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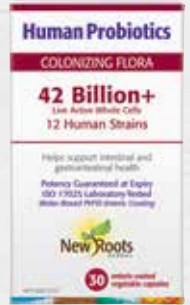
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- Only from fully reacted magnesium bisglycinate; no magnesium oxide
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### Magnesium Bisglycinate Plus 150 mg

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NEW PRODUCTS!

# Editor's Letter



Happy New Year!

Let me start by extending our heartfelt thanks and best wishes to all our readers. We hope that any trials and tribulations will be left in the past, and that the coming year be filled with good health, true happiness, and wonderful company to share it with. We appreciate the feedback we've received and will keep on it

to bring you inspiring articles on health and wellness, along with delicious and nutritious recipes, so you can truly flourish!

As we look ahead to 2020, we invite you to refocus on eye health; this time with an emphasis on AMD and cataracts. For those who plan to "hibernate" indoors, we have some tips on keeping your immune system strong. Should the need arise, we prepared a detailed examination on coughs and how to treat this symptom which presents itself with many conditions. The appetite for added information related to adopting a ketogenic diet seems insatiable. Check out an additional article penned by Guillaume Landry to explore whether it's the right fit for you.

To wrap things up, we offer some fresh takes on healthy eating, with original recipes from our cast of culinary contributors along with a power breakfast smoothie that is sure to impress.

Keep the comments coming and have a healthy, active, and wonderful year ahead!

Sophia Golanowski, BCom, MBA  
Editor-in-Chief

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# Feedback from Last Issue

## Chia Chips Recipe

*The chia chip recipe by Theresa Nicassio looks great; however, I don't have a dehydrator. Could I oven-bake them?*

We touched base with Theresa, and she suggested you could oven-bake them with the door slightly open. So we took the recipe for a test drive.

Preheat oven to 250 °F (120 °C), in convection mode preferably. Line your cooking tray with parchment paper and spread paste as thinly as possible. Two and a half hours worked well for a crisp texture to match the complex and savoury flavour profile.

## MCTs Hope for Dementia Research

*Your article resonated with me. Any ideas how to broach the topic with someone I care for?*

Aging affects everyone, yet being told you're experiencing cognitive decline seems to be more sensitive to discuss than losing a few miles per hour on your fastball. Over the years, we've had readers tell us they've sent their copy of *Flourish* to a loved one to raise their awareness on topics of special interest. Perhaps print a copy (available on our blog) and tell them a neighbour started taking MCTs after seeing this article. Or start a discussion on boosting nutrition in general: We supplement for pain, inflammation, bone loss, and more; why not for our minds?

It will be interesting to see the results of larger-scale research and the impact it will have on healthy aging.

We always like to hear from you...

We appreciate your feedback; let us know if you have any questions about the articles we publish.  
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# Management of Chronic Cough

by Dr. Krysten DeSouza, ND



A cough is one of the most common reasons people visit their doctor. Coughs are annoying; they're loud and can disrupt sleep for an entire household. With most viral infections, a cough can stick around up to 2 weeks after the infection has cleared. But when a cough lasts longer than 8 weeks, it warrants further investigation.

## — What Is a Cough?

A cough is an irritation that triggers a pulmonary reflex. The irritant stimulates receptors in the throat or airways. This signals a nerve to send a message to the brain. The brain then contracts all the muscles in the chest and abdomen to forcefully push air out of the lungs (and hopefully the irritant too!). The irritant could be a microorganism like a bacteria or virus, a dust particle, or simply mucous

dripping from the nasal cavity above. Anything that is not supposed to be there will trigger some kind of immune response.

Our immune systems are truly amazing. They can produce excessive mucous to trap foreign bacteria. They can create a forceful sneeze to expel mucous and dust particles that could be potentially dangerous to us. Immune systems raise body temperature to create a difficult environment for microbes to live. They are highly successful in keeping us alive, but in doing all of this, they can make us feel awful.

Very rarely is a cough just a cough acting alone. Most people who come to the doctor with a cough will have multiple issues going on. Following are the most common reasons for chronic cough:

### Postnasal Drip (Upper Airway Cough Syndrome)

The term “postnasal drip” only refers to the production of mucous in the nasal cavity that spills over into the oropharyngeal (back of the mouth and throat) and lower airways. This definition does not tell us why the mucous is there in the first place. Chronic rhinitis or nasal inflammation from allergies are usually the most common triggers. Seasonal allergies may create nasal itching for a few months, but environmental allergies can continue year-round. These can include allergens like dust, mold, and pet dander. Doing a skin-prick allergy test can raise awareness as to the allergens to avoid, but of course, progress comes with complete avoidance of these triggers.



## Evaluation of Chronic Cough

As naturopathic doctors, we know that assessment of a health concern involves evaluating the whole person. A chest X-ray will help to eliminate the large worrisome diagnoses, so it is not a bad place to start. This is especially true if the person is a smoker, has a family history of lung disease, or has unexplained and significant weight loss in a short period of time.

Assess smoking history and second-hand smoke exposure. This one may seem like a no-brainer, but second-hand smoke exposure can be just as severe in certain individuals. The lungs are able to repair slowly when the exposure is eliminated, but there will always be a little bit of scarring.

Take note of all their medications. ACE inhibitors are a class of blood pressure medication that are known to cause a dry

## Asthma

Asthma is one of the most common causes of chronic cough among nonsmokers. There are the “classic” and “typical” forms of asthma that present with difficulty breathing, wheezing, and chest pain. In this form, a cough signals the onset of an asthma attack or event. However, there is a whole other category of “cough variant asthma”, which includes a cough outside of asthmatic events.

It is thought that in individuals with cough variant asthma, one of the triggers is more consistently present in a smaller quantity. This could be an environmental trigger as mentioned above. This causes airway hyper-responsiveness or slight narrowing of the airways, which means the irritant receptors are poised and ready to signal the cough reflex to the brain. The entire immune system remains on edge, and every little trigger will initiate a cough. It is important to note that this subtype of asthma does not present with a wheeze or difficulty breathing. The cough can present any time of the day, but is most noticeable at night. It is sometimes alleviated with puffers and bronchodilators, but as long as the immune system remains on edge, the cough will persist.

## GastroEsophageal Reflux Disease (GERD)

GERD on its own can cause a cough. GERD in combination with asthma and/or postnasal drip, will drastically increase the intensity of the cough and make treatment a little more challenging. In GERD, there is failure in the signaling of the digestive tract to close the lower esophageal sphincter (doorway to the stomach from the esophagus). Acid from the stomach splashes back into the esophagus and can travel all the way into the mouth. This can present as heartburn, or be completely asymptomatic until it reaches the mouth. Acid is corrosive and can damage our tissues, which is why we have a thick layer of mucous around the inside of our stomachs. But when acid travels into the esophagus, we feel the burning because we don't have that same layer of mucous to protect us. Over time, our bodies will learn to produce mucous in the esophagus, which we can even feel as a lump at the back of the throat. We may feel like we constantly have to clear our throats and our voices may get hoarse or raspy. This excessive mucous can act as an irritant that initiates the cough reflex. Depending on the foods we eat, when we eat them, and how much we eat of them, we may notice this GERD cough all day and all night.





cough days or even months after beginning the drugs. Even once the drugs are discontinued, the ACE inhibitor cough can continue up to 4 weeks later.

Ask about environmental and workplace exposures. Many of us spend more time at work than we do at home. Our workplaces can be dusty and moldy, have poor air circulation, or be excessively dry. All of these factors can trigger a chronic cough in any individual, especially if you are there for more than 5 hours of the day. Coal miners, construction workers, and anyone working around fine dust particles is subject to chronic inhalation and at high risk of developing a chronic cough.

Look at what works and what doesn't. If you've been taking antihistamines like Reactine® and have not noticed a difference, it is unlikely to be an allergic pathway. In this case, asthma and GERD may be more likely. If GERD is suspected, treatment with diet changes and/or reflux medication should eliminate the cough.



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## — How To Manage Chronic Cough

### Dietary Assessment

Changes in diet and elimination of food sensitivities will be the most noticeable with GERD and postnasal drip. Spicy foods are known triggers of acid reflux and should be avoided late at night and in large quantities. Sugar and dairy are among the top mucous-producing agents and can aggravate an already-aggravated immune system. This is especially true during allergy season, when the immune system is already fighting environmental triggers. The addition of sugar and dairy at this time can send the immune system over its threshold and create very obvious allergy symptoms.

### Magnesium Bisglycinate

This is one of my top nutrients for immune and allergic presentations. Magnesium is a very calming micronutrient. It relaxes the airways, lowers a heightened neurological response, and reduces immune overactivity. This is great for both asthma and postnasal drip presentations.

- Natural lemon-lime flavour
- 100% pure and fully reacted magnesium bisglycinate



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## N-Acetylcysteine

Known as a precursor for the powerful antioxidant glutathione, N-acetylcysteine is known to help relax the airways and reduce wheezing. This is especially true for asthma of any kind and can be taken all year round.



## Humidifiers and Essential Oils

A dry house, workplace, or bedroom can be an immediate trigger for a cough. Depending on the ventilation of the building, heating and air conditioning units can take a significant amount of humidity out of the room. If you don't have a humidifier, try hanging a wet towel around your bedroom. If the towel is perfectly dry when you wake in the morning, you know you need to add more humidity. Boil a pot of water on the stove and leave it on a hot plate holder near your bedside (at a safe distance to avoid spilling or burns). Add 1–2 drops of eucalyptus or lavender into the steaming water for added benefits.

## Conclusion

Chronic coughs can have a significant impact on your activities of daily living. They can interrupt your sleep, your exercise and even your productivity at work. A thorough investigation of the whole body can help identify the source and its triggers.



### Dr. Krysten DeSouza, ND

Krysten is a Mississauga naturopathic doctor, with a special interest in anxiety disorders and mental health. She believes in power of the mind-body connection and that managing mental health should take a whole-body approach.

[desouzanaturopathic.com](http://desouzanaturopathic.com)

Visit our blog for the full article including references:  
[newrootsherbal.com/en/blog](http://newrootsherbal.com/en/blog)

# February is Heart and Stroke Awareness Month

*Show Your Heart Some Love!*

by Gordon Raza, BSc



## Ladies, This One is For You

As women get older, they become increasingly more susceptible to cardiovascular disease.

Why? Estrogen affects female health by keeping harmful cholesterol levels in check. The driving force of menopause is decreased estrogen production... thus decreased protection from bad cholesterol. According to the Heart & Stroke foundation of Canada, heart disease and stroke kill 31,000 Canadian women per year. Unfortunately, cardiovascular disease is typecast as male-related, and women often go untreated or misdiagnosed. This translates to women being less likely to get the cardiac care they require to identify and address their own unique risk factors.

## So What Can Women Do?

Among the many recommendations of Heart & Stroke is to consume at least 2 g of plant sterols per day.

Plant sterols are the botanical equivalent of cholesterol. They're abundant in plant-sourced foods such as cereals, vegetable oils, seeds, and nuts. Their similar structure to cholesterol allows them to compete with harmful LDL cholesterol for absorption sites within the intestines. This inhibits the absorption of this bad cholesterol in the gut, which correlates with lower total cholesterol and LDL-cholesterol in the bloodstream.

It's almost impossible to obtain a therapeutic amount of plant sterols from food alone. The great news is they're available in supplement form and in functional foods such as plant sterol-enriched cooking oils. It's worth having a discussion with your health-care practitioner regarding how plant sterols can play a vital role in your cardiovascular health.



*By the way, this applies to men as well, so please do share this information with the men you care for!*

# Four Tips to Improve Your Immunity

by Jean-Yves Dionne, Pharmacist



Winter is here, windows stay shut, and it becomes hard to protect yourself against those seasonal viruses, or even just to overcome the tiredness that comes from lack of sunlight. How can you improve your immunity without buying a stockpile of products? Here are four simple tips to improve your immunity.

## Reduce Refined Sugars

We know—and this is confirmed by scientific studies—that refined sugars reduce immunity. Diabetics suffer from more infections because their blood sugar level is higher. Therefore, try to reduce the amount of refined sugar you eat. Sugar from fruit is not the same, because it also contains antioxidants and nutrients—but sweets do not!

## Exercise: Move and Oxygenate

You don't need to run a marathon. The more you oxygenate your system, the more your white blood cells (your immune system's helpers) are active and able to get where they are needed. They help neutralize and eliminate the infection before it has a chance to attack. What type of exercise? That's up to you!

## Vitamin D

We know it's good for your bones, but that's not all. Eighty percent of our cells contain vitamin D receptors—bones, brain, immune system, cardiovascular system, etc. If you get enough vitamin D, your white blood cells are not only able to eat up the intruder (virus, bacteria), but also to kill it. For example, back in the day, vitamin D (sunshine) was used to treat tuberculosis. And it worked! The immune system is activated when you have sufficient levels of vitamin D.

## Vitamin C

Oranges contain some, but leafy greens contain even more. Whether it comes from food or supplements, it has several effects. The first part of your body to soak up vitamin C is.... your white blood cells.

Vitamin C supports all your white blood cells, which are then better able to attack the intruder. One detail you ought to know is that vitamin C as a supplement doesn't last very long, it only lasts a few hours. Within 30 minutes, you've already lost around half; 30 minutes later, you've lost half of what's left, and so on. That means that after 2½ to 3 hours, you basically have none left. You therefore need to take a delayed-release supplement or take vitamin C several times a day.

## Final Word

You now have a simple toolbox to improve your immunity and give yourself every chance of avoiding the seasonal flu.



### Jean-Yves Dionne

Jean-Yves Dionne is a pharmacist, trainer, clinical consultant, and scientific advisor in natural health products. He also

teaches at the Université de Montréal and at Université Laval.

[jydionne.com](http://jydionne.com)



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Getting Cs?



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Pro...  
Anti...



# What Are All These “Biotics”?

by Jordan Champagne, BSc

You’ve probably heard the words probiotics, prebiotics, and antibiotics before, but what are they, exactly? All three affect your gut flora, but in different ways. It may help to think of them as seeds, fertilizer, and herbicides, respectively.

## 1. Probiotics Are Like Seeds

They can grow into plants on their own, but they thrive much better if they’re treated properly, with ample amounts of water, fertilizer, and sunshine.

## 2. Prebiotics Are Like Fertilizer

A mound of manure isn’t going anywhere on its own. But added to earth sprinkled with seeds, it helps them to sprout, grow, and blossom. This manure can also help drive off other organisms who might not find it particularly inviting.

## 3. Antibiotics Are Like Herbicides

They’re useful when trying to kill unwanted plants, like weeds. But the plants you care for are likely to take a serious hit as well. The use of herbicides poses another problem. If they’re overused, they can actually help herbicide-resistant weeds proliferate to the point that they become unmanageable. If you repeatedly kill off weeds that can be killed with an herbicide, you may eventually be left with those that can’t. Soon, they’ll take over the entire field, and you’ll have no weapons left with which to fight them.

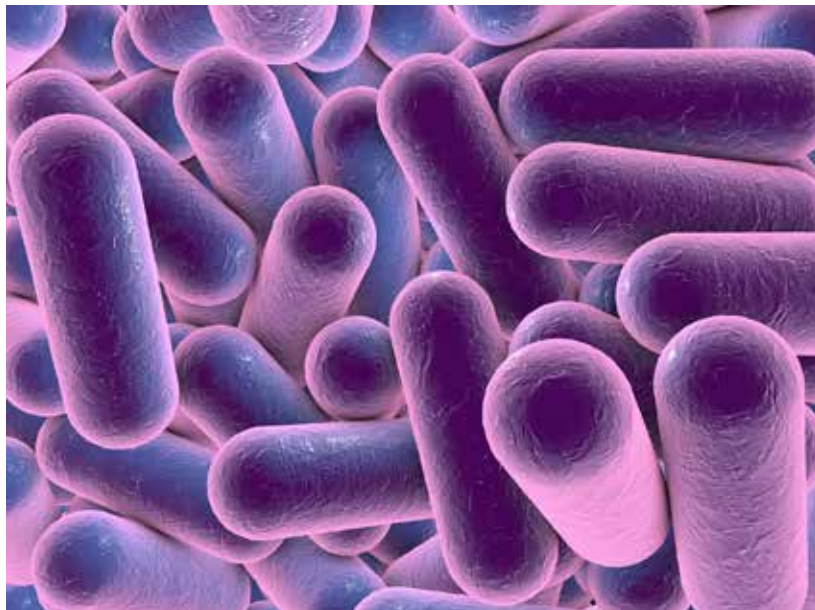


## Probiotics

The synergistic use of probiotics and prebiotics is called microbiome therapy. Probiotic products will provide your gut with all the strains of bacteria it needs to perform a list of biological functions. This list is growing all the time as new findings emerge from ongoing research and includes, but is not limited to, helping with constipation, weight loss, immune function, mood, and HDL cholesterol. The presence of good bacteria will also help prevent the invasion of bad ones (sorry, this seat's taken!). Keep in mind they can't do their job if they don't make it past the harsh acids in your stomach (they need protection!).

## Prebiotics

Prebiotic products—which include high fibre vegetables, fruits, and whole grains—will feed your gut flora with all the nutrients they need to survive and thrive (dietary fibre may not be appetizing to you, but they love it!).



## Antibiotics

Antibiotics can help you if your body becomes a host to bacteria that shouldn't be there. But it is extremely important not to use antibiotics unless you really need them. Taking antibiotics when you have, for example, a viral infection will only kill a large portion of your healthy gut flora. It won't fight what's affecting you; and it may further contribute to the looming problem of drug-resistant bacteria. Avoidance of antibiotics, unless prescribed by a doctor, should tie into an overall holistic approach toward managing your gut flora.

So, make sure you take care of your gut like a farmer takes care of his or her fields. Tend to it every day!

*Visit our blog for the full article including references:  
[newrootsherbal.com/en/blog](http://newrootsherbal.com/en/blog)*



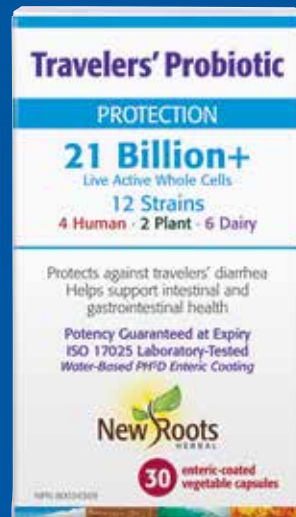
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### How Can You Avoid It?

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# Ginger

## AN UNSUNG HERO

by Dr. Philip Rouchotas, MSc, ND  
and Dr. Heidi Fritz, MA, ND



Ginger (*Zingiber officinalis*) is an herb that often takes a back seat to other anti-inflammatory herbs such as turmeric or boswellia. However, ginger boasts a long history of use and at least as much research on its use as these others. Ginger has traditionally been used for its tonifying effects on the digestive system as well as for conditions related to pain and inflammation. Ginger has been used in China for thousands of years for headaches, nausea, and colds, while in the Mediterranean region, ginger has been used for the treatment of muscular pain and arthritis.



### Activity

Ginger contains phenolic compounds called gingerols, of which 6-gingerol is thought to be the most bioactive. For instance, with respect to nausea, 6-gingerol has been shown to exert antiemetic activity by inhibiting neurokinin-1, serotonin, and dopamine receptors in preclinical models. 6-Gingerol has also demonstrated several important anticancer effects including antiproliferative, antitumor, anti-invasive, and anti-inflammatory activities.

### Evidence

Several meta-analyses have evaluated the use of ginger for conditions including nausea of various kinds, menstrual pain (dysmenorrhea), osteoarthritis, and even type 2 diabetes. Dosing of ginger in these studies ranges from 500 to 2000 mg daily. Randomized controlled trials (RCTs) or meta analyses have demonstrated efficacy for:

- Nausea and vomiting of pregnancy
- Postoperative nausea
- Chemotherapy-induced nausea
- Motion sickness
- Functional dyspepsia—gastric motility
- Osteoarthritis
- Primary dysmenorrhea (menstrual pain)
- Type 2 diabetes—HbA1c
- Possible preventive effects for colorectal cancer

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## Nausea

With respect to nausea, meta-analytic reviews have demonstrated the effectiveness of ginger supplementation for nausea and vomiting of pregnancy (NVP) and postoperative nausea. A network meta-analysis of 50 RCTs comparing various interventions for NVP found that “Acupuncture, chamomile, dimenhydrinate [Gravol®], doxylamine/vitamin B<sub>6</sub> [Diclectin®], ginger, quince, metoclopramide, and vitamin B<sub>6</sub> were associated with reduced nausea scores compared to placebo. Of these interventions, ginger and vitamin B<sub>6</sub> were also associated with better vomiting control and less incidence of adverse events. Adequate evidence supporting the use exists only for ginger and the quality of evidence for this comparison is moderate.” The Motherisk program at the Hospital for Sick Children considers ginger as safe for use in nausea of pregnancy.



A 2018 meta-analytic review of 10 RCTs for postoperative nausea and vomiting (PONV) found that ginger had a significant effect on the severity of PONV based on visual analogue scale (VAS) results. A 2006 meta-analysis of 5 RCTs concluded that there was an approximately 30–40% reduced risk of nausea and vomiting associated with ginger and that 1 g ginger seemed an effective dose.

There is a lack of meta-analyses evaluating ginger for chemotherapy-induced nausea, although several clinical trials suggest it may be effective as an adjunct to standard antiemetic therapy given with chemotherapy. Other RCTs fail to show this effect. These RCTs do, however, suggest that ginger has a good safety profile, as there was no increase in adverse events reported related to ginger.

A randomized crossover trial of 13 patients with a history of motion sickness found that ginger pretreatment reduced symptoms induced by a motion test. Specifically, pretreatment with ginger (1,000 and 2,000 mg) reduced the nausea, tachygastria (increased rate of electrical activity in the stomach associated with nausea), and plasma vasopressin, compared to placebo, following a vection test. Ginger also prolonged the latency before nausea onset and shortened the recovery time after vection cessation.

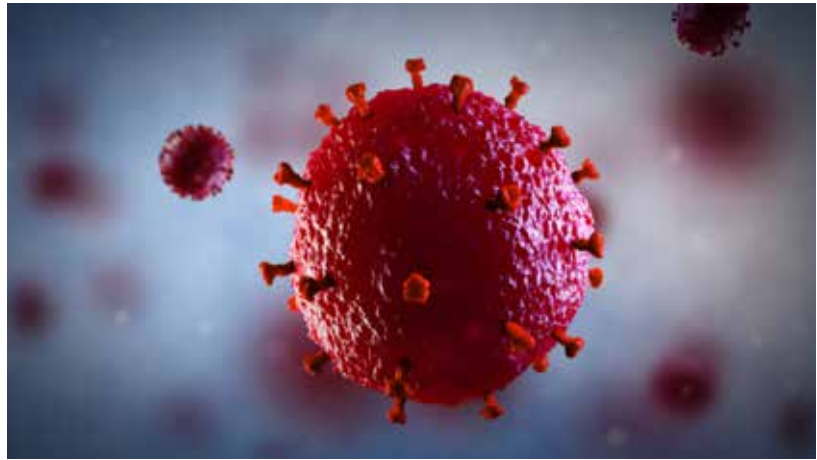
A randomized controlled trial of 11 patients with functional dyspepsia evaluated the effect of a single dose of ginger (1.2 g) or placebo following an 8-hour fast and then a meal of soup. Results showed that while the single dose did not exert any impact on symptoms of dyspepsia (discomfort, gas, bloating, etc), even a single dose of ginger was able to increase gastric emptying compared to placebo such that the median half-emptying time was 12.3 minutes after ginger, versus 16.1 minutes after placebo.

## Pain

With respect to pain-related conditions such as dysmenorrhea or osteoarthritis, ginger has been shown to reduce inflammatory cytokines and reduce pain as effectively as the NSAID ibuprofen in randomized trials. A 2015 meta-analysis of seven RCTs evaluating menstrual pain (dysmenorrhea) showed that 750–2000 mg ginger during the first three to four days of the menstrual cycle was effective for primary dysmenorrhea, while another meta analysis of five RCTs and 593 patients found that ginger reduced pain and disability due to osteoarthritis, in a modest and safe manner.

## Diabetes

A meta-analysis of eight RCTs including 454 patients with type 2 diabetes found that, while ginger had no effect on fasting blood glucose, ginger use (1600–4000 mg daily) was associated with a significant reduction in HbA1c.



## Cancer

Finally, preliminary data seem to suggest that ginger may exert anti-inflammatory and potentially anticancer effects in the lining of the digestive tract, with possible impact on risk of colorectal cancer.

Ginger and specifically 6-gingerol impact several cell signaling pathways, including Bax/Bcl2, p38/MAPK, Nrf2, p65/NF- $\kappa$ B, TNF- $\alpha$ , ERK1/2, SAPK/JNK, ROS/NF- $\kappa$ B/COX-2, caspases-3 and -9, and p53. “This suggests that ginger derivatives, in the form of an extract or isolated compounds, exhibit relevant antiproliferative, antitumor, invasive, and anti-inflammatory activities.”

Several clinical studies have evaluated the effect of ginger in preventing the development of colorectal cancer in patients at increased risk. Of these, some indicate potential cancer, preventive effects through cyclooxygenase-2 (COX-2) inhibition and reduction of prostaglandin PGE<sub>2</sub>, a proinflammatory cytokine associated with initiation of colorectal cancer in the colonic mucosa, while others do not.

An RCT in patients at increased risk of colorectal cancer found that supplementation with ginger (2 g daily) or placebo for 28 days altered the expression of cell-cycle biomarkers in colorectal crypts of rectal mucosa biopsies. The study concluded that “ginger may reduce proliferation in the normal-appearing colorectal epithelium and increase apoptosis and differentiation relative to proliferation—especially in the differentiation zone of the crypts.” More research, especially longer studies, is necessary in this area.

## Conclusion

Ginger has been the subject of a wealth of research in the areas of nausea, especially nausea of pregnancy, motion sickness, and even functional dyspepsia; pain conditions such as menstrual pain and osteoarthritis; type 2 diabetes; and even possibly cancer prevention. Individuals should consult with a health-care provider to determine whether ginger may be appropriate for them.

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# Nutritive Sweeteners:

## Xylitol and Erythritol

by Dr. Philip Rouchotas, MSc, ND  
and Dr. Heidi Fritz, MA, ND



Diabetes has been called the “epidemic of the 21st century.” The consequences of diabetes are often underappreciated by the public, but the medical community is all-too-well aware of sequelae including blindness, kidney failure, neuropathy, amputations, and heart disease. Obesity is the leading cause of diabetes, and so diet and lifestyle strategies that support weight loss and exercise are essential in stemming the rise of this disease.

Nonnutritive sweeteners (NNS) or low-calorie sweeteners (LCS)—meaning sugar-free sweeteners such as aspartame or sucralose—have for decades been promoted as a way to reduce sugar intake and encourage weight loss. New evidence suggests use of these artificial sweeteners may instead be associated with more obesity, worse glycemic control, and higher rates of developing diabetes. A recent meta-analysis of ten prospective studies found that consumption of one serving per day of LCS beverages was associated with a 25% increased risk of type 2 diabetes. Naturally occurring sweeteners such as xylitol and erythritol have been investigated as possible alternatives.

Xylitol and erythritol are naturally-occurring low-calorie sweeteners. The former has been studied since the 1960s, while the latter has been studied since the 1990s, with first attention devoted to their effects on dental health and tooth caries; more recently, the focus has shifted to their systemic effects in diabetes and metabolic syndrome as well as effects on the gut flora. Xylitol in chewing gum and candies has been shown to help prevent tooth decay and may have anti-infective properties, while xylitol and erythritol systemically have been shown to improve glucose control. This article reviews data on diabetes, dental health, and other applications.

### Pharmacology

Structurally, xylitol and erythritol are sugar alcohols; xylitol has a 5-carbon structure, while erythritol has a 4-carbon structure. The substitution of a carbonyl group with an alcohol group on these molecules renders xylitol less absorbable and results in a slower release of sugar into the bloodstream. One study also showed slowed gastric emptying associated with xylitol, which can increase satiety. Absorbed xylitol is converted to glucose, which is slowly released to the bloodstream, resulting in low-glycemic as well as low-insulinemic effects. For this reason, xylitol is ideal for maintaining stable glucose levels in diabetic individuals. Xylitol is generally recognized as safe (GRAS), and doses up to 50 g in adults and 20 g in children are considered safe.

Unabsorbed xylitol is fermentable by gut bacteria, producing hydrogen gas and flatulence; and the increased osmotic pressure may cause looser stools in some individuals in a dose-dependent fashion. Xylitol consumption has also been shown to increase the numbers of *Bifidobacteria* in the large intestine among healthy patients. Another study in animal models found that moderate doses of xylitol (200 mg/kg per day) were associated with observable changes in gut flora composition, with reduced abundance of fecal *Bacteroidetes* phylum and the genus *Barnesiella*, and increased abundance of *Firmicutes* phylum and the genus *Prevotella*. The generalizability of these findings to humans are not certain.



Unlike xylitol, erythritol is highly absorbable in the small intestine and nonfermentable. Erythritol is quickly absorbed but not metabolized systemically, and is excreted unchanged in the urine. Erythritol therefore has better gastrointestinal tolerance, yet shares the same low-glycemic features as xylitol. One study found that, compared to xylitol, erythritol consumption was associated with significantly lower gastrointestinal symptoms including nausea, bloating, borborygmi, colic, watery faeces, and total bowel movement frequency. There is some data that erythritol may improve endothelial function in patients with diabetes.

## Metabolic Effects: Diabetes

One study evaluated the effect of xylitol and erythritol on gastric emptying and glucose responses, comparing lean and obese patients. Ten lean and ten obese volunteers were given 75 g of glucose, 50 g of xylitol, or 75 g of erythritol in 300 ml of water, or placebo (water) by a nasogastric tube. Administration of xylitol and erythritol led to a marked increase in glucagon-like peptide-1 (GLP-1) and cholecystokinin (CCK), markers of satiety, whereas insulin and plasma glucose were not (erythritol) or only slightly (xylitol) increased. Both xylitol and erythritol induced a significant slowing in gastric emptying, although subjective feelings of appetite were not significantly different compared with placebo.

A randomized, three-way study evaluated hunger and satiety scores associated with erythritol use. A total of ten lean and ten obese volunteers consumed three test meals on separate occasions:

1. Control sucrose meal;
2. Isovolumic meal with partial replacement of sucrose by erythritol; and
3. Isovolumic meal which contained more erythritol but equivalent calories to the control meal.

Erythritol was associated with smaller increases in blood glucose and insulin. There was no difference in glucagon-like peptide 1 (GLP-1) and peptide YY (PYY) levels, or subsequent energy intake between sucrose control and isovolumic erythritol meals. In lean (but not obese) participants, hunger decreased to a greater extent after the isocaloric erythritol meal compared to the control meal. Researchers concluded that replacing sucrose with erythritol leads to blunted glucose and insulin responses; and to comparable hunger and satiety scores, GLP-1 and PYY levels, and subsequent sucrose preference and intake.

A pilot study found that among 24 patients with type 2 diabetes, supplementation with erythritol (36 g daily for four weeks) was associated with improved measures of endothelial function. In this study, acute erythritol “improved endothelial function measured by fingertip peripheral arterial tonometry [and] chronic erythritol decreased central pulse pressure ( $47 \pm 13$  to  $41 \pm 9$  mmHg) and tended to decrease carotid-femoral pulse wave velocity.” This indicated that erythritol consumption acutely improved small-vessel endothelial function, while chronic treatment reduced central aortic stiffness.





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A study in animal models with induced diabetes found that erythritol exerted antihyperglycemic effects by reducing small-intestinal glucose absorption as well as increasing muscle glucose uptake, improving glucose metabolic enzymes activity, and modulating muscle Glut-4 and IRS-1 mRNA and protein expression.

## Dental Health

Dental caries are caused by proliferation of *Streptococcus mutans*, a bacteria that produces acids and breaks down the enamel and dentin of the teeth. Xylitol decreases the proliferation of these bacteria in plaques and in saliva by:

1. Decreasing dietary sugar intake; and
2. Inhibiting the enzyme glucosyltransferase, which in turn blocks glucose utilization by *Streptococcus mutans* and their adhesion to the tooth surface.

A systematic review and meta-analysis including 16 studies found that xylitol reduced growth of *S. mutans* in the oral cavity, and that xylitol reduced tooth decay compared to fluoride varnish. Researchers concluded that “xylitol was found to be an effective strategy as self-applied caries preventive agent.” Additional studies showed that use of xylitol was associated with significantly less bacterial biofilm and bacterial adherence compared to sucrose (sugar); and decreased reduction in plaque, gingival, and bleeding score.

Another study found similar findings of decreased biofilm growth associated with erythritol use.



## Otitis Media

In addition to being a nutritive sweetener, xylitol has long been recognized for its antibacterial effects. There is currently a randomized trial underway to evaluate the effect of a xylitol syrup on ear infection (otitis media) among children ages 2–4 years.

A randomized trial published in *Pediatrics* as early as 1998 found that xylitol syrup was effective in preventing otitis media and reducing the need for antibiotics. A total of 857 children from various daycares were randomized to receive xylitol either as a chewing gum or syrup or lozenge, at a dose of between 8.4–10 g per day, compared to placebo for three months. Results showed that the percentage of children who experience otitis media during the course of the study was significantly reduced among xylitol treated groups: A 20% reduction in the lozenge group, a 30% decrease in the syrup group, and a 40% decrease in the chewing gum group. The xylitol treated groups also required fewer antibiotic treatments.

## Conclusion

In summary, xylitol and erythritol are alcohol-sugars that may be safer alternatives to sugar and artificial sweeteners. Xylitol is released slowly into the bloodstream, while erythritol is well absorbed and generally has better gastrointestinal tolerance. Replacement of sucrose with xylitol and erythritol results in blunted effects on blood glucose and insulin. Xylitol may also be helpful for preventing dental cavities and middle-ear infection.

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## Antiaging Antioxidant Oils

# Do They Really Work?

by Andrea Donsky, RHN



When you hear the word “aging,” how does it make you feel? Does it make you smile, or does it do the opposite? I’ve been thinking a lot about this word as we enter into a new decade.

I recently did an antiaging segment on Cityline, where I talked about ways we can stop—and in some cases reverse—physical signs of aging, without going under the knife.



While doing my research, I discovered the incredible benefits of antioxidant oils. Let’s explore several of them and find out what the experts, the science, and advocates have to say.

### Argan Oil

Argan oil is rich in vitamin E, an antioxidant that is great for healthy looking hair and skin.

Argan oil also contains melatonin, plant sterols, and coenzyme Q<sub>10</sub>, all of which can enhance its antioxidant properties. Some research indicates that consuming argan oil may slow aging by reducing inflammation. However, applying the oil to your skin may reduce the appearance of fine lines and wrinkles and also increase elasticity.

### Baobab Oil

The fruit of the baobab tree, one of the oldest succulents in the world, is the source of this treasured oil. Baobab oil is known for its ability to soften and regenerate the skin and improve the appearance of fine lines, age spots, and wrinkles.

These benefits are attributed to the presence of large amounts of vitamins A, B, and C; as well as omega-3, -6, and -9 fatty acids. The oil is readily absorbed and is an excellent moisturizer.

### Cacay Seed Oil

Cacay seed oil is extracted from the nut of the cacay tree, which grows in the Amazon forest. It contains a blend of fatty acids, the majority of which is linoleic acid, an essential fatty acid that is a great source of omega-6. Once you ingest omega-6, the body uses it to produce ceramide I, which is an essential part of a healthy skin barrier.

Cacay seed oil contains about 50% more of the antioxidant vitamin E than other plant-based oils, which makes it a great moisturizer. Vitamin E also stimulates renewal of skin cells, which in turn helps fight the signs of aging. The oil is also very high in retinol, which helps reduce lines and wrinkles.



## Cranberry Seed Oil

Cranberry seed oil has one of the highest levels of antioxidants and phytosterols compared to other fruit or vegetable oils. That includes vitamin E as well as omega-3 and omega-6 essential fatty acids. These qualities make it a great choice for natural sun protection, which in turn helps reduce signs of aging and unhealthy skin.

Cranberry seed oil is cold-pressed from the seed of the berry. The oil is an effective moisturizer and can be found in skin products, where it can enhance the antioxidant activity of other oils.

## Goji Seed Oil

Goji berries are among the most nutritionally rich foods in the world and are often referred to as a superfood. This is attributed to their high levels of antioxidants, essential fatty acids (they contain more than 19 amino acids), vitamins, and trace minerals. All of these ingredients work at one level of another to reduce the signs of aging.

For example, the antioxidants enhance the immune system and fight free-radical damage to the skin and organs. In particular, the antioxidants protect against damage from ultraviolet rays while the *beta*-carotene promotes healthy skin.

## Marula Oil

Southern Africa is home to the marula fruit tree (*Sclerocarya birrea*), which is wild there but also cultivated. The oil has a fruity aroma and is mainly extracted from kernels at the core of the brown nut produced by the tree.

A wide variety of beauty products contain marula oil, which has a high moisture content and light texture. Its beneficial ingredients include:

- The amino acids glutamic acid and L-arginine, which have antiaging properties.
- Fatty acids, which provide moisturizing and softening benefits.
- Antioxidants, including vitamins C and E, which destroy tissue-damaging free radicals and may protect against ultraviolet rays.

Research indicates marula oil is effective as a moisturizer for dry or aging skin. It may also help soften fine lines and keep your skin hydrated. The oil has antimicrobial properties and may be effective against the formation of pimples and blackheads.

## Moringa Oil

The foothills of the Himalayas are the native home of the moringa tree, although it now grows in more than 80 countries. Since ancient times, moringa oil, which is extracted from the seeds, has been used for creams, ointments, and lotions.

Sometime, moringa oil is referred to as “Ben oil” because it is rich in behenic acid, a natural emollient, lubricant, and soothing agent for the skin. It also is a rich source of antioxidants and omega-9 fatty acids, which can help reduce the appearance of wrinkles and fine lines as well as provide an even skin tone. Moringa oil goes on smoothly, is not sticky, and doesn’t make your skin look oily.



## Pomegranate Oil

Those little pomegranate seeds enveloped in a gel-like coat are rich in various fatty acids, vitamins, minerals, polysaccharides, and polyphenols. Of particular interest are punicalic acid and punicalagins (PNG), which have anti-inflammatory, antioxidant, and other qualities. Pomegranate oil has nourishing and moisturizing properties that are especially beneficial for aging, irritated, or sunburned skin.

## Rosa Mosqueta Oil

Rosa mosqueta is one of the two most common types of rosehip oils used in skin care. One type is derived from the rose species called *Rosa canina*, and the other is from *Rosa rubiginosa*, which is where rosa mosqueta



comes from. These two oils have differing nutrients and essential fatty acids, and the latter species has the higher fatty acid content.

Both oils have antioxidants (e.g. vitamins A and C, *beta*-carotene) as well as omega-3, -6, and -9 fatty acids. *Rosa rubiginosa* is perhaps better known for its *trans*-retinoic acid content (a natural derivative of vitamin A), which has restorative powers and can help reduce fine lines and wrinkles.

## Sea Buckthorn Seed Oil

Don't let the word "sea" fool you. The sea buckthorn plant (*Hippophae rhamnoides*) is a shrub that grows in the Himalayan region. The oil is extracted from the berries, seeds, and leaves and has been a popular remedy in Ayurvedic and traditional Chinese medicine for millennia.

The antioxidants in sea buckthorn oil can help fight aging and diseases such as heart disease and cancer. The oil is a rich source of quercetin, a flavonoid associated with a lower risk of heart problems.



A unique feature of sea-buckthorn oil is that it contains all four omega fatty acids: omega-3, omega-6, omega-7, and omega-9. Studies suggest the oil can reduce inflammation associated with exposure to ultraviolet light and also can improve skin elasticity when applied to the skin.

## Tamanu Oil

Tamanu oil is extracted from seeds of a tamanu nut tree. People in certain Asian, African, and Pacific Island cultures, however, have been using the oil for centuries for various skin conditions.

In the antiaging realm, this oil has been shown to promote the production of collagen and glycosaminoglycan, which play an important role in skin regeneration and fighting aging skin. Other research indicates tamanu oil can help prevent wrinkles caused by sun exposure.

## Bottom Line

A wide variety of antiaging antioxidant oils are available to help you ward off the effects of aging.

When trying new plant oils, test a small amount on your inner arm to see if you have any reaction before using the oil more liberally. It is possible to have a reaction to some seed or nut oils if you tend to be intolerant of these types of foods.



See the video of the Cityline segment here:

[newrootsherbal.com/exoticoilsvideo](http://newrootsherbal.com/exoticoilsvideo)



### Andrea Donsky, RHN

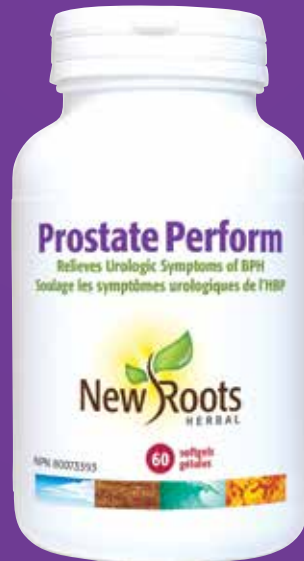
Andrea is a registered holistic nutritionist with 20 years experience in natural health and wellness. She is the cofounder and editor-in-chief of NaturallySavvy.com.

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# Eye Health, Macular Degeneration, and Cataracts

by Dr. Heidi Fritz, MA, ND

Our eyes and our sense of vision are extremely important to quality of life. As we age, our eyes tend to deteriorate, not only with regards to acuity, but also with regards to overall health. Two quite common conditions cause problems with vision. These conditions are presented below.

## What Is AMD?

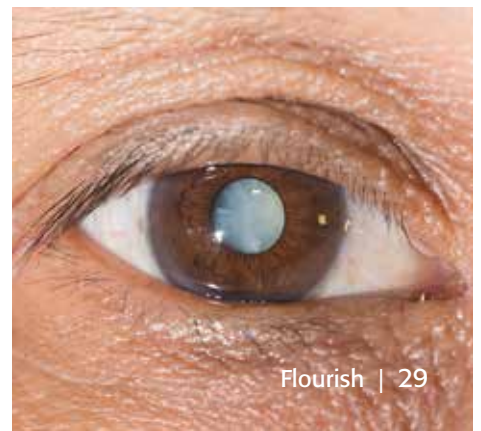
Age-related macular degeneration (AMD) is a common eye condition and can cause vision loss in the elderly. It causes damage to the macula, a small spot near the center of the retina (example pictured above). The macula is the most sensitive part of the retina and it is involved in the management of sharp central vision. AMD affects more than 10 million people in the United States, which is more than cataracts and glaucoma combined. It is currently considered to be incurable.

AMD sometimes progresses slowly, and so vision loss may not occur for an extended period of time. Other times, it progresses more quickly. A blurred area near the center of vision is a common symptom, so depending on progression, it can become extremely difficult to see properly. Things may not look as bright as they used to be. The loss of central vision can interfere with everyday activities, so it's important to address it as soon as possible.

When the macula is working well, it collects detailed images and sends them up the optic nerve to the brain to create the perception of sight. In the early stages, macular degeneration actually doesn't affect vision. Only later on if it progresses does it cause wavy or blurry vision. There are a couple of different types of AMD, called wet and dry. The majority of cases are dry, which means they don't cause exudate.

## What Are Cataracts?

A cataract is a clouding of the lens in the eye. The lens is a clear part of the eye that helps to focus light on the retina. The retina is the tissue at the back of the eye. Normally, light passes through the transparent lens to the retina, where light is changed into nerve signals that are sent to the brain. The lens must be clear for the retina to receive a clean and sharp image. If the lens is cloudy from a cataract, the image you see could be blurry.



Cataract symptoms can also include difficulty with night vision, sensitivity to light, the fading of colours, and even double vision in one eye. Most cataracts are related to aging. Aside from aging, cataracts can also develop after surgery from other eye problems like glaucoma.

They are sometimes linked to steroid use. They can develop after injuries and potentially after some types of radiation. This article will review the causes and risk factors of these conditions, the conventional treatments, and the naturopathic alternatives.

## Causes and Risk Factors

### - AMD -

The risk of AMD increases with age. It's most likely to occur in those over the age of 55. Additional risk factors are genetics; those with a family history of AMD or poor eye health are at higher risk. Smoking is also an extremely important risk factor and by itself doubles the risk of AMD.

### - Cataracts -

Some cataracts are related to genetic disorders. They can also be linked to other conditions such as diabetes. As we age, the lense in our eyes become less flexible, more transparent, and thicker. The tissues in the lens break down and clump together, causing clouding, and the clouding worsens over time. Excessive alcohol consumption increases the risk of having cataracts. Excessive exposure to sunlight also increases the risk of cataracts. Many metabolic conditions cause an increased risk, such as high blood pressure and obesity. Like with AMD, smoking is a risk factor.



## Conventional Management

### - AMD -

There is no treatment available for early AMD. However, it can be possibly prevented by exercising, avoiding smoking, and eating a healthy diet (that includes green leafy vegetables and fish). In the intermediate and later stages of AMD, studies have shown that the daily intake of high-dose vitamins and minerals can slow progression of the disease.

Two large trials, called AREDS and AREDS2, investigated the impact of the nutritional supplements. The first one found that vitamin C, vitamin E, *beta*-carotene, zinc, and copper can reduce the risk of late AMD by 25%. The second one found that adding additional items did not help, but that replacing *beta*-carotene with a mixture of lutein and zeaxanthin (which we'll discuss below) may further reduce the risk. Adding nutritional supplements do not cure AMD but may delay the onset of late AMD.

Other conventional treatments include injections, photodynamic therapy, and laser surgery. Injections consist of anti-VEGF. VEGF is a protein that promotes the growth of new abnormal blood vessels. Usually, multiple monthly injections are required. There are also anti-VEGF drugs. Photodynamic therapy uses a laser to activate a drug that helps with AMD. Laser surgery attempts to destroy abnormal blood vessels.

### - Cataracts -

Cataracts can be delayed by wearing sunglasses and a hat to block ultraviolet sunlight. Smoking cessation can help. Similar to AMD, a healthy diet with vegetables, fruit, and other antioxidant-containing foods can help protect vision. Cataracts can be treated with some external factors, such as new eyeglasses and using brighter lights. A cataract eventually needs to be removed when vision loss interferes with activities of living. Cataract surgery is the gold standard for cataract removal.



## Naturopathic Alternatives

Healthy diet and lifestyle suggestions can be reinforced by your naturopathic doctor. These include the reduction or elimination of smoking and alcohol consumption, as well as incorporating a diet with many antioxidants. From a supplement perspective, many herbs and vitamins that could be useful, in addition to those mentioned previously in the AREDS studies.

### - Lutein and Zeaxanthin -

Lutein and zeaxanthin are the only carotenoids found in the macula. Numerous studies have shown that they can provide significant protection against the potential damage caused by light striking the macula. They act as antioxidants to protect against the formation of reactive oxygen species and free radicals.

### - Bilberry and Blueberry -

Bilberry is a herb that is indicated in visual disturbances or poor vision, cataracts, and macular degeneration as well as other eye conditions. Bilberries have been used as food and for their high nutritive value, as they contain multiple vitamins. Bilberry also contains anthocyanins, which are antioxidants and can protect the eye. Blueberry is also rich in anthocyanins and exerts antioxidant effects, improves vascular function, protects cells against oxidative stress, and promotes healthy vessel function. Studies have shown that, among other helpful properties, blueberries can prevent DNA damage.

## Conclusion

AMD and cataracts are two important causes of vision loss. Risk factors include genetics, diet, and lifestyle. Although genetics are not modifiable, diet and lifestyle can be optimized by quitting smoking and decreasing alcohol intake. There are multiple conventional treatments, including surgery, drugs, and laser treatments. There are also numerous naturopathic treatments, including vitamins and antioxidants, all of which are supported by large studies.

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## Apples, Pears, Apples, Pears... Is This on Repeat?

It's not easy to get a variety of fresh fruits during the long winter months in Canada. Cravings for Mexican mangos, Indian bananas, or African pomegranates can put a serious dent in our wallets, not to mention the guilt of knowing the transport required to deliver them. One solution to reduce both the carbon footprint and the expense of fruit consumption is to choose frozen fruit. Some frozen fruits can contain more vitamins and antioxidants than their fresh counterparts that have been kept in the refrigerator for three days!<sup>[1][2]</sup> Another option can be a concentrated mixture of freeze-dried fruit powder. When made with nourishing berries, one serving can provide the antioxidant and vitamin power of a whole bag of mixed fruit. Just be sure to select one made without heaps of added sugar!

To a berry delicious winter!

1. Burch, R. "Nutritional Content of Fresh vs Frozen Foods." *Leatherhead Food Research* (2013).
2. Bonwick, G., and C.S. Birch. "Antioxidants in Fresh and Frozen Fruit and Vegetables: Impact Study of Varying Storage Conditions." *Client Technical Report, University of Chester* (2014). [Epub]

# Common Side Effects of the Keto Diet:

## Why They Happen and How To Avoid Them

by Guillaume Landry, Naturopath

In our previous issue, we shared a keto success story and highlighted supplements available to help you succeed with it. This triggered significant interest and many questions, so here is some additional information on this popular topic.

### Side Effect **Dehydration**

**Cause**  
The decrease in insulin caused by a lower intake of sugar stimulates the urinary excretion of electrolytes, which also causes a risk of electrolyte deficiency (particularly sodium).

**Suggestion**  
Take an electrolyte supplement, and don't exclude salt from your cooking!

### Side Effect **Kidney stones**

**Cause**  
The excess of ketones from fat metabolism tends to acidify the body; what's more, a high intake of protein can create an excess of uric acid.

**Suggestion**  
Take a "green superfood" supplement, drink plenty of water, and avoid foods that are high in purines (go for plant proteins instead).

### Side Effect **Constipation**

**Cause**  
The absence of foods that are naturally rich in fibre (fruits, grains, legumes) reduces intestinal motility and lowers the intestinal microbiota's production of beneficial short-chain fatty acids (SCFAs).

**Suggestion**  
Take fibre supplements and increase your intake of leafy green vegetables.

### Side Effect **Gas / Bloating / Diarrhea / Reflux**

**Cause**  
The transit of nondigested fat into the colon feeds putrefying bacteria and creates looser stools. Gastric emptying takes longer because meals are harder to digest, creating a lack of enzymes.

**Suggestion**  
Take an enzyme supplement and include fermented foods that are naturally rich in probiotics and enzymes.





#### Side Effect

### Nausea / Apathy / Migraines

#### Cause

Hypoglycemia and toxemia. The transition from glucose to ketones for energy production needs a period of adaptation that, for some people, can result in “keto flu,” which goes away if the keto diet is followed correctly. When you lose body fat, this releases toxins into your body, so your detoxification and elimination organs have to work harder than usual.

#### Suggestion

Take an antioxidant and energizing supplement, as well as detoxification support with nutraceuticals like DHA, ALA, and liver-supportive plants.

## How Can I Make Sure That Taking Supplements Won't Impact the Amount of Carbohydrates Allowed (20 g per Day)?

Ensure that the supplement brands you use are able to inform you of the net content of carbohydrates (carbohydrate minus fibre) in their products. For example, in order to cover your possible deficiency in antioxidants, choose a naturally sweetened berry extract drink that won't have a negative impact on your blood sugar levels and your diet (rather than a sugary drink that vaguely resembles berries).

## What Other Tools Can I Use to Optimize My Keto Diet?

Daily fasting is a natural strategy that supports the body's natural elimination processes: every day, give yourself an eight-hour feeding window, leaving 16 hours for the body to process the rich nutrients in keto foods and get on with detoxification as well as maintaining tissues. Another element that promotes weight loss is a hypocaloric diet. These approaches should be carried out with the support of a health-care practitioner, and only be considered as a midterm solution.

## What Are the Contraindications for a Keto Diet?

Liver conditions, removal of gall bladder, intolerance to fats, kidney problems.

## I Don't Like Stevia's Aftertaste. Are There Other Sweeteners That Are Compatible with a Keto Diet?

Every problem has its solution. Give erythritol a try. It's a natural alternative to sugar, plant-derived, and contains 95% fewer calories (0.8 calories per 4 g portion). Erythritol has a crystalline texture similar to sugar and doesn't have an aftertaste. Since its impact on blood sugar is negligible, erythritol is ideal as a sugar substitute for people looking to limit their intake in cooking, baking, or hot and cold drinks. With a flavour profile equivalent to around 70% that of sugar, it's perfectly appropriate for a ketogenic lifestyle or to reduce your calorie intake, while still enjoying treats!

Visit our blog for the full article including references:  
[newrootsherbal.com/en/blog](http://newrootsherbal.com/en/blog)



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To ensure these products are right for your health condition, always read and follow label directions.

# Pumpkin Banana Smoothie

## Ingredients

- 1 cup of unsweetened almond or coconut milk
- ½ banana (can be frozen)
- 3 tbsp. New Roots Herbal's Pumpkin Seed Protein
- 1 tbsp. raw cocoa powder
- 1 tbsp. of natural nut butter (I like either almond or peanut butter)
- ¼ tsp. cinnamon
- New Roots Herbal's Sweet 'n Clean Xylitol, to taste (optional)

## Instructions

Blend everything and enjoy!



### Mary Zakko

A member of the New Roots Herbal team, Mary is a busy working mom always looking for quick ways to make meals more nutritious.



# Chaga Maca Tea

## Ingredients

- ¾ cup chaga tea
- ½ cup chocolate-flavoured almond milk
- 1 tsp. New Roots Herbal's Fermented Maca
- ½ tsp. dark chocolate shavings (optional)

## Instructions

Slowly simmer two or three chunks of chaga tea in 2 litres of water for 3–4 hours until rich in colour. Store tea in fridge for up to one week. Chaga chunks may be frozen and reused.

Heat chaga, then add Fermented Maca and steamed chocolate-flavoured almond milk. Mix well. Sweeten to taste, and garnish with shavings of dark chocolate.



### Sharon Solis

Sharon is a nutritional advisor and health-product consultant in the Waterloo region.

Instagram: @matchalava2018





# Acorn Squash Stew

I love easy and fairly quick meals for weekdays, especially when I have enough leftover for my lunch the next day! This squash will take you approximately 10 minutes to prepare and 30 minutes to cook (20 of those cooking minutes are completely effortless). It really is the perfect healthy stew, especially with the colder months just around the corner!

I added some whole-food powder for an extrahealthy meal: fermented red beet and fermented ginger. You can also make this in a Crock-Pot (slow cooker).

## Ingredients

- 1 can ground tomatoes
- 1 can cannellini beans, drained and rinsed
- 1 medium onion, diced
- 1-2 garlic cloves, minced
- 1 small acorn squash (approximately 3 cups), diced (you don't need to peel it, but do if you wish)
- 2 cups vegetable broth
- 1 cup quinoa, uncooked (I use the tricolor one)
- 3 tbsp. olive oil
- 1 tbsp. maple syrup
- 1 tbsp. New Roots Herbal's Fermented Ginger
- 1 tbsp. New Roots Herbal's Fermented Red Beet
- 1 tsp. cumin
- 1 tsp. smoked paprika
- 1 tsp. salt
- Handful of kale, slivered
- Fresh parsley, to taste

## Instructions

Cook onions in a saucepan at medium heat with 3 tbsp. olive oil for 2 minutes. Add in garlic and cook a further 1 minute. Add in squash and cook 3 minutes. Add in quinoa, stir well, and cook a further 3 minutes. Add paprika, cumin, salt, and maple syrup, and give it a good stir before adding the ground tomatoes and vegetable broth, then give it another good stir.

Cover and simmer for 20 minutes (until the squash is tender). Fold in kale, cannellini beans, parsley, Fermented Ginger, and Fermented Red Beet. Stir well before serving. Enjoy!

Gives 6 portions.



**Kate D. Bunting**

British-Canadian healthy-living and food blogger at "Kate & Zest," vegan, world traveller... and pretty fancy.  
kateandzest.com



# Turmeric Orange Chaga Chia Pudding

Nut-, Grain-, Gluten-, Dairy-, Egg-, and Gum-Free; Vegan- and Paleo-Friendly

What a superstar lineup: Incredible chaga mushroom; coconut milk's medium-chain and chia's omega-3 fatty acids; anti-inflammatory turmeric, ginger, and cinnamon; and prebiotic inulin fibre. We've got you covered on multiple fronts! With its deliciously and delicate flavour, creamy texture, warming spices, and uplifting hint of orange, this is a guilt-free dessert you will look forward to. Enjoy!

## Ingredients for Three Cups

- 2 cups water
- 1 chunk New Roots Herbal's Chaga Tea (about 2 cm diameter)
- 1 organic chai tea bag (my favourite is rooibos chai)
- 1 tsp. New Roots Herbal's organic Fermented Turmeric powder
- ½ tsp. organic powdered ginger
- ½ tsp. organic ground cinnamon
- ⅛ tsp. ground black pepper (seriously, don't skip this!)
- One 400 ml can of full-fat organic coconut milk (or favourite creamy nondairy milk)
- 2 tbsp. maple syrup or 1 tsp. New Roots Herbal's Stevia Sugar (or to taste)
- 1 tsp. vanilla extract or powder
- ½ cup organic chia seeds
- Zest from one organic orange (about 1–1½ tsp., packed)
- Pinch of salt
- Optional garnish: cinnamon, cloves, orange wedges, or coconut whipped cream

## Instructions

Into a heavy saucepan, bring to a boil the water, chaga chunk, tea bag, turmeric, ginger, cinnamon, and black pepper. Allow to boil for 10 minutes, then reduce the heat to low. Add the coconut milk, vanilla, and maple syrup or sweetener, and continue to simmer for 5 minutes, stirring frequently. Remove from heat and stir in the orange zest and chia seeds. Add a pinch of salt, to taste.

Remove the chaga chunk (which you can wash, freeze, and reuse!) and tea bag, then pour into bowls or beautiful glasses. Refrigerate 6–8 hours or overnight before enjoying. Serve garnished with coconut whipped cream, spices, and/or fruit for breakfast or dessert; or pack as an easy grab-and-go addition to your lunch box.



### Theresa Nicassio, PhD, Psychologist

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

[TheresaNicassio.com](http://TheresaNicassio.com)

# AskGord



*Many supplements have duration-of-use recommendations ranging from several weeks to a few months for products that seem to be intended for long-term use. Can you explain the rationale for these warnings?*

Great question! Raw materials and standardized extracts have a product monograph archived in the Natural Health Product Ingredient Database. For novel ingredients where there are no monographs, manufacturers must provide research studies for evaluation by Health Canada. This database is managed by Health Canada and serves to regulate recommended dosage, forms of administration, general safety information, and duration of use instructions.

Duration-of-use warnings frequently reflect the lack of long-term studies for a certain ingredient, not necessarily an inherent danger past this time frame. Best advice in this case is to contact the manufacturer or your natural health-care practitioner; they can explain the rationale for the warning so you can make an informed decision.

It's your health: Defend it!

*I started working out, and I'm experiencing muscle and joint pain. I get some relief from traditional anti-inflammatories like curcumin, devil's claw, pancreatic enzymes, and serratiopeptidase; can you recommend something for more acute pain?*

Systemic anti-inflammatories like the ones you have mentioned work well and are the cornerstones of many effective natural formulas; however, dimethylsulfoxide (DMSO) is a topical analgesic worth exploring for acute and localized joint pain. DMSO rapidly penetrates the skin to decrease pain

Personally, I use DMSO for ankle pain resulting from a multiple ankle fracture; it works within minutes. DMSO increases membrane permeability, so make sure to clean your hands and site of application prior to use to prevent unwelcomed components to be absorbed.

On a side note, it may leave your skin feeling slightly itchy, and since it does contain sulfur, it might give you with mild garlic breath. A small price to pay for rapid pain relief.

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.

Reach out to him at [facebook.com/newrootsherbal](https://www.facebook.com/newrootsherbal) or call 1 800 268-9486 ext. 237

# Flourish

## Blog Preview

Visit our blog to  
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For more articles on health, lifestyle, and wellness—add to that delicious recipes!—all in a more dynamic and accessible format, visit our blog in the upcoming weeks at [flourishbodyandmind.com](http://flourishbodyandmind.com)



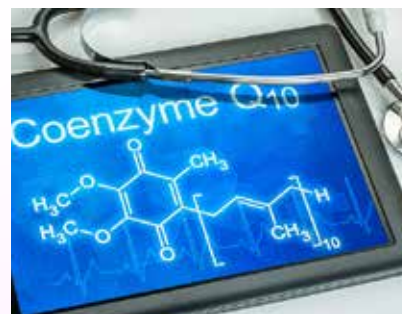
### Black Cumin Seed Oil

From India to Egypt, this ancestral plant has improved and healed humanity for millennia: *Nigella sativa*. Its seed produces an incredible oil full of health benefits which, when taken in a preventative manner, will defend the immune system against the most irritating allergies.



### A Great Pumpkin Recipe for the New Year!

Looking for another sumptuous vegan recipe to ease off your meat-based protein consumption? Heather Pace shares the superhealthy, dreamy flavour profile of her creamy pumpkin Alfredo recipe to fuel your body and soul for winter adventures!



### Health Benefits of Coenzyme Q<sub>10</sub>

For those suffering of cardiovascular disease, supplementation with CoQ<sub>10</sub> isn't just useful: It is essential. Japan, Hungary, Italy, and Norway are some of the countries that now authorize its prescription for cardiac problems and ischemic heart disease.

Congratulations  
to our winner  
Helene G.!



## Thank You for Sharing!

We want to thank all the readers that participated in our Fall survey. We appreciate all your comments.

The winner of the Aromatherapy Gift Set, containing a beautiful diffuser and five organic essential oils from New Roots Herbal, is Helene G. of Lorraine, QC.

For our Winter edition, everyone participating in our survey will qualify for a chance to win a selection of luxurious New Roots Herbal exotic oils.

Go to [flourishbodyandmind.com/feedback](http://flourishbodyandmind.com/feedback) and fill in the survey before February 29, 2020 to be entered, or give us a call at 1 800 268-9486 and ask to speak with Gord!

Hope to hear from you!



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