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Exercises

Dark Chocolate
'Tis the Season of the Guilty
Superfood

Love Your Heart
Ten Foods to Eat for a
Heart-Healthy Diet



New Roots
HERBAL

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January/February 2017

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New Roots Herbal Inc.
3405, F.-X.-Tessier street, Vaudreuil-Dorion, QC J7V 5V5
1 800 268-9486 • newrootsherbal.com
info@newrootsherbal.com

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Editor's Letter



I love this time of year, when we go out and play outside after a nice, heavy snowfall. It's a real pleasure to strap on the snowshoes, or simply go out and play with the children. They still honour me with the privilege of placing the last snowball that will serve as the snowman's head!

Winter days are also ideal for cocooning and finding the time to recharge. It can also be the perfect occasion to immerse yourself in a new novel, discover new music, or try new recipes in the comfort of your home.

One of my "must-haves" after a cold winter day is a good cup of hot chocolate. What could be more comforting and delicious after being outdoors? In fact, whether it's hot chocolate, a dessert, or a chocolate bar, who doesn't like chocolate? It is said that those who do not like chocolate lie... Liar or not, we can all reap its many benefits. In this issue, we will talk about nutritional properties of dark chocolate and the skin's benefits of cocoa butter. Whether it is for these benefits or simply for its taste, the history of chocolate is not new: the Aztecs used cocoa to ignite passion and love's ecstasy. With Valentine's Day approaching, dear gentlemen, you have a vested interest in remembering this!

At the start of this new year, *Flourish* magazine's team and the entire New Roots Herbal family wish you a wonderful 2017 year full of love, great health, and happiness, and—most importantly—one that will allow you to flourish!

Sonia Lamoureux
Editor-in-Chief

flourish

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Editor-in-Chief

Sonia Lamoureux

Graphic Designer

Cédric Primeau

Translation/Revision

Marie-Jo Mercier • Pierre Paquette • Cédric Primeau
Gordon Raza • Mary Zakko

Contributors to This Issue

Sharisse Dalby, RNC • Crystal Ceh, HBSc, ND
Mélanie Brunet and Katrina Besner • Shirley Séguin
Theresa Nicassio, PhD, psychologist

Advertising Sales

Sonia Lamoureux | 450 424-9486 ext. 262
lamoureuxs@newrootsherbal.com
naturalfacts@newrootsherbal.com

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In-House Contributors



Heidi Fritz, MA, ND

A practicing naturopathic doctor since 2007, her areas of focus include women's health, children's health, chronic pain, and more.



Philip Rouchotas, MSc, ND

Well-known in the community as a naturopathic doctor, associate professor, and editor-in-chief of *Integrated Healthcare Practitioners*.



Gordon Raza, BSc

As the technical writer for *Flourish*, Gord shares his unique perspective on natural health products, nutrition, and active living.



Dany Lévesque, Naturopath

Chinese medicine, herbal medicine, crystal healing, oligotherapy, organotherapy, hydrotherapy, phytochemistry, functional medicine, etc., have no secret for him.

Cho-less-terin

Nice Advice!

by Gordon Raza, BSc

Among the things I look forward to every November is a visit from a friend of mine who sits as the Chief of Cardiology at a hospital in Bonn, Germany. We enjoy peering through life's windshield, discussing all our plans for the upcoming year, along with stealing a glance at the rear-view mirror to reminisce about the fun times we've shared; however, no conversation is complete without me asking him his take on current trends in heart health.

He described in detail minimally invasive procedures to restore and repair damaged arterial walls, known as angioplasty. Better yet, these procedures, in certain cases, can be performed as day surgery. When I asked him about natural strategies to avoid a professional visit to his hospital, he stressed that if you smoke, it's never too late to quit. Coenzyme Q₁₀ was the only supplement he touched upon, citing its antioxidant properties to deter plaque formation within arteries.

Let's continue the conversation... In addition to eating well and being active, there are many natural nutrients you can supplement with to strengthen your cardiovascular status. A nutrient called guggul, extracted from the resin of a tree (*Commiphora mukul*), works within the liver to modulate production of harmful low-density lipoproteins (LDL cholesterol); plant sterols, called guggulsterones, are the marker compounds within guggul that drive this process. Red yeast (*Monascus purpureus*) is an additional nutrient that decreases the liver's production of harmful cholesterol.

Plant sterols are among the most researched of cholesterol-modulating nutrients. These naturally occurring compounds serve a similar function to cholesterol as the main component

of cell walls. Among their many benefits for cardiovascular health is that they compete for and obstruct intestinal absorption sites for harmful cholesterol.

Soluble fibres called *beta*-glucans, found in oats, serve to amplify the beneficial action of plant sterols within the intestines. During digestion, they create a gel that binds to cholesterol-rich bile acids and reduces their rate of absorption. This process allows the liver to break down larger amounts of harmful cholesterol for excretion as bile acids.

Cholesterol is a waxy compound with a tendency to cling to arterial walls; even the healthiest people experience some degree of accumulation. A potent polyphenol (EGCG) in green tea protects cholesterol from plaque formation, the process commonly referred to as atherosclerosis (hardening of the arteries).

These synergistic nutrients found in our **Cho-less-terin** formula enter most discussions regarding cholesterol management and cardiovascular health. Consider **Cho-less-terin** a formula for your health you can take to heart.



Coenzyme Q₁₀ and Cardiovascular Function

by Philip Rouchotas, MSc, ND

Coenzyme Q₁₀ (CoQ₁₀), also known as ubiquinol, is an antioxidant and participant in energy production processes within the cell. Coenzyme Q₁₀ has been shown to benefit several parameters associated with healthy cardiovascular function, most notably reducing blood pressure by up to 17 points;^[1] improving vascular endothelial function (meaning the cells lining the inside of the blood vessels), resulting in a “smoother” pattern of blood flow;^{[2][3]} as well as improving the

heart muscle’s pumping function.^[4] In one study of over 400 patients with heart failure, supplementation with CoQ₁₀ was shown to reduce deaths due to cardiovascular events (9% v. 16% in the placebo group), death from any cause (10% v. 18%), as well as the number of hospital admissions for heart failure–related reasons.^[4] After two years of treatment, patients taking CoQ₁₀ were rated as having less severe heart failure compared to the placebo group, although this was not the case at the beginning

of the study.^[4] Treatment with cholesterol medications called “statins” has been shown to reduce levels of CoQ₁₀, so supplementation in these individuals is likely to be even more important as far as prevention of cardiovascular disease is concerned.^[5]

Doses used in clinical trials for cardiovascular disease generally range from 100 to 300 mg daily. Because CoQ₁₀ is fat-soluble, it should be taken with a fat-containing meal for best absorption.

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Fish Oil and Heart Disease

by Philip Rouchotas, MSc, ND



The amount of research that has been conducted on the topic of fish oil for the prevention and treatment of heart disease is astounding. Thousands of studies are listed on PubMed, the online repository of peer-reviewed medical journals. Fish oil has been shown to:

1. reduce the risk of having a heart attack among high risk patients;
2. improve cholesterol levels;
3. reduce blood pressure; and
4. improve heart function.

The now famous GISSI-Prevenzione trial was a landmark study of patients with established heart disease, that showed benefit from fish-oil supplementation in reducing their risk of having a second, fatal heart attack and reducing their risk of death from heart disease.^[1] This study used a dose of combined eicosapentaenoic acid and docosahexaenoic acid (EPA+DHA) equal to 1 g per day. Since then, additional research has demonstrated other cardiovascular benefits as well. The JELIS study, conducted in Japan, found that

higher doses of EPA+DHA, equivalent to 2 g per day, yield higher benefits, with a reduction in risk of nonfatal heart attack as well.^[2]

Higher doses of EPA+DHA have been shown to raise levels of good cholesterol, called high-density lipoprotein (HDL), which protects against heart disease, and lower levels of triglycerides, which are another predictor of heart-disease risk measured on a cholesterol panel.^{[3][4]} Consumption of fish oil, even at 1 g doses, may reduce systolic blood pressure by up to five points in patients with high blood pressure.^[5] Finally, fish oil may protect against heart arrhythmias (irregular heartbeats). Atrial fibrillation (or “A-fib”) is a common irregularity of heart rhythm, where certain parts of the heart muscle contract in a rapid, ineffective manner; this type of heart irregularity also increases the risk of stroke. Studies have found that having higher blood levels of EPA has been associated with a reduced risk of being diagnosed with a heart condition called atrial fibrillation.^{[6][7]}

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Come Fly with Me

by Gordon Raza, BSc

As motivation to shed some holiday-season weight gain, I set a goal to fit the weight requirements to become a flight attendant. I understand society has progressed and many other, more important criteria are now considered for flying the friendly skies. Just for the sake of it, I crunched some numbers using body mass index (BMI), a formula once employed by many airlines. At 5' 11" (180 cm), I'd have to tip the scales at 180 lb (82 kg) or less to take flight. Needless to say, I proceeded to set a goal within reach... A modest 15-pound (7 kg) weight loss would suffice for a smooth landing within the moderately overweight category populated by 40% of adult Canadian males according to Statistics Canada.

I have willpower, but still needed help; with this in mind, I enlisted **SlimmerSystem** as an ally to reach my personal goal.

SlimmerSystem delivers no less than 23 potency-validated botanicals, vitamins, and minerals which serve to make energy storage and use more efficient. These nutrients also

limit the urge to consume empty calories that inevitably get stored as fat!

Standardized extracts of *Garcinia cambogia* and *Coleus forskolii* forge the botanical backbone of the formula in the dual role of inhibiting fat storage while activating stored fats. *Garcinia cambogia* also signals the sensation of feeling full to the brain.

A potent extract of *Gymnema sylvestre* and the bioactive form of the mineral chromium (chromium picolinate) address insulin production and use by cells. *Gymnema sylvestre* supports insulin production, while chromium picolinate improves the ability of cells to employ insulin for glucose delivery critical for cellular energy production. This normalizes blood glucose levels that can reduce calorie cravings and mood swings.

Choline (bitartrate), inositol, and betaine hydrochloride help rid the body of excess fat by helping the liver break down fats for excretion.

The thermogenic trio of green tea (75% EGCG), ginger, and *Capsicum* collectively suppress appetite and accelerate calorie consumption. Kola nut extract, with naturally occurring caffeine, lends an energy lift to our formula.

The recommended daily allowance of specific vitamins and minerals critical for metabolic performance, along with nutrient-rich spirulina, make **SlimmerSystem** complete.

“Don’t change much” is trending as a health mantra for Canadians. I’ve identified a few beneficial changes I could make; among them is a little help from **SlimmerSystem**!



For Beautiful Memories

by Dany Lévesque, Naturopath , and Gordon Raza, B.Sc.

When planning a vacation, we prepare for the many adventures we'll experience as tourists; however, we also have to consider preparing our intestines for the many microbes that will be paying us a visit.

Fruits and vegetables, whether exotic or those we may eat on a routine basis back home, all have unique bacterial fingerprints that reflect their unique environment and farming practices. With this in mind, even the most careful traveler will encounter novel microorganisms that may cause intestinal distress.

New Roots Herbal's **Travelers'Probiotic** is a product worthy of consideration to reduce the risk of contracting traveler's diarrhea while strengthening immune system performance.

Travelers'Probiotic contains a nonpathogenic probiotic yeast, *Saccharomyces boulardii*, as well as a mixture of various probiotics

that will protect you against the possibility of intestinal disturbances. Thanks to the presence of *S. boulardii* which will act like a first-line battalion, this wide-spectrum probiotic will clean your intestines, and the *lactobacilli* and *bifidobacteria* added to the product will replenish your intestines in order to prolong the balance of your intestinal flora until you return home.

It's best to begin supplementation with one to two capsules daily of the **Travelers'Probiotic** for at least five days before your departure in order to prepare your intestine to face the foreign environment's bacteria in your daily life.

Enjoy your holiday!



“Silent Disease”

Info Worth a Listen

by Gordon Raza, BSc

Osteoporosis, often referred to as the “silent disease,” is generally without symptoms and frequently only diagnosed in the wake of a fragility fracture. What’s worth listening to is the correlation between osteoporosis, hearing loss, and fractures resulting from falls.

Loss of bone mineral density (BMD) associated with osteoporosis can also result in conductive hearing loss. This occurs when the trio of bones within the ear—the incus, malleus, and stapes—become demineralized, brittle, and distorted; thereby compromising their function for the transmission of sound critical for hearing.

Hearing, vision, and sensory feedback from our joints are the main factors that influence our sense of balance. When sensory input does not mesh, it can affect the subtle adjustments our brain

makes that maintain posture. With this in mind, osteoporosis-related hearing loss can contribute to a stumble or fall and an increased susceptibility to a broken hip or wrist.

According to statistics compiled by Osteoporosis Canada, fragility fractures related to osteoporosis exceed the incidence of heart attack, stroke, and breast cancer combined.

Along with being the structural scaffolding for the entire body, our skeletal system is critical to virtually every aspect of our health. Even though postmenopausal women are identified as the demographic most susceptible to osteoporosis, everyone suffers some degree of age-related bone loss.

Maintaining healthy bones requires fueling them with nutrients that tip the scales between bone building

and bone resorption (breakdown) in your favour. In addition to eating well and keeping active, a comprehensive calcium supplement with specific nutrients, scientifically proven to build strong bones, is worthy of consideration. You deserve it!



Our industry-leading bone-building formula, **StrongBones**, is now also available as a vegetarian formula.

Vegetarian **StrongBones** features tricalcium phosphate in lieu of bovine-sourced microcrystalline hydroxyapatite, with a botanical form of glucosamine sulfate to replace the crustacean type in our regular and boron-free **StrongBones** formulae.

The entire **StrongBones** family shares the synergistic strength of 21 additional vitamins, minerals, and nutrients critical for building and maintaining the strong skeletal system you depend upon.



Make Pain and Inflammation History with **Boswellia**

by Dany Lévesque, Naturopath, and Gordon Raza, B.Sc.

Boswellia serrata is native to India, but is also found in the Arabian Peninsula and North Africa.^[1] It produces an oleoresin-gum that oozes from the trunk when cut. Also known as frankincense, it resembles the gum that oozes from the bark of evergreen trees here in North America.

Sustainably harvested gum from *Boswellia* contains active ingredients (boswellic acids) that have been used for thousands of years to fight against inflammation and relieve pain caused by rheumatoid arthritis and osteoarthritis. It has also traditionally been used to treat blood impurities, ringworm, and boils,^[2] to detoxify the liver, and as an antifungal.

Boswellia may also benefit people struggling with an overloaded liver or autoimmune diseases such as dermatitis and asthma. It inhibits the production of leukotrienes,^[3] known to cause bronchial constriction, which may trigger the onset of asthma. One can understand why it has been employed for thousands of years in India for health problems that span from ulcers to pulmonary congestion and tumours.^[4]

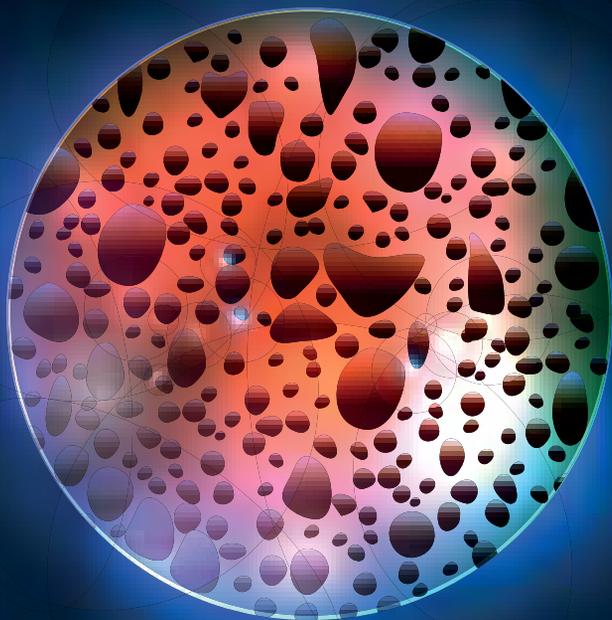
New Roots Herbal's Boswellia Extract is potency-validated to contain 35% boswellic acid. The action of this critical compound is renowned for relief of acute and chronic inflammation. Clinical trials have also proven it effective for relief of arthritis-related pain and stiffness of the knee.^[5]

Boswellia extract has long been a critical nutrient in our pain- and inflammation-management products such as Anti-Inflamma and Joint Pain Relief. As a single ingredient, it can deliver targeted action in a therapeutic dose, for less pain and increased range of motion. This can have a positive impact on weight-bearing joints such as the knees and hips to fit your active lifestyle.



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Osteoporosis A Primer on Bone Health

by Philip Rouchotas, MSc, ND

Osteoporosis is a condition of decreased bone mineral density (BMD) and increased fragility, predisposing one to fracture, even from seemingly minor impacts or bone stress.^{[1][2]}

It is most commonly associated with age, and is classically seen among postmenopausal women; however, men are also affected, and certain factors increase risk for bone loss even among younger people. For instance, individuals with celiac disease, inflammatory bowel disease, or other conditions characterized by nutrient malabsorption are at elevated risk; so are smokers, patients with hormonal conditions such as hyperthyroidism, patients on medications such as prednisone (a corticosteroid often used for autoimmune conditions) or antihormonal medications such as those used to treat breast cancer, or patients undergoing premature or early menopause.^[3] This article discusses some of the lifestyle- and nutrient-based strategies that are known to prevent bone loss and increase bone density.

Basic Bone Physiology

Bone density is the result of a constant flux in bone-remodelling processes. In the bone tissue, *osteoblasts* are cells that continually secrete new bone matrix, resulting in new bone tissue and increased bone strength. On the other hand, *osteoclasts* are cells responsible for breaking down existing bone tissue, releasing calcium and other minerals into the bloodstream. When the activity of osteoblasts outpaces that of osteoclasts, bone density increases; when osteoclasts outwork osteoblasts, bone is lost. Factors such as exercise; intake of key nutrients such as protein, calcium, vitamin D, etc.; and the presence of estrogen and androgens all increase osteoblast activity. On the other hand, poor diet, caffeine and alcohol intake, smoking, and excess levels of corticosteroids can increase osteoclast activity and result in accelerated bone loss.

Exercise

One of the most powerful interventions for maintaining

and even increasing bone density as well as reducing fracture risk is exercise.^[1] The two single most important stimuli for bone and muscle growth are 1) the physical stress of exercise on these tissues, and 2) adequate protein intake.^[2] Exercise directly affects bone remodelling. In addition, improving balance and muscle strength through exercise will help prevent falls. A 2016 review on the bone effects of exercise reports that “multi-component training, including aerobic activity and other types of training (resistance and/or strength exercises), is the best kind of exercise in improving bone mass and bone metabolism in older adults.”^[1] Whole-body vibration training has also been shown to be effective. Other organizations simply recommend regular physical activity at least 3–5 times per week.^[2] The bottom line is that in our sedentary society, any form of getting active will be of benefit.

Protein Intake

Although there is a common perception that the main bone

nutrient is calcium, protein intake is probably even more important. According to Heaney, protein makes up 50% of the volume of bone, and up to one-third of its mass.^[4] Protein provides the structural matrix for bone, and also stimulates growth factors such as insulin-like growth factor (IGF-1) that promote new bone development.^[4] Although it has been argued that protein intake can increase urinary calcium excretion, it appears that it also increases intestinal calcium absorption, and that these two offset one another.^[4]

Current recommendations for optimal dietary protein intake in relation to bone health are approximately “1.0–1.2 g/kg body weight per day, with at least 20–25 g of high-quality protein at each main meal.”^[2]

Calcium and Micronutrients

As the main mineral component of bone, calcium supplementation is commonly recommended for maintaining bone density. It is not uncommon to see very high dosages often prescribed, up to 1500 mg calcium per day. Recently, evidence has suggested that such high intakes of calcium in isolation, apart from other micronutrients, may not be such a good idea. Data has emerged suggesting that excess calcium may be deposited in other tissues as well,



such as blood vessels, which may contribute to atherosclerosis and increased risk of heart disease.^[5] It has been suggested that more modest doses of calcium (under 1000 mg), accompanied by other minerals and micronutrients, may be more appropriate. Indeed, there is much evidence to suggest that a type of synergy exists between these micronutrients, such that the addition of each may further increase the benefit of calcium on bone density.

For instance, the addition of vitamin D supplementation to calcium has been shown to reduce overall fractures by 15% and reduce hip fractures by 30%.^[6] Another study found that the addition of vitamin D supplementation to calcium and a bone medication resulted in an additional 25% decrease in markers of bone breakdown, compared to calcium plus the drug alone (without vitamin D) among women deficient in vitamin D.^[7] Similar results have been shown for other micronutrients as well, including magnesium, zinc, boron, silica, manganese, and vitamin K.^{[8][9][10][11][12][13]}

Finally, we consider the importance of calcium form. Evidence suggests that calcium hydroxyapatite may be preferable over other types of calcium, such as calcium carbonate or calcium citrate.^[14] Calcium hydroxyapatite is thought to be more bioavailable, and has been shown to result in greater increases in bone mineral density (almost double over a period of three years) compared to calcium carbonate.^[14]

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I·n·t·e·r·m·i·t·t·e·n·t· · F·a·s·t·i·n·g

Latest Diet Fad or the Holy Grail of Weight Loss and Longevity?

by Crystal Ceh, HBSc, ND

Look around you: Obesity is a global health concern that affects the health, wellbeing, and longevity of individuals, and is considered an epidemic of our modern times.

According to 2014 statistics from the World Health Organization (WHO), 39% of adults are overweight, and 13% are considered obese. More alarmingly, there are more than 42 million children under the age of 5 who are overweight or obese as of 2013.

In Canada, 54% of adults are considered overweight, with 1 in 4 of these adults being obese.

Since obesity is correlated with increased prevalence and risk

factors for nearly every chronic disease (think diabetes, heart disease, cancer etc.), it's no wonder that people and practitioners alike are always in search of the next latest tool, strategy, or supplement which can help tackle this huge problem.

We know that lifestyle interventions (i.e. diet, exercise, stress management) play a fundamental role in the success of both short- and long-term weight management, and daily caloric restriction (DCR) is perhaps the most prevalent strategy for weight loss. While there are many continuous restrictive diets that manipulate macronutrient content, like the low-carbohydrate Atkins Diet or the more balanced

Zone Diet, all of them have two things in common: 1) reduced caloric intake; and 2) a single active phase of weight loss. While people are typically able to achieve rapid short-term weight loss and improvement in their metabolic profile using this strategy, long-term dieting and body-weight loss are also associated with a decreased resting metabolic rate, which may contribute to weight-loss plateaus and weight regain. As a result, long-term weight-loss success rates remain abysmal, leaving us searching further for the holy grail of weight loss and maintenance programs.

Another nutrition strategy that has been emerging in recent years



and has quickly become the next popular diet is intermittent fasting (IF), a broad term that refers to the practice of going extended periods of time without eating. And while there are specific feeding and fasting protocols, we all practice some form of IF every single day—we call it sleeping. Assuming a typical sleep-wake cycle, the time from your last meal at night until your first meal in the morning is considered your fasting window, and the time from your first meal in the morning until your last meal at night is considered your feeding window. So if we are all doing this every day anyway, why is this “new” diet receiving so much hype?

First off, intermittent fasting is nothing new. Humans throughout history have experienced restricted caloric intake in some form, from hunger strikes to food scarcity and famine, and to fasting for religious reasons. What is new and exciting is that the research is just beginning to bring to light the numerous benefits of intermittent fasting for health and longevity. In the grand scheme of evolution, humans and most domesticated animals ate intermittently, and many species adapted themselves to forms of quiescence with the onset of food shortage. Interestingly, many of the genes responsible for quiescence are also involved with the control of lifespan. For instance, rodents fasting either for 24 hours every other day or twice weekly extended their lifespan by 30%, independent of both weight loss and total food intake. They also experienced other health improvements, such as lowered inflammation and oxidative stress, as well as enhanced cellular function and improved responses to stress. The proposed benefits from the studies all fall into the categories of “look and feel better” and “live longer” physiological changes, which include:

- better blood sugar control—better insulin sensitivity, which means nutrients from food going into cells (where they can



get utilized), and decreased risk/prevention of type 2 diabetes;

- better cell functioning—less damage to DNA, and better repair of damage to cells if it does happen;
- better brain functioning—including memory, decision-making, and reduced risk of Alzheimer’s disease and dementia;
- lowered blood pressure and cholesterol levels—decreasing the risks of heart disease and stroke;
- reduced incidence of prostate, breast, and pancreatic cancers; and
- increased metabolism and fat-burning capacity—better body composition and leaner physique.

While all of this data sounds impressive and compelling, you should take it with a grain of salt, as rodent and monkey experimental results are hard to extrapolate to human subjects. So before we start skipping meals or entire days of eating, let’s take a look at the human research, as well as

the specific intermittent fasting protocols.

The majority of popular intermittent fasting protocols fall into one of three categories: alternate-day fasting, whole-day fasting, and time-restricted feeding. Alternate-day fasting (ADF) involves alternating between fasting days where you consume only one meal consisting of 25% of your daily caloric needs (so a modified fast in this sense), and ad libitum days, meaning you eat as much of anything you want.^[4] Whole-day fasting (WDF) involves selecting 1–2 days of complete fasting per week, followed by ad libitum eating on the other 5–6 days of the week. Some programs also allow for food intake up to 25% of daily caloric needs on the fasting days, where men consume approximately 600 kcal and women consume 500 kcal, making it a modified fast. Time-restricted feeding (TRF) involves eating the same way daily, with certain number of hours allotted for feeding and fasting windows, ranging from 12 to 20 hours of daily fasting and 4- to 12-hour feeding windows. Many of the time-restricted feeding protocols also vary on the types of

foods consumed, as well as on the timing of macronutrients according to exercise schedule.

Alternate-Day Fasting

Similar to rodent studies, short-term (two weeks or less) alternate-day fasting studies in humans showed no effect on body weight in normal-weight human subjects. However, when the studies extended to at least three weeks duration, a weight reduction of approximately 2.5% body weight was noted, and researchers proposed the effect may have been due to the inability of subjects to consume enough calories on refeeding days to maintain their body weight.

In a review study by Barnosky et al., findings from seven ADF studies resulted in subjects losing 3–8% of their body weight after 3–24 weeks of treatment, with the most significant weight loss occurring in the subjects that were provided meals on the fasting days. On average, studies on ADF also show a faster rate of weight loss as compared to other intermittent fasting methods, with the average rate of weight loss being 0.75 kg per week versus 0.25 kg weight loss per week. More importantly as it relates to chronic disease risk factors, visceral fat (the fat around your midsection and internal organs) was reduced by 4–7% in five ADF studies, over the course of 6–24 weeks. Unfortunately, the studies measured visceral fat indirectly with waist circumference, and not directly with MRI or DEXA scans. However, waist circumference is a widely used objective measurement that highly correlates with visceral adiposity, as well as increased risk for heart disease, diabetes, and other chronic diseases, so it does offer some clinical insight even here. Regardless, body-weight reduction and fat-mass reduction have been consistently shown in ADF protocols, and have been demonstrated in obese, overweight, and normal-weight individuals. Several ADF studies have also demonstrated reductions

in cardiovascular disease risk, with reductions in total cholesterol, triglycerides, and LDL-cholesterol levels, although inconsistently.

Dietary changes and exercise with the goal of weight loss are considered first-line therapy for those individuals with prediabetes, and clinical trials have consistently demonstrated that intensive dietary and exercise interventions can completely prevent type 2 diabetes in high-risk prediabetic people. Not surprisingly, these studies also showed reductions in fasting glucose and insulin levels in these subjects. Several ADF studies on prediabetic individuals have also assessed these parameters and found consistent, yet minor (3–7% reduction) decreases in fasting glucose levels, and moderate reductions (20–30%) in fasting insulin levels over 8–12 weeks, with the greatest reductions observed in the longer-duration studies. Finally, the Barnosky et al. review compared ADF to the daily caloric restriction (DCR) strategy, and found the results for weight loss, visceral-fat loss, reduced fasting insulin levels, and type 2 diabetes risk reduction all comparable in effectiveness.

Whole-Day Fasting

Similar to ADF trials, whole-day fasting (WDF) studies consistently showed reductions in body weight and body fat. Interestingly though, all of these studies combined either 1–2 days of fasting (or modified fasting where the subjects consumed a small amount of food on fasting days) and overall caloric restriction, that is, the total weekly caloric intake was lowered, and not ad libitum as the original definition of WDF implies. When compared to daily caloric restriction (DCR), the losses in body weight and body fat were no different between groups, i.e. they were equally as effective. And when compared to control subjects consuming their regular eating pattern, WDF showed significant reductions in body weight and fat.



WDF studies have also been shown to help lower coronary heart disease risk in overweight and obese women, although with varying results. Many of these studies reported significant reductions in blood pressure, fasting triglyceride levels, total cholesterol, LDL cholesterol, blood pressure, and high-sensitivity C-reactive protein, and the results were comparable to daily caloric restriction control subjects. It's important to note that not all of the studies used the same number of fasting days per week, the studies that required two fasting days per week differed in whether the days were consecutive or nonconsecutive, and not all of the studies reported blood lipid or blood pressure changes, which limits the ability to compare the studies as a whole.

Time-Restricted Feeding

To date, 11 studies have been completed that evaluated the effects of TRF on body weight: two looked



at the effects of a 4-hour TRF, three tested the 7–8-hour TRF, and six studied the 10–12-hour TRF. The studies which assessed the 4-hour TRF showed no changes in body weight in the subjects, as they were instructed to eat ad libitum to maintain their body weight. Of the three studies that examined the 7–8-hour TRF, only one showed a 5% reduction in body weight after four weeks of intervention, despite similar study design. It's possible that energy intake was lower in this one study compared to the other two, but it's uncertain to know for sure, as energy intake was only measured in one of the other studies.^[14] Trials that looked at the 10–12-hour TRF demonstrated consistent reductions in body weight of 1–3%. However, it should be noted that a majority of these trials were Ramadan trials, where the feeding window occurred at night, and thus, the feeding window would actually be limited, as 7–8 hours would be typically used for sleeping.

Stote et al. conducted a pilot trial using the 4-hour TRF, which is the only study included in the Tinsley & La Bounty 2015 review, because it met the inclusion criteria of not being a Ramadan trial. This study involved a randomized crossover design with two 8-week periods of consuming either 1 meal/day or 3 meals/day, separated by an 11-week washout period. Subjects were allotted a 4-hour TRF window in the evening during the 1 meal/day phase of the trial. After the 1 meal/day phase, results showed mixed positive and negative outcomes. The subjects lost body weight as well as fat mass and gained fat-free mass after the 1 meal/day phase. However, they also increased total cholesterol, LDL cholesterol, and blood pressure, which are known risk factors for cardiovascular disease. Due to the limited data on TRF, as well as the mixed results in health markers, it's difficult to draw any hard conclusions about the effectiveness or safety of TRF.

The research for IF is promising, but obviously has many limitations. When taken as a whole, the studies have huge variations in types of protocol, duration, subject sample size, and measurement outcomes. As a result, it's difficult to compare the effectiveness of the IF protocols. Also, assessing whether a nutritional strategy is effective for long-term weight-loss success, that is weight loss followed by weight maintenance, requires lengthy clinical trials, which are often difficult to conduct. Any claims on improving longevity also require following large groups of people following this nutritional strategy over the long haul, something that has yet to be done in humans. However, the preliminary evidence for IF has shown that it's at least as effective as daily caloric restriction for weight loss, fat loss, and a host of other health markers. So for people who find traditional methods of daily caloric restriction more challenging, IF may be considered an alternative approach for weight

loss and improved health. And beyond the scientific research, the anecdotal reports of weight-loss success, striking before-and-after photos, and social-media buzz surrounding IF as of late make this nutritional strategy incredibly appealing to the mainstream market. So, are you convinced you should take the plunge and give IF a try? Not so fast (excuse the pun!)...

There are a few other important considerations to take into account. Firstly, when it comes to long-term weight loss success, the issue of compliance comes into play. If one can't stick to the regime, it doesn't really matter how good the program reportedly is or that it has a mountain of evidence to support it. Fasting or prolonged energy restriction will test hunger and satiety signals, and people could experience many unwanted side effects from energy deficits that make adherence over the long haul difficult or impossible. And while short-term weight loss is achievable with IF, many people just may not be cut out for this kind of long-term dietary technique.

Another thing to consider is that IF may indirectly lead to developing poor overall dietary habits, especially if one follows an ad libitum style of eating on the nonfasting days. The studies reviewed showed that most of the protocols had subjects following IF alongside caloric restriction, so people were consuming less overall calories on a weekly basis. And that's fine and dandy in a controlled setting, but out there in the real world, people may interpret IF as a free-for-all on nonfasting days and just binge-eat nutritionally devoid junk food—which certainly doesn't help instill healthy relationships with food, and is certainly not a strategy to consider for anyone with a history of any eating disorder.

The final thing to consider before you give IF a try is whether or not this kind of strategy is safe in both the short and long term. Anytime

you restrict calories significantly with the aim of weight loss, you need to consider what you're eating as well. A thousand calories of donuts, chips, and beer is not the same thing as eating a thousand calories of vegetables, fruits, healthy fats, and lean proteins. Sure, you'll probably lose weight with both, but chances are you will feel and function very differently

with each of these protocols. A sensible approach to effective short- and long-term weight loss must consider caloric restriction without malnutrition or deficiencies, and in controlled settings, this is accounted for as researchers usually provide the diets or at least provide dietary guidance for subjects. Seeking the help of a trained professional, such as a registered dietician, holistic

nutritionist, experienced nutrition coach, or naturopathic doctor who can monitor you while you try IF as a weight-loss strategy is strongly recommended, especially if you have any preexisting medical conditions that could be affected. And although most of us are lured with the appeal of rapid weight loss and extreme body transformations, remember that most successful long-term weight loss often comes from small, incremental changes to nutrition, exercise, and lifestyle habits. So if you're going to commit to fasting, remember to take it nice and slow!



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Crystal Ceh, HBSc, ND
coreessentialshealth.com

Dr. Bjorndal has a clinical focus in the natural treatment of mental illnesses such as depression, anxiety, bipolar disorders, eating disorders, OCD, ADD/ADHD, and schizoaffective disorders.

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Morning Yoga Exercises

by Mélanie Brunet and Katrina Besner

Interested in a morning yoga routine? This short sequence of postures may be done in 10 minutes—or more, depending on your free time. Take advantage of the many benefits of this exercise. Find a quiet place where you will be comfortable, and open up your yoga mat the instant you have a moment to yourself!



Easy Posture (*Sukhasana*) and Alternate Breathing

1. Take the time to sit comfortably on the floor or on a folded blanket, on your ischium (your buttocks bones), legs elongated in front of you.
2. Bend your knees and slide your feet under the opposite leg, while keeping a slight distance on each side with your groin. Relax your knees towards the floor, and keep your feet relaxed as well.
3. Push your pelvis bones towards the floor, and lengthen your spine. Adopt a neutral position at your shoulders and pelvis. Open your chest, and relax your shoulders.
4. Place your hands on your knees, palms facing the sky or the ground. Push your coccyx towards the floor, lengthen your spine, and lower your shoulders. Push your lower ribs slightly forward.
5. Close your right nostril using your right thumb with a slight pressure.
6. Inhale deeply through your left nostril, inflate your abdomen, and then your ribcage.
7. At the end of your inhalation, release your right nostril, lifting your thumb, and close your left nostril with your ring finger.
8. Exhale using your right nostril.
9. Inhale through your right nostril.
10. Exhale through your left nostril after closing your right nostril with your thumb and release your left nostril by lifting your ring finger.
11. Continue by concentrating on your breathing for one to five minutes.



The Cat Pose (*Maryajasana*)

1. Take the position on all fours, resting on your hands and knees. Your fingers should be pointing forward and be well-separated. Your knees are slightly separated and aligned directly under your hips. Your arms are straight, but your elbows slightly bent, and your wrists and shoulders are aligned to form a 90° angle with the ground. Your head is extended along with your spine; keep your gaze on your ground.
2. Exhale by rounding your back towards the ceiling, and drop your head down. Position your gaze towards your navel, and pull in your abdominals.
3. Inhale and extend your spine, return to a neutral position, and look back to the ground. Make sure to keep your shoulders and knees in your starting position.
4. Repeat at your own pace for one to five minutes, concentrating on your movements and breathing.

Child's Pose (*Balāsana*)

1. Sit on your heels, your back straight, big toes glued together, hands rested on your knees, and spread your knees to the width of your hips.
2. Breathe in by stretching your back, and then exhale by lowering your body forward. Gently lay your forehead on the floor; remember to keep your coccyx in contact with your heels, and position your upper body so that the end of your ribs rests on your thighs.
3. Stretch your arms along your body, and place the back of your hands on the floor near your feet. Relax your shoulders to the floor, and widen your shoulder blades.
4. Keep the pose for one to five minutes, remembering to inhale, inflating your abdomen, and exhaling by letting your belly deflate like a balloon. Get out of the pose by pushing your hands into the ground and slowly ascend to your knees, vertebra by vertebra.



Have you enjoyed this routine? To learn more about yoga, join us at the Palais des Congrès de Montréal on February 11 and 12 for the Yoga Expo. In addition to exploring different types of yoga, this wellness expo will allow you to connect, be nourished, and be inspired!

Namaste

Mélanie and Katrina

To Learn More

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Mélanie Brunet and Katrina Besner

Katrina and Mélanie are passionate about yoga. They are the cofounders of Expo Yoga, which will be held on February 11 and 12, 2017 at the Palais des Congrès in Montreal. They sincerely believe that this discipline can make a difference in everyone's life and can greatly contribute to the collective wellbeing of society.



Two Simple Ways to Revive the Love in Your Relationship

by Theresa Nicassio, PhD, Psychologist

Are you feeling lonely, even though you are in a relationship?

Are you missing that “loving feeling” that you used to feel when you are with your partner?

If you are feeling this way, you are not alone. The good news is that there may be some very easy things that you can do to start turning this around. You can begin as soon as today, if you are game to give it a go!

Unfortunately, skills that are important for maintaining a healthy relationship are not taught very well in our current society. This is made worse by mistaken beliefs about what the causes of relationship breakdown are.

On that front, most people believe that the two biggest reasons for conflict in relationships are associated with money and sex. The reality is that while these issues can be present, most often they are just symptoms of the hurt that was caused by a lack of nurturing the two most important core elements in a relationship: time and presence.

The single most precious gift you can give to someone you care about is your time. Even so, it is easy to overlook this fact and start to give your time to other things, people, and/or activities, and not realize the negative impact this shift can have on your partner.

That said, you can spend all the time in the world with your partner,

while not really being present. If you are “together” with someone, but not actually connecting with them, they will still feel lonely—perhaps even lonelier than they would have felt if you weren’t actually spending time with them. Computer games, watching TV, working on the computer, or texting on your phone might seem benign, but actually can become silent enemies to presence, creating a serious wedge in your relationship.

It may surprise you to learn that improving your relationship may be easier than you think by merely spending more time with your partner—and being more present when you do. The hardest part is making the decision to start to do things that are not your automatic “habits” that you are used to doing.

Changing familiar habits and having the courage to try new things can be a big stumbling block. That said, if you break such changes into small achievable elements, you will be better able to succeed in your efforts and enjoy the privilege of a loving, lasting, and life-giving relationship. What better time to start than this Valentine’s season?



Theresa Nicassio, PhD, Psychologist

Registered Psychologist, Raw-Food Chef and Nutrition Educator, and the award-winning Author of *YUM: Plant-Based Recipes for a Gluten-Free Diet*.

Benefits of Cocoa Butter for Your Skin

by Shirley Séguin



You probably know cocoa as the main ingredient for making chocolate. On the other hand, cocoa butter has very interesting properties, not only for your overall health, but also for your skin!

We know that cocoa is rich in polyphenols, belonging to the same antioxidant group as green tea and red wine. In fact, cocoa is 50 times more concentrated in polyphenols than grape seeds, but it is good to underline that it also contains vitamins E and B₁ as well as magnesium. What do antioxidants contribute to our skin? They protect it from premature oxidation! Basically, these are our greatest allies against aging skin.

A Little History

Cocoa butter is simply a fat originating from the pressure of the beans in order to make cocoa powder. In the past, the Aztecs already used cocoa for its many health virtues and for their beauty rituals. At that time, cocoa byproducts were strictly reserved for the king and the nobles. They used it to spice up their food and to make a drink to overcome fatigue, thanks to theobromine. At the same time, they used cocoa on their skin for its healing and moisturizing properties.

We can therefore conclude that wraps or simply chocolate-based cosmetics can not only soften your skin, but also give you a moment of pure wellbeing!

Benefits

- Moisturizes dry to very dry skin
- Promotes the healing of scars
- Prevents skin aging
- Restores radiance to the skin
- Helps fight cellulite

DIY Recipe for Cocoa Dry Shampoo (Dark Hair Only)

- 3 tbsp. cocoa powder
- 3 tbsp. cassava starch
- 1 tsp. baking soda

Mix all the ingredients together and place them in a sprinkler-style container.

Chocolate Face-Mask Recipe

- Approximately 6–7 pieces of dark chocolate
- 1 tsp. argan oil
- A little honey

Melt chocolate. Mix all the ingredients together until a homogeneous paste is obtained. Let cool and apply it warm-cold. Leave it on for 5 to 10 minutes, then rinse.

Pro Tip: If you have a medium to dark complexion, you may directly use raw cocoa powder as a bronzing powder!



Shirley Séguin

Founder and author of the mabeautebio.com blog, she is an expert in natural cosmetics and a professional makeup artist.

Dark Chocolate

'Tis the Season of the Guilty Superfood

by Dr. Heidi Fritz, MA, ND

Dark chocolate, defined as 70% or greater cocoa mass, is a guilty pleasure or a potent superfood, depending on your perspective. Cocoa, known in herbal medicine as *Theobroma cacao* L., is high in a type of antioxidants called flavonoids; the specific group of these molecules as found in dark chocolate is among the most potent antioxidants in vivo, that is, when consumed by humans or animal studies.^[1] In studies, researchers feed subjects a set amount, usually 20–50 g of dark chocolate, and then draw blood samples to measure changes in actual antioxidant capacity in the blood. Measured in this way, the antioxidant capacity of dark chocolate rivals foods such as berries and fruits.

Nutritional Value

In addition to antioxidants, cocoa is rich in trace minerals. Analysis of dark-chocolate products shows that it is a good source of magnesium (roughly 250 mg per 100 g chocolate) and iron (10 mg per 100 g), as well as up to 3.5 mg zinc

and 100 mcg selenium in 90% dark chocolate.^[2]

Metabolic Health

Dark chocolate possesses a host of intriguing metabolic benefits, including lowering blood glucose, elevating HDL (good cholesterol), lowering blood pressure, preventing cholesterol oxidation (which is thought to contribute to atherosclerosis), and improving vascular function.^{[3][4][5][6]} A 2016 meta-analysis published in the *Journal of Nutrition* found that cocoa flavonol intake ranging from 166 to 2110 mg per day was associated with improved insulin sensitivity and cholesterol profile.^[7] Cocoa consumption reduced fasting insulin by 2.33 μ IU/mL; this shows that cells are better able to employ insulin to use blood glucose for energy. Cocoa is also recognized to decrease levels of a specific compound (C-reactive protein) responsible for causing inflammation (by 0.83 mg/dL). Although these numbers may appear small, they actually represent notable improvements, especially

when considering that they are induced by the addition of a single dietary agent.

Theobromine, another component in dark chocolate, is thought to be responsible for reducing the “stickiness” of blood—that is, platelet aggregation—thereby reducing the risk of blood-clot formation.^[8] The 2016 meta-analysis also found that cocoa flavonols decreased a marker of “stickiness” called vascular cell adhesion molecule 1.^[7]

Exercise Capacity

Dark chocolate has been shown to improve exercise capacity and alter muscle structure.^{[9][10]} A study of 20 otherwise healthy, sedentary individuals randomized them to receive 20 g dark chocolate per day for three months or placebo. Researchers found that treatment with dark chocolate resulted in a 17% increase of $V_{O_2, \max}$ —a measurement of oxygen uptake within the lungs—as well as maximum work (watts) achieved,

while there were no changes with placebo.^[9] Dark chocolate increases levels of specific proteins in their active forms that benefit skeletal-muscle structure. This improves strength and smooth-muscle tone to benefit posture and balance. It also increases levels of reduced glutathione within skeletal muscles, which acts as a critical intracellular antioxidant.

In patients with peripheral artery disease (PAD), associated with smoking as well as diabetes, consumption of 40 g dark chocolate decreased markers of oxidative stress (NO_x) and increased maximal walking distance by 11% and maximal walking time by 15%.^[10]

Mood Benefits

Perhaps not so surprisingly, dark chocolate also has documented benefits on mood and mental health. Studies have shown that consumption of flavonol-rich dark chocolate blunted the stress response, including the production of inflammatory cytokines and stress hormones, in men undergoing acute psychosocial stress.^[11] Another study found that consumption of cocoa polyphenols significantly improved mood, with subjects reporting improved “calmness” and “contentedness.”^[12]

One study found that consumption of flavonol-rich chocolate counteracted some of the detrimental effects of sleep deprivation.^[13] While sleep deprivation resulted in increased blood pressure, poorer vascular compliance, and poorer working memory, these effects were significantly mitigated when the women consumed flavonol-rich chocolate.

...Taken with a Grain of Salt

While dark chocolate is associated with many health benefits, a small number of prone individuals may exhibit detrimental effects. For instance, the caffeine content in dark chocolate may lead to

overstimulation in some; others may experience aggravation of symptoms such as acid reflux or skin reactions such as eczema. Dark chocolate is also drying to the throat, and persons prone to throat problems such as sore throat or laryngitis may need to lay off if you are feeling run down.

Finally, keep in mind that although rich in antioxidants, dark chocolate is also rich in calories; 30 g or about three squares of Lindt 70% contains 180 calories! You can also reap the benefits of this plant in homemade hot-chocolate beverage made using real cocoa (rather than the commercially available, sugar-loaded hot-chocolate powders). Add a small amount of honey for sweetness. Enjoy this superfood in moderation!

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Love Your Heart

Ten Foods to Eat for a Heart-Healthy Diet

by Sharisse Dalby, RNC

Valentine's Day gives us a great excuse to spend some extra time learning to show our heart a little extra love. We often don't think about the importance of heart health until a problem arises... According to the World Health Organization, cardiovascular diseases are the number one cause of death worldwide—that's an estimated 17.5 million people a year.^[1]

However, simply changing your diet can help stop or even reverse your risk of heart disease. That's a good reason to show your heart a little extra love this season! These 10 foods are my most-recommended foods to eat for a heart-healthy diet:

Salmon is a great source of omega-3 fatty acids, which help to decrease triglycerides and lower your risk for atherosclerosis and arrhythmia—two of the top heart diseases.

Pomegranate seeds help to lower blood pressure due to their antioxidants and bioactive polyphenols. Hypertension (elevated blood pressure levels) is known to cause heart attacks, heart disease, and atherosclerosis.

Avocados are packed with the monounsaturated fat oleic acid. Several studies have shown that this

fat helps to reduce total cholesterol levels and blood triglycerides by up to 20%, while increasing the "good" HDL cholesterol by up to 11% and decreasing the "bad" LDL cholesterol by up to 22%.^[2]

Red wine has long been said to reduce your risk of heart disease... if consumed in moderation of course! The polyphenols in red wine may help protect the lining of blood vessels in your heart, while resveratrol helps prevent damage to them—which may reduce LDL cholesterol and prevent blood clots.

Blueberries contain anthocyanins, an antioxidant that benefits the heart by preventing the buildup of plaque in arteries; it also helps to lower blood pressure. One study found women who ate more than three servings a day had a 32% lower risk of a heart attack.^[3]

Nuts and seeds may help to lower LDL cholesterol levels with their unsaturated fats and fibre content. They're also a great source of vitamin E, which is thought to help prevent plaque buildup in your arteries.

Green tea was given five times a day to over 40,000 adults and resulted in a 26% decrease in risk of death from heart attack or stroke.^[4]

It's believed this is due to their ability to lower cholesterol.

Dark chocolate, with a high cocoa content (70% or higher), can be very beneficial to your heart health. Besides being a great source of soluble fibre, its flavonols can help to reduce blood pressure by relaxing the arteries.

Chia seeds boast a higher content of omega-3 fatty acids than salmon, helping to lower blood pressure and cholesterol as well as reverse inflammation, making them incredibly beneficial in protecting your heart.

Beets contain the phytonutrients betanin, isobetanin, and vulgaxanthin. They help to reduce inflammation, which can be the precursor to many heart diseases such as atherosclerosis.

Consuming a diet high in fruits, vegetables, fibre, and healthy fats while reducing your overall sodium, added sugars, and *trans* fats are important steps in protecting your heart.

A great first step is to begin by including these 10 heart-loving foods in your diet!



Sharisse Dalby, RNC

Registered nutritional counselor; helps families and children beat their health struggles, focusing on digestive and emotional issues.

sharissedalby.com

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3. <http://articles.mercola.com/sites/articles/archive/2013/01/28/berries-reduce-heart-attack-risk.aspx>
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Heart “Beet” Ginger Soup

by *Sharisse Dalby, RNC*

Here’s a recipe to get you started on your heart-healthy diet.

Ingredients

- 4-6 large beets
- 2 celery stalks
- ½ head of cauliflower
- 1-2 tbsp. of fresh ginger, grated
- 1 sweet onion
- 4 cups of low-sodium vegetable broth

Instructions

Peel the beets and cut the vegetables into large pieces.

Place all of the ingredients in a large pot and bring to a boil. Once it begins to boil, turn it down to a simmer and leave for one hour.

Using an immersion blender, blend until smooth.

Serves 4

Tip: You can also place all of the ingredients in your slow-cooker and cook on low for 8 hours. Blend before serving.

Salted Caramel Frosted Brownies

provided by the CHFA

Brownie Ingredients

- ½ cup organic coconut oil, melted
- ½ cup maple syrup
- ¼ cup organic unsweetened almond milk
- 2 organic eggs
- 1 tsp. organic vanilla extract
- ¾ cup chopped organic dark chocolate
- ½ cup organic coconut flour
- ½ cup organic oat flour
- ½ cup organic raw cocoa powder
- ½ tsp baking soda
- 1 tsp. flaked sea salt

Frosting Ingredients

- 1 cup cold solid organic coconut milk*
- ¼ cup organic raw cocoa powder
- ¼ cup Xylitol or Lakanto (monk fruit sweetener)

Salted Caramel Ingredients

- 4 organic Medjool dates
- ¼ cup boiling water

*Not all brands of coconut milk are the same. For best results, look for ones without the emulsifier guar gum in the ingredient list, or shake cans of full-fat coconut milk to find solidified coconut cream and very little water. Ensure coconut cream is very cold for best results.

Instructions

Preheat oven to 175 °C (350 °F).

Line a 9-inch square baking pan with parchment paper; set aside.

In a large bowl, whisk together melted coconut oil, maple syrup, almond milk, eggs, and vanilla. In another bowl, combine chocolate, coconut flour, oat flour, cocoa powder, and baking soda. Fold into wet ingredients. Spread into baking pan evenly and bake for 12 to 15 minutes until lightly puffed, but centre is still wobbly.

Let brownies cool in pan, then cover with plastic wrap and chill for one hour before frosting.

Remove brownies from pan and spread with frosting. Drizzle with caramel sauce and sprinkle with sea salt. Slice into 16 equal pieces.

For frosting: Whip coconut milk, cocoa powder, and sweetener on high speed with a stand mixer until light and fluffy—about 5 minutes.

For caramel: Blend pitted dates and boiling water together using an immersion blender or blender until very smooth.

Gives 16 brownie squares.





Sugar-Free Hot Chocolate!

by *Sonia Lamoureux*

This recipe is an excellent alternative to commercial preparations or recipes that are too rich and too sweet. I make it regularly for my children, and they do not taste the difference despite its simplicity.

Ingredients

- 2 cups of milk (or vegan milk)
- 2 tbsp. of cocoa powder
- 2 tsp. of Stevia Sugar

Instructions

In a small saucepan, combine milk, cocoa powder, and Stevia Sugar over medium heat. Whisk regularly until mixture is warm. Serve and enjoy.

Chocolate Muffins

by *Sonia Lamoureux*

Ingredients

- ½ cup of dates, puréed
- ½ cup of nonfat plain yogurt
- 1 cup of almond milk
- ¼ cup of coconut oil, melted
- 1 tsp. of vanilla extract
- 2 eggs
- ½ tsp. baking soda
- 1 tbsp. baking powder
- 2 tbsp. Stevia Sugar
- A pinch of salt
- 1 cup of whole-wheat flour (or your favourite flour)
- ½ cup of almond flour
- ½ cup of cocoa powder
- ½ cup dark chocolate chips

Instructions

Preheat oven to 175 °C (350 °F).

In a bowl, add the puréed dates, yogurt, milk, coconut oil, vanilla, and eggs. Mix well.

Add baking soda, baking powder, Stevia Sugar, and salt.

Add flour and cocoa powder. Mix well.

Finish by adding the dark chocolate chips.

To prevent the muffins from sticking to the pan, use parchment-paper baking tins and bake for 20 to 25 minutes.

The muffin is ready when a toothpick comes out clean.



Puréed dates : Cover with boiling or very hot water 100 g (about ½ cup) of dates. Let stand for a few minutes, drain, and set the liquid aside. Purée with a hand blender. Add leftover liquid if necessary. The purée should remain relatively thick, but smooth.



ChoosetoCare

GM CROPS GROWN IN CANADA

Crop	Trait	Where on the shelves
01 CORN	Insect resistant, herbicide tolerant	Corn flakes • Corn chips • Cornstarch • Corn syrup • Corn oil and other corn ingredients in processed foods • Sweeteners like glucose and fructose • Eggs, milk and meat* • Some sweetcorn
02 CANOLA	Herbicide tolerant	Canola oil • Eggs, milk and meat*
03 SOY	Herbicide tolerant	Soy oil • Soy protein • Soy lecithin • Tofu • Soy beverages • Soy puddings • Eggs, milk and meat*
04 SUGAR BEET	Herbicide tolerant	Sugar

*Many animals used to produce eggs, milk and meat are fed corn, canola and/or soy

GM FOODS IMPORTED TO CANADA

Crop	Grown	Where on the shelves
05 COTTON-SEED OIL	U.S.	Cottonseed oil • Vegetable oil in processed foods such as potato chips
06 PAPAYA	U.S. (Hawaii)	Papaya in fruit juices and other processed foods
07 SQUASH	U.S.	Some zucchini • Yellow crookneck and straightneck squash
08 MILK PRODUCTS <small>(BOVINE GROWTH HORMONE)</small>	U.S.	Milk solids and powder • Frozen desserts with dairy • Imported mixed drinks with milk ingredients

cban.ca/gmfoods for updates

Thanks to New Roots Herbal, Canadians Have More Information About Genetically Modified (GM) Foods

Genetic modification (also called genetic engineering) raises environmental and health questions, as well as questions about who controls our food and farming.

Canadians Have More Information About What GM Foods Are on the Shelves

Without mandatory labelling, it's difficult to find out where GM foods are on our grocery-store shelves. Support from New Roots Herbal helps CBAN research and monitor GM foods, to provide Canadians with reliable information. We maintain an accurate list of the GM crops on the market, and information on how to avoid eating these GM foods (see table on left).

We Know More About the Impacts of GM Crops and Foods

CBAN investigated the impacts of 20 years of GM crops and foods in Canada, in our groundbreaking research project called *GMO Inquiry*. We documented the environmental, social, health, and economic impacts and risks in a series of six reports. This extensive research is the first of its kind in Canada.

We found, for example, that, contrary to the promise that GM crops would reduce chemicals in farming, herbicide sales have increased by 130% in Canada since GM crops were introduced (1994-2011).

All the reports and their summary pamphlets are posted at gmoinquiry.ca.

We Are Able to Help Amplify the Voices of Concerned Farmers and Consumers

Farmers and consumers both share concerns about who controls our food. New gene sequences created through this technology can be patented, which means that companies can own and control GM seeds.

HOW CAN I AVOID GM FOODS?

Our government does not require labeling. But you can still make a choice:

- 1 Buy certified organic food. Genetic modification is prohibited in organic farming.
- 2 Avoid processed food with corn, canola and soy ingredients.
- 3 Buy cane sugar or organic sugar to avoid sugar from GM sugar beets.
- 4 Choose products with the "Non GMO Project Verified" seal.
- 5 Support farmers who reject GM crops: buy food directly from farmers who do not plant GM corn, canola or soy or use GM grains for meat, dairy or egg production.



Six companies now control over 60% of the global seed and pesticides markets. Recent mergers between these large companies would make them even bigger, and could mean that soon just three corporations will control over half the world's commercial seed market.

CBAN is raising concerns about the possible impacts of these new corporate mergers for the future of food and farming in Canada. We are sharing our concerns with the public, and encouraging the government to consider the impacts of such unprecedented corporate control over seeds.

Together, We Can Create Solutions for the Environment, Farmers, and Our Food

Genetic modification raises many serious issues for farmers and consumers, and for our environment and our democracy. Debating the use of this technology is helping us all to examine the challenges we face, and build the best solutions for a healthy future.

We are proud to be part of the *Choose to Care* vision, and to play our part in helping protect, feed, and care for people and our planet.

Thank you, New Roots Herbal, for your important support of CBAN.

—Lucy Sharratt
Coordinator, Canadian
Biotechnology Action Network



The Canadian Biotechnology Action Network (CBAN) brings together 16 organizations to research, monitor, and raise awareness about issues relating to genetic engineering in food and farming. CBAN members include farmer associations, environmental and social justice organizations, and regional coalitions of grassroots groups. CBAN is a project on Tides Canada's shared platform. cban.ca



The GMO Inquiry is a project of CBAN that tracks GM crops and foods after twenty years in Canada and examines their impacts on the environment, consumers, and farmers. gmoenquiry.ca

Are You Interested to Learn More About Attention Deficit Disorder (ADD) or Mental Health? Simply register at webinar@newrootsherbal.com

ADD

Join us on Monday, January 16, at 8 p.m. EST, to review definitions and diagnostic criteria for ADD, the impact of diet- and lifestyle-based strategies for management, and the role of key nutritional and nutraceutical strategies.

Mental Health

Or join us on Monday, February 6, at 8 p.m. EST, to listen to Dr. Rouchotas

review prevalent medications used to treat mental-health concerns such as insomnia, depression, and anxiety, as well as the shortcomings of these medications. He will also review how to manage ongoing symptoms despite ongoing treatment with prescription medications; how integrating natural medicine can and has been proven to help extensively; and

how to manage symptoms among individuals not yet medicated.



Dr. Philip Rouchotas, MSc, ND

Dr. Philip Rouchotas' areas of clinical focus include mental health, autoimmune disease, metabolic syndrome, and diabetes. He is an Associate Professor at the CCNM and practices with his wife, Dr. Heidi Fritz, MA, ND, at the Bolton Naturopathic Clinic in Bolton, Ontario.

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