathione reductase and reduced glutathione (two indicators of antioxidant capacity) in the hippocampi of the test rats, resulting in preservation of the streptosozin-exposed neurons. The study demonstrated the increases in antioxidant capacity in subjects given a reishi spore powder.

Reishi spores have been demonstrated to increase the health and number of neurons in the hippocampus—a key area of the brain involved in memory and cognition. Treatment with reishi spores in a study has been shown to increase amounts of a nerve growth factor called neurotrophin-4, which is the likely mechanism for preserving and protecting neurons in the hippocampus. In addition to increasing neurotrophin-4, reishi spores were shown to increase neural connections and promote the recovery of damaged neurons in the hippocampus by raising levels of two other nerve-growth factors (BDNF and TRPC3).

Planking the Seeds for the Next Supersupplement?

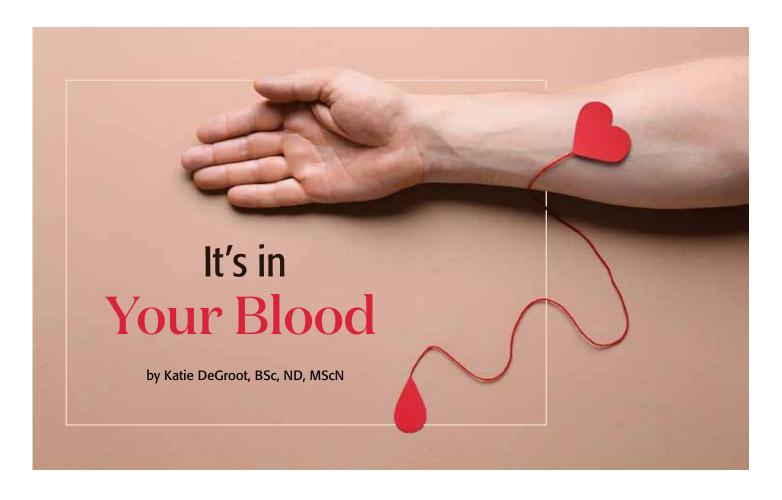
The clinical applications of reishi spores are still being studied, but they are holding their weight in immune-enhancing, neuroprotective, antiepileptic, anxiolytic, antitumour, and liver-optimization abilities. Reishi spores could very well be the next "supersupplement" due to their higher concentration of triterpenes, in addition to their greater bioavailability.



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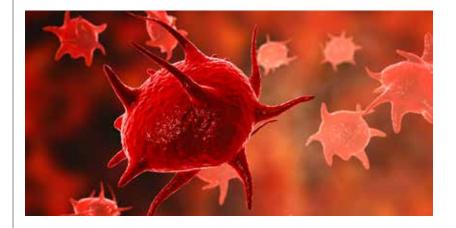


You may have seen on the news or in an online advertisement that there is an urgent need for blood supplies in Canada. This shortage has been ongoing for a while now, and it has the potential to negatively impact many Canadian lives. It is in part due to increased need for blood products and a reduction in the number of donations over the past few years. Blood products are constantly needed as they are used every day to save lives, and there is a limited shelf life for unused supplies. Therefore, donors should give regularly to keep adequate levels.

The three main blood products collected in Canada are blood, platelets, and plasma.

Plasma

Plasma refers to the liquid part of blood, containing water; proteins (including clotting factors); and a small amount of minerals, sugars, hormones, fats, and vitamins. Plasma is typically given to individuals after experiencing physical trauma (e.g., a car accident), a serious burn, or going into shock; it may also be given on a regular basis to individuals with liver disease or clotting disorders. Donations of plasma are especially important from individuals with AB blood type, as their plasma can be given to patients of any blood type.



Platelets

Comparatively, platelets are small blood cells that cluster together to form a clot and stop bleeding cause by an injury. They are made in the bone marrow, are processed by the spleen, and are abundant in the blood. Platelet donations benefit individuals with inadequate amounts themselves—usually due to certain types of cancer, severe blood loss, and/ or autoimmune diseases.

Whole Blood

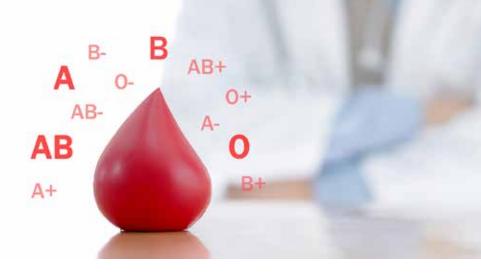
Finally, whole-blood donations are of everything found within the blood: iron-rich red blood cells, plasma, and platelets. Individuals with blood type O negative are considered universal donors, since their blood can be given to any blood type, which makes it so useful in emergency situations. Of course, all blood types are needed and used in Canada.

Who Can Donate?

Giving blood is easy and accessible for most. Here are the minimal criteria to be eligible: be at least 17 years old, weigh at least 50 kg, and be of good health. At the time of the blood-donation appointment, further screening is completed to determine precise eligibility: potential donors answer a healthstatus questionnaire, and their vital signs and hemoglobin levels are checked. If hemoglobin levels are too low, this may indicate there are inadequate iron levels to donate blood safely. If low iron levels are suspected, followup testing with a physician is advisable to determine the underlying cause of low iron. If it is determined to be due to low dietary iron intake or related to blood loss, an iron supplement may be recommended.

How Long Does it Take?

How long should I expected to be there? The duration varies by what product is collected and how



much is taken, but generally takes between an hour and two. The actual collection can take as little as 10 minutes, but the screening questionnaires, set up, and rest period following collection are what take the most amount of time.

Is it Safe for Me to Give Blood?

Blood donation is generally safe if no contraindications exist—which would have been identified beforehand in the health screening before any blood is donated. The most common side effects are feeling faint or nauseous during or shortly after donation, or bruising at the site of collection. Both are usually minor and self-limiting. There is also no risk of contracting a blood-borne disease by participating in blood donation. Furthermore, the body recovers quickly; the donated fluids will be restored within 24 hours, and red blood cells will be replaced within a few weeks.

What Are the Benefits of Donating Blood?

The major benefit of donating blood is obvious: the mental health boost in knowing that your donation will help save lives. Indeed, estimates suggest that one donation may save up to three lives! It has also been noted that people who donate blood regularly experience fewer heart attacks, especially in men, but research on this remains ongoing. It has also been observed that, in some populations, blood donation reduces the risk of cancer and mortality and can help keep the liver healthy.

Another health benefit to the donor is the free health screening: If someone donates blood regularly, then health issues are likely to be noticed sooner. Additionally, after blood is collected, it is tested for disease; if identified in the blood, it is disposed of (not used), and the donor is notified to seek treatment. So, why not donate today? It's in your blood!



Dr. Katie DeGroot, BSc, ND, MScN

Dr. DeGroot is an Alberta-registered naturopathic doctor who also holds a Master of Science in Nutrition. She offers nutritionally focused care and has a special interest in digestive issues and supportive mental health-care.

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Most of us are aware of the changes our body will undergo as we age but often think that since this is a normal process, there is nothing we can do to prevent age-related complications that may arise. With a little bit of understanding and some proactive diet, lifestyle, and supplement changes, we can absolutely protect our bones and maintain the youth of our skeletal systems.

As we age, we see a reduction in the density of our bones, meaning they become brittle and at an increased risk of fractures or breaks.

This is especially true in postmenopausal women due to a drop in the hormone estrogen, which leads to the body breaking down the bones faster than it repairs them. We also see less fluid in our joints, which makes cartilage (the protective layer at the ends of our bones) rub together and ultimately break down, which puts the bones at greater risk of experiencing damage and pain.

Finally, we see a major reduction in muscle mass as we age, usually because of a less active lifestyle. With muscle, if you don't use it, you will lose it! As muscle mass decreases, joints are less flexible, and this combination leads to an increased risk of falls, which of course increases our risk of injuries and broken bones.

Osteoporosis and Osteoarthritis

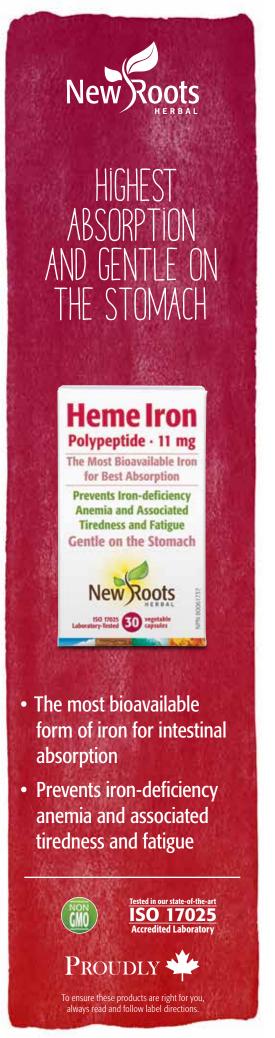
These changes lead to two common yet preventable age-related conditions: osteoporosis and osteoarthritis.

Osteoporosis is low bone mineral density which is caused from a breakdown in the microstructure of the bone and leads to a predisposition to bone fractures.

In one study, it was found that over 50% of postmenopausal women will have some sort of osteoporotic fracture at some point. While men have a slightly smaller fracture risk (20%), they have significantly worse long-term outcomes while healing from these fractures. This means the most effective way to treat these fractures—and potentially improve quality of life—is to prevent them from happening by maintaining appropriate bone mineral density.

Osteoarthritis occurs when cartilage in a joint breaks down, resulting in changes to the structures of the underlying bone.

It is very common, with 80% of the US population being impacted by the condition. Osteoarthritis will typically present as joint pain, stiffness, and reduced function in the affected joint, and is often caused by overuse or injury.



Preventing Onset

The good news is that, while these conditions can be debilitating when severe, there are ways to prevent the onset of the condition. The most important focus should be diet and lifestyle. When you are exercising, it is important to choose weight-bearing or resistance exercise, as this has been proven to build and maintain both bone and muscle mass. It is also important that any injuries are rehabilitated properly so you are not jumping back into an exercise program that could result in more damage to an injured joint.

Diet

It is essential that you choose calcium- and vitamin D-rich foods, as these minerals are important for building and maintaining the integrity of your bones. These nutrients—along with other bone-supporting nutrients—can be found in dairy products, fish (especially with bones), legumes, nuts, and seeds. When considering a bone-healthy diet, it is important to reduce sugar, especially while healing a joint injury. Sugar has been shown to lead to more inflammation, which can in turn lead to an increase in the incidence and severity of osteoarthritis.



Stack the Odds in Your Favour

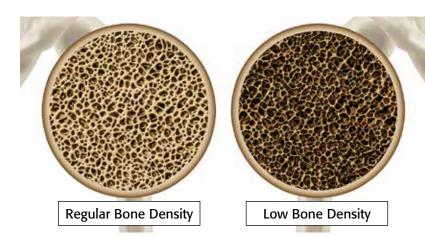
Some supplements have been proven effective for maintaining bone health, especially because it can be hard to get enough calcium and vitamin D from diet alone. Food is always the best source of a nutrient, but when you cannot meet your requirements, the best supplement is one that mimics the naturally occurring form of the nutrient.

In the case of calcium, this means looking for **calcium hydroxyapatite**, which has been shown to outperform the calcium carbonate that is typically found in supplements, both for reduction of bone loss and for having less side effects.

Vitamin D levels tend to drop as we age, but studies have shown that supplementing vitamin D may reduce fracture risk through its impacts on muscle function, reducing inflammation, and improving bone mineralization.

Vitamin K is another important nutrient that supports calcium metabolism and ensures calcium is deposited into the bones. Low levels are associated with increased fracture risk.

While calcium is key for maintaining bone health, it is important to remember that it should always be combined with other nutrients, especially vitamins D and K. High doses of calcium on their own have been shown to increase the risk of cardiovascular events; this can be easily prevented by choosing a multinutrient supplement rather than having calcium on its own.



Glucosamine and chondroitin have been shown to prevent joint-space narrowing in osteoarthritis in more than one meta-analysis. It is important to keep in mind that this structural benefit takes 1–2 years to be achieved.

Glucosamine and chondroitin are more effective when taken in earlier years, rather than being started after the onset of osteoarthritis-related pain and stiffness. Chondroitin and glucosamine are key molecules in the collagen network of joints, and they help the network to sustain pressure and weight. In osteoarthritis, this network is damaged and unable to bear weight as it once did, so by preventively taking glucosamine and chondroitin, we should see a reduction in the breakdown of this collagen network.

Whether you are in your early 20s or heading towards retirement, it is never too late—or too early—to start supporting your bone health so that you can enjoy a youthful skeleton for many years to come.



Dr. Kaitlyn Richardson, ND, HbSc

A naturopathic doctor in Milton, Ontario, with a clinical focus in sports and performance medicine, she believes in using individualized, holistic, and evidence-based strategies to help active individuals feel and perform their best.

drkaitlynrichardson.com

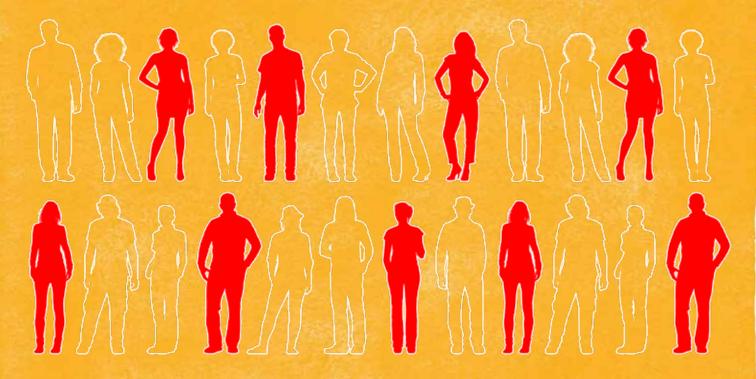
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1 IN 3 CANADIANS

DOESN'T GET ENOUGH MAGNESIUM



ENSURE YOU'RE GETTING ENOUGH!













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Most of us have heard that we need to get more fibre, but how many understand what it really is, how it works in our body, and why it's so important to our health? And above all, are you certain you're getting enough?

What Is Fibre?

Dietary fibre is a type of carbohydrate consisting of remnants of edible plant cells, polysaccharides, lignin, and associated substances, that are not digested by the body, particularly in the small intestines of humans. Fibre passes through the intestinal tract relatively intact, compared to other types of carbohydrates, which are broken down into more digestible sugar molecules.

Fibre, also known as "bulk" and "roughage," can be grouped into two categories: insoluble fibres and soluble fibres. Insoluble fibres include cellulose, lignin, and many hemicelluloses. Soluble fibres include pectin, gums, and some hemicelluloses.

Insoluble v. Soluble Fibres?

Determining which dietary fibre source is soluble versus insoluble can be confusing, because most sources have overlaps in composition. Although it is generally recommended to consume fibre altogether, a fibre source's solubility in water matters. Evidence shows one type to be better suited for certain physiological functions and health conditions than the other. Insoluble fibre has the capacity to hold water—this makes stools bulkier and softer, allowing them to pass through the intestinal tract easier. Consuming insoluble fibre may help manage constipation and abdominal straining, and potentially prevent the development of diverticular disease, hemorrhoids, and varicose veins. Soluble fibre, on the other hand, mixes well with water to form a gel, which delays gastric emptying and plays a role in satiety and decreasing overeating. Both insoluble and soluble fibre have been shown to delay glucose absorption from the small intestine, making them suitable for managing diabetes.

Canadians Aren't Getting Enough Fibre!

A study assessed the results of a 2015 Canadian Community Health Survey, conducted to estimate of the usual intake of nutrients and monitor the diet quality of different populations. Results were derived from the participants' reported daily diets: Their usual intakes of macronutrients (including fibre) and micronutrients (i.e., vitamins and minerals) were compared to the recommended acceptable intakes. It was deemed that a significant number of Canadian adults may not be meeting recommendations for several essential nutrients, which may be contributing to nutrient inadequacies. Less than 25% of adults (aged 19 years and above) had intakes above the adequate intake for fibre. Across different age-sex groups, adults consumed an average of around 17 grams of fibre per day.



Where Can We Get Our Fibre?

To maintain good health, children and adults need to consume at least 25 to 35 grams of fibre per day. In general, whole grains, whole fruits and vegetables, legumes, nuts, and seeds are naturally abundant in fibre. More specifically, foods with soluble fibre include oats, chia seeds, nuts, beans, lentils, apples, and blueberries. Foods with insoluble fibre include whole-wheat products (especially wheat bran), quinoa, brown rice, legumes, leafy green vegetables such as kale, almonds, walnuts, seeds, and fruits with edible layers like pears and apples. But busy schedules, limited food options, personal preferences, and aging can make it difficult to get enough fibre from our diets. Supplementation can help bridge the gap by providing convenient and efficient ways to increase fibre intake.

Why We Need to Consume Adequate Fibre

A balanced daily diet offers a positive impact on overall health. Interestingly, it seems fibre intake has a bigger role in health than just keeping you full and regulating your bowel movements. A higher intake of dietary fibre is associated with fewer metabolic diseases such as obesity, diabetes, and cardiovascular disease. Dietary fibre can significantly alter the environment within the intestines, particularly affecting the microbiome and influencing the intestinal barrier as well as the immune and hormone responses within the digestive tract. Consequently, these changes on the gut, associated with dietary fibre intake, alter the physiology and biochemistry of other major organs that are involved in nutrient absorption and detoxification (i.e., liver and kidney function).

What Happens When You Don't Get Enough Fibre?

Accurately surveying fibre intake can be challenging, and even more so assessing fibre intake and disease progression, especially on a broader scale. In smaller-scale and more specific studies that look at fibre and people with chronic diseases, it is postulated that low intake of dietary fibre is a risk factor for both local and systemic chronic inflammation. Chronic inflammation is important to address because it sets the stage for many chronic diseases such as cardiovascular disease, diabetes, cancer, neurological issues, fertility issues, and more.

Bulk up for the Better!

The data on adequate fibre intake and its many health benefits continue to impress health-care practitioners. The challenge is almost always how to incorporate more fibre specific to your unique needs. It is very important not to hyperfocus on consuming a particular fibre for its specific health benefits. Instead, try to consume a wide variety of dietary fibre sources, and supplement as needed, to reach the daily recommendations (25–35 grams). Consulting with a qualified health-care practitioner can help to effectively manage your obstacles and optimize your health.





Dr. Kim Abog, ND

Dr. Kim Abog is a registered naturopathic doctor and doula based in Toronto, Ontario. She has a special interest in fertility and reproductive health. She helps people by facilitating health-management plans with them, connecting them to evidence-informed integrative health solutions, and helping them thrive.

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"...courage is not the absence of despair; it is, rather, the capacity to move ahead in spite of despair."

-Dr. Rollo May

Have you ever allowed yourself to fully steep in the magical reverie that nature offers and allowed yourself to be swept away by the experience of awe that such full-bodied present-moment awareness creates? Not only does nature offer breathtaking beauty, but it also holds countless lessons and tools for living, if we are willing and able to get out of our own way and learn to watch, listen, and take heed.

For example, did you know that, when in its cocoon, a caterpillar dissolves most of its body, digesting and converting it into a stem cell–like translucent liquid that it subsequently transforms into the structures of its new body and identity as a butterfly?

And did you know about Dr. Daniel Siegel's interpersonal neurobiology work? It describes how human adolescent brains also go through a "remodeling" process of pruning and myelination that, in essence, destroys neurons and synaptic connections that once defined them and then facilitates the construction of structures to create more effective, differentiated, and efficient brain functioning?

These are just two examples of the wisdom in nature.

Unfortunately, in our frenetic technologically driven existence, most of the modern world has become disconnected from the wisdom and guidance of the natural world. Over centuries, we have been warned of this countless times by our First Nations and other wisdom teachers. But our unbridled enthusiasm to fiddle with nature and unabashedly make efforts to "control" our world, each other, and the environment has led us down the slippery slope to a world with a significant rise in many mental-health conditions and outcomes.

The World Is as You Dream Il

In his book, *The World Is as* You Dream It: Teachings from the Amazon and Andes (1994), John Perkins shares a poignant

conversation about this topic that he had with a shaman teacher on his travels in the Amazon and Andes:

"'The world is as you dream it,' [Numi] said at last. He walked to the edge of the water. 'Your people dreamed of huge factories, tall buildings, as many cars as there are raindrops in the river. Now you begin to see that your dream is a nightmare.' [...] 'How can I change, Don Alberto? How can my people change this terrible situation we've created?' His eyes held mine once again. 'That's simple,' he replied. 'All you have to do is change the dream.'"



Changing the Dream

As simple as that solution sounds on the surface, changing the well-worn habit of dreaming one way to an entirely new construction of thought is one of the most difficult things we can do. To change the neural pathways in our brain and learn to think differently is a full-on renovation project of the mind. It's difficult because of the inherent necessity to challenge—or at times even destroy and profoundly transmute, as caterpillars teach us about—beliefs that you and likely many others have assumed to be true. As humans, we don't like to be wrong, even if it is our own awakening that guides us to such an awareness that we have erred in our thinking. It seems far easier to hold onto outmoded beliefs (fiercely if necessary), rather than reconstruct our worldview based on new information.

Changing our worldview is an extraordinary creative process that forces us to courageously confront some of our greatest sources of anxiety. And by our very nature and desire to be right, we also tend to do all we can to silence others' thoughts and ideologies that conflict with our own because of our desperation to cling to our familiar assumptive world. It truly presents a conundrum and can serve to stunt our capacity for transformation and our ability to access optimal solutions and functioning.

The Courage to Create

Over 20 years ago, I read Dr. Rollo May's seminal book, *The Courage to Create*, that forever transformed my perceptions of the world and my place in it. Though published almost 50 years ago, May's message about





how to transform anxiety, despair, and dysfunctional systems of all types continues to offer important guidance, perspective, and hope, even amidst the current milieu in which we now find ourselves.

In his book, May not only deconstructed the meaning of courage in a multitude of forms (e.g., physical courage, moral courage, social courage, creative courage), but also the required conditions and processes that enable creativity to take place. In our current climate, which is fraught with an unprecedented rise in anxiety in our population, May's insights about anxiety are particularly relevant, as well as his historical observations about organizations' relationships and responses to creative people in society.

Tips for Living Courageously

Cultivate Cognitive Flexibility

Consistent with both Dr. Daniel Siegel's characterization of mental health and wellness being represented by finding that sweet spot between rigidity and chaos and Dr. Rollo May's articulation of a "paradox of courage," it is crucial to maintain both flexibility and clarity of mind:

"...the seeming contradiction that we must be fully committed, but we must also be aware at the same time that we might possibly be wrong."

-Rollo May

Trust and Learn from Nature

As difficult as it may be, experiment with reducing your overreaching efforts to control your world and others in it. There is wisdom in nature. We don't need to be so focused on fear, regardless of the barrage of media images and messages that suggest otherwise.

Relish in the Deliciousness, Beauty, and Wisdom that Surrounds You

When your habits of thinking have become entrenched with anxiety, it is easy to miss out on the gifts that surround you. Fear and anxiety have the propensity to turn people into victims, while gratitude and appreciation dissolve the construct of victimhood, allowing you to reconstruct your mind to be transformed, like a butterfly, no longer limited by the binding cocoon (real or illusory) that may have separated you from others.

Most importantly, take this unique time as an opportunity for embracing a life of greater personal freedom and authenticity.

"The hallmark of courage in our age of conformity is the capacity to stand on one's own convictions-not obstinately or defiantly."

-Rollo May



Dr. Theresa Nicassio, PhD, Psychologist

Theresa is a registered psychologist, wellness educator, and the award-winning author of YUM: Plant-Based Recipes for a Gluten-Free Diet.

TheresaNicassio.com

YOU CAN DO MORE WHEN YOU HAVE STRONG BONES





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Ingredients

- · 1 large chicken breast, skinless
- \cdot ½ purple onion, diced
- · ½ avocado, diced
- · 1 cup of black beans
- · ½ cup of dry quinoa
- · ½ cup of corn, grilled
- · ¼ cup of fresh cilantro, chopped
- · Juice of ½ lime
- 2 tbsp. of New Roots Herbal's Heart Smart Extra Virgin Organic Olive Oil
- · 2 tbsp. of New Roots Herbal's Beef Bone Broth Protein
- · 1 tsp. garlic powder
- · Salt and pepper to taste

Instructions

Preheat the oven to 400 °F (205 °C).

Toss chicken with 1 tbsp. of olive oil. Sprinkle with the garlic powder, as well as salt and pepper to taste. Bake the chicken breast in the oven for 25 minutes or until done.

Prepare the quinoa on the stovetop according to the directions on the packaging. Add 2 tbsp. of New Roots Herbal's Beef Bone Broth Protein.

While the quinoa is cooking, combine the rest of the ingredients in a large bowl.

Once the chicken and quinoa are done, you can chop the chicken to bitesized pieces and cool. Cool quinoa and add both to the bowl (omit chicken and bone broth if you want a vegan version).

Serve cold with fresh cilantro on top.

Serves 2.



Tammy-Lynn McNabb, RHNC

A registered holistic nutrition counselor and television host/producer of Health Wellness & Lifestyle TV, she believes that eating healthy shouldn't be difficult and should never compromise taste.

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These wraps are a perfect way to repurpose chili from the night before. I am a big fan of leftovers, but sometimes it's nice to switch it up, so you aren't eating the exact same meal. When making chili, I love making lettuce wraps the following day. You can get creative and have fun with the toppings for your lettuce wraps. Get your family members to choose some toppings they'd like on their lettuce wraps to get everyone involved and interested in eating the meal.

Ingredients

- · 1 lb. ground turkey (this can also be chicken or beef)
- · 1 yellow onion, diced
- · 1 bell pepper, diced
- · 2 cups tomatoes, diced (these can be canned)
- · 2 cups kidney beans (these can be canned)
- · 1 cup lentils (these can be canned)

- · 1 cup mushrooms, sliced
- 1 cup vegetable broth or tomato sauce (add more if you want more liquid)
- · 2 tbsp. extra virgin olive oil
- · 2-3 tbsp. chili powder
- · 1 tsp. cumin
- · 1 tsp. garlic powder
- Sea salt and black pepper to taste

Note: I like to finely mince my veggies so that they are uniform with the ground meat (less chance they will be picked out by my kiddos), but you can keep everything chunkier as well.

For lettuce wraps: Use Boston bibb lettuce or romaine lettuce (they will hold best).

Toppings of choice: Shredded cheese, salsa, fresh jalapeño, corn, green onions, etc.

Chili Instructions

Heat oil in a large pot on medium heat. Add ground turkey and season with some salt and pepper. Sauté for 5–7 minutes or until cooked.

Add the remaining ingredients. Bring to a boil and reduce heat to low; let simmer for 30–45 minutes.

Place chili in bowls, top with any additional toppings, and enjoy!

Wraps Instructions

Place warmed up chili in lettuce wrap, top with additional toppings and enjoy (like a taco)!

Makes 6-8 tacos.



Angela Wallace, MSc, RD

A registered dietitian with the College of Dietitians of Ontario, personal trainer, and family-food expert who specializes in women and child nutrition and fitness, she loves helping families get healthy together.

eatrightfeelright.ca

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Have an appetite for something sweet yet nutrient-dense and satisfying? Cauliflower and other cruciferous vegetables contain compounds that may prevent cancer. Therefore, swapping your typically deep-fried pub wings for some of these bites can be a bold move for your health.

Ingredients

- 1 medium cauliflower head, cut into bite-sized florets
- · 2 large organic free-range eggs
- · 5 garlic cloves
- · 1 cup quinoa (water- or broth-based)
- · 1½ cups gluten-free bread or panko crumbs
- · ½ cup filtered water
- · 6 tbsp. honey
- · 1 ½ tbsp. gluten-free tamari soy sauce
- · 2 tbsp. arrowroot powder
- · 1 tbsp. onion powder

Instructions

Preheat the oven to 400 °F (205 °C).

Cut or dice up cauliflower from large heads into smaller pieces.

Prepare two small bowls: in one bowl, whisk two eggs together and set aside; in the other, place the bread or panko crumbs of your liking for preparation.

Dip the cauliflower in the eggs, then roll into the bread or panko crumbs, and place on a parchment paper-lined baking pan.

Bake for 15–20 minutes or until the coating is a dark golden or brown, and crunchy.

Sauce Instructions

Add the garlic, tamari soy sauce, onion powder, and honey to a pan and bring to a simmer on medium heat, stirring frequently.

In a small mason jar or bowl, mix water and arrowroot powder together and shake mixture together; then add to the pan.

Consistently stir until the sauce reaches a low boil again, and continue whisking and cooking until the sauce thickens.

Take cauliflower out of the oven and toss in the sauce; enjoy!



Megan Luder, CNP

A certified nutritional practitioner who is passionate about creating and educating on the health benefits of nutrient-dense whole food. libertynourished.com

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Allergy season is right around the corner. Any suggestions for a natural alternative to over-thecounter allergy meds?

Black cumin seed oil has been shown to have anti-inflammatory properties which can help reduce symptoms of allergic rhinitis—or hay fever—such as sneezing, runny nose, and congestion, as well as itchy or watery eyes. And unlike some of the other "over-the-counter allergy meds" you referred to, it is not known to have side effects such as drowsiness, dizziness, headache, dry mouth, and dry nose. You do need to take it over a period of time before it takes effect, so be sure to start before hay-fever season hits.

Black cumin seed oil can be found in liquid or softgels. It's also gaining popularity in fermented powder form.

I'm noticing more companies stating they use "hardy, specially selected, or proprietary" probiotic strains that "resist stomach acid." Are there really acidresistant probiotic strains?

Depends on how you define resistance. I've looked into published studies but can't find any scientific literature to support fully acid-resistant probiotic strains. Even *L. acidophilus* and *L. rhamnosus*, that have been shown to be tougher than other strains, have a survival rate of only 45–70% depending on gastric pH levels. Some of the most fragile probiotic strains, like *Bifidobacteria*, have weak acid tolerance but are extremely beneficial to our health. Studies have shown that—compared to healthy individuals—people with celiac disease, obesity, diabetes, allergic asthma, and dermatitis all seem to have lower levels of *Bifidobacteria* in their intestines.

Reputable companies should be providing a wide variety of probiotic strains, with proven therapeutic benefits—whether they are resistant to gastric acid or not. All probiotic strains can be protected from gastric acid by using enteric-coated capsules. Given this technology exists, I've often wondered why any company would select "hardy strains" rather than providing you with the "best strains" in enteric-coated capsules. Could it be the additional expense?

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You have a question you would like answered about your health and supplements? Gord would be happy to answer them! We could even feature them in this page if others could benefit from the information.

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