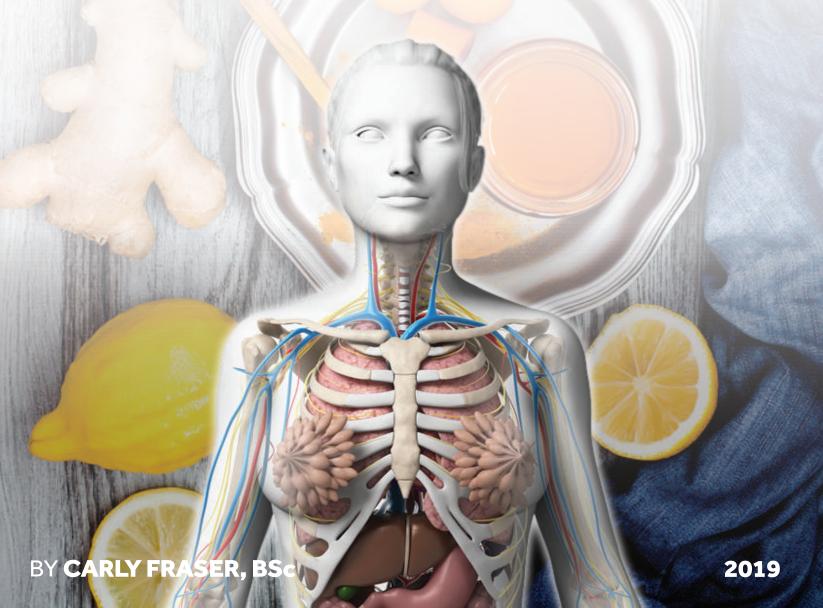


21 WAYS TO REDUCE CHRONIC INFLAMMATION

A Simple Step-by-Step Guide to Improve Your Health and Eliminate the Pain of Inflammation





21 WAYS TO REDUCE CHRONIC INFLAMMATION

By Carly Fraser, BSc

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Neither this or any other book should be used as a substitute for professional medical care or treatment.

TABLE OF CONTENTS

ntroduction	4
Bio	5
#1 Cold Therapy	6
#2 Probiotics	8
#3 Epsom Salt Baths	10
#4 Rebounding	12
#5 Vitamin D	14
#6 Eliminate Pro-Inflammatory Foods	16
#7 Enzymes	18
#8 Balance Your Omegas	20
#9 Do a Heavy Metal Detox	22
#10 Reduce Exposure to Toxins	24
#11 Eat More Anti-Inflammatory Foods	26
#12 Manage Stress	28
#13 Supplement with Anti-Inflammatory Herbs	30
#14 Avoid Antibiotics, Antacids & NSAIDs	32
#15 Get Tested for Food Sensitivites & Chronic Infections	34
#16 Exercise	36
#17 Get Enough Sleep	38
#18 Drink More Water	40
#19 Eat More Greens	42
#20 Maintain A Healthy Weight	44
#21 Limit Salt Intake	46
3 Free Recipes from the Freedom from Inflammation Ebook 💛	48
References	53

INTRODUCTION

In this eBook, I cover what I believe to be the top 21 Ways to Reduce Chronic Inflammation in The Body. These 21 practical lifestyle habits can be easily incorporated into your daily routine to quickly get rid of chronic aches and pains, FOREVER!

For many years I suffered from chronic inflammation in my body. This was because of the food I was consuming, lifestyle habits I was living and environmental factors I exposed myself to.

You might think that the pain you are experiencing is the result of 'bad genetics' and that it's simply your 'fate' in life. But I am here to shift that perception inside of you and set you up for a successful recovery, just like I did for myself.

This easy to follow eBook guide will help you discover and implement different habits and modalities to remediate inflammation in your body.

Just imagine waking up each morning, jumping out of bed and feeling energized and pain-free.

No more aching joints, no more chronic fatigue, no more digestive complaints, and effortless weight loss.

By adding into your daily routine the habits from this eBook that resonate with you most, and by removing the habits that are causing the pain...you WILL experience a completely new reality (and a pain-free one at that!).

Before you continue on to read the 21 ways, please give yourself permission right now to live a healthier life and heal your body from inflammation.

We are in this together!

BIO

Carly has her Bachelor of Science Honours Degree in Neuroscience, and has a determined life mission to help inspire and motivate individuals to critically think about what they put in their bodies.

Carly believes that finding a balance through nutrition and other lifestyle factors can greatly improve one's health. She has helped hundreds of thousands of individuals re-connect with their bodies and heal themselves with proper eating habits and natural living.

Carly gained a following after sharing her story of how she lost weight

and eliminated many chronic health conditions with a raw and vegan diet. Now, the health science expert is joined by more than a million followers to her site and social media platforms for insights into eating plant-based and living chemical-free.

> Carly has co-authored the publishing of two different studies related to her work as a research assistant and research coordinator at the Winnipeg Health Sciences Center and Saint Boniface Hospital. She now distills her wealth of knowledge into digestible info

via her website and social

media outlets.

Coly Four **Carly Fraser**

BSc & LLF FOUNDER



What is Cold Therapy?

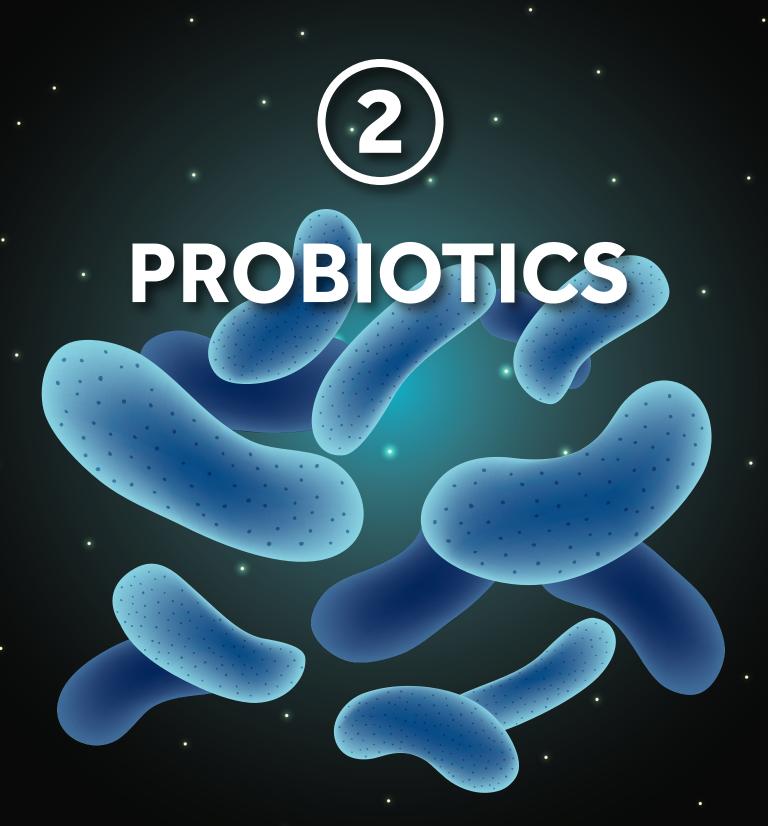
Cold therapy is a technique where you expose your body to cold temperatures. If practiced on a regular basis, immersing yourself in cold water can provide long-lasting health benefits. The best part? It's free.

The Main Benefits

Cold therapy is an easy way to boost your immune, lymphatic, circulatory and digestive systems. When our diets aren't optimal, digestive imbalances occur, which create slow elimination and an eventual acidic environment of backed up waste. This waste, when accumulated over a period of time, manifests as **chronic inflammation**. Stress, and other environmental factors can also contribute to built-up waste matter.

A key system in our body, the lymphatic system, requires a little help to keep it pumping (it doesn't come with an automatic pump like the heart). Cold water immersion helps in this regard, as it forces the lymphatic vessels to contract, allowing built-up waste to be effectively carried via lymph fluid. This triggers a response from the immune system, whereby white blood cells come to attack and destroy foreign invaders that are carried in the dislodged fluid.

- 1. Upon waking up, turn on your shower to a medium-cool temperature to get your body used to the water. Start slowly reducing the temperature until it is on the cold water-only setting.
- 2. Stand in the cold water, breathing deeply, for as long as you can (about 30 seconds), and then switch it back to a warmer setting. Breathing deeply will help warm up your body from the inside out.
- 3. Continue cycling between warm and cold water for 30 second intervals. Do this for about 3-5 minutes. Eventually you will be able to stand in the water for 5 minutes straight, with cold water only.





Probiotics are living microorganisms, often referred to as the "good" bacteria in your intestines. These bacteria or yeast are believed to enhance our health through their support of our immune system.

The Main Benefits

Probiotics boost the immune system, enhance the production of B vitamins, reduce the population of harmful bacteria in our gut, and improve the thickness and strength of the mucus that lines our intestines.

Probiotic bacteria produce substances called short chain fatty acids, which lower inflammatory markers (like pro-inflammatory cytokines) in addition to strengthening the lining of our gut [1]. This is important, because gut-associated inflammation has been linked to insulin resistance, some forms of cancer, and even mental health concerns.

- 1. Source out a good probiotic supplement (10 billion+) that includes these top five strains: Lactobaccilus plantarum, Lactobaccilus acidophilus, Lactobaccilus brevis, Bifidobacterium lactis, Bifidobacterium longum.
- 2. Take your probiotic supplement at least 30 minutes before a meal, or with your meal for improved survival of the bacteria [2].
- 3. Make sure you provide a nurturing environment for your probiotics by consuming prebiotic fiber found in plant foods like bananas, asparagus, onions, garlic, dandelion greens, apples and burdock root.
- 4. Probiotics can also be consumed through food and drink like sauerkraut, beet kvass, kimchi, miso, kombucha, kefir and coconut yogurt.



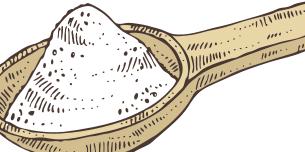












What Are Epsom Salts?

Epsom salt is a naturally occurring mineral compound of magnesium and sulfate. Studies have shown that magnesium and sulfate are readily absorbed through the skin [3], so taking epsom salt baths is a great way to absorb and utilize the minerals.

The Main Benefits

Magnesium, found abundantly in epsom salts, is one of the most important minerals in the human body. It regulates over 325 enzymes, and is key in reducing inflammation and assisting proper function of our nerves and cardiovascular system. Deficiency of magnesium has been linked to a variety of chronic health conditions like fibromyalgia, chronic fatigue syndrome, leaky gut, migraines and more.

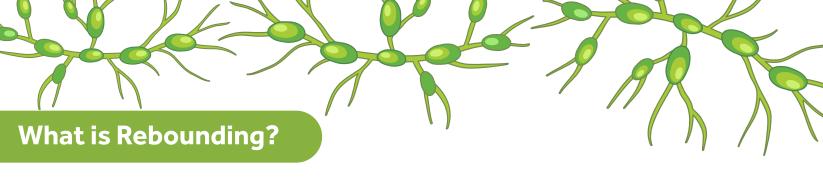
Studies have found that increased levels of magnesium coincide with lower levels of inflammatory indicators in the body like CRP, TNF-alpha and IL-6 [4].

Sulfate, another component of epsom salt, helps the body flush toxins, which exacerbate inflammation, while also reducing stiffness and pain.

How to Do It

- 1. Grab a bag of epsom salts at your local grocery store or bulk foods store.
- 2. Draw yourself a warm bath and add 1-2 cups of epsom salts depending on your weight. Add 1 cup if you weigh between 60-100 pounds. For every 50 pounds more, add an additional 1/2 cup of salts.
- 3. Add in a few drops of your favorite essential oil (like lavender) to help relax.
- 4. Make sure you schedule yourself at least 40 minutes to sit in a bath of epsom salts. The first 20 minutes pulls out toxins, and the next 20 allows the body to absorb minerals.





Rebounding is a type of aerobic exercise that involves jumping on a mini-trampoline. It is a form of low-impact exercise where individuals can perform a wide range of movements while not putting much strain on the joints in their knees or hips.

The Main Benefits

Rebounding is best known for its ability to clear a stagnant lymphatic system. Stagnant lymph inevitably leads to inflammation, which is a strong determinant of most disease. Rebounding helps circulate the lymph fluid, which carries waste and other byproducts through the lymph nodes and out of the major detoxification pathways like the liver and kidneys.

Other benefits of rebounding include improved balance, coordination and overall motor skills, as well as healthier bones. Bouncing puts a small amount of pressure on the bones, helping them grow stronger, while decreasing bone resorption (which can lead to conditions like osteoporosis) [5].

- 1. Find a rebounder you can utilize for years to come. My personal favorite brand, that can withstand years of wear, is Bellicon. Similar brands like JumpSport also work, if you need an option that is a bit easier on the wallet.
- 2. Once you have your rebounder, put on some shoes (or go barefoot to work the muscles in the foot) and slowly start jumping gently with your feet still on the rebounder. Eventually, you'll want to work your way up to jumping with your feet leaving the rebounder.
- 3. Jump for 15-20 minutes every day, utilizing different moves so you don't over use the same muscles each time you work out.
- 4. If you get bored, turn on some of your favorite music!



What is Vitamin D?

While vitamin D is popularly known as a 'vitamin,' it is actually a fat-soluble pro-hormone steroid. Vitamin D's primary role is to control the levels of calcium found in the bloodstream. Our bodies make vitamin D by converting UV-B rays that land on the skin into a substance called 7-dehydrocholesterol. This substance converts "previtamin D" and makes it into usable vitamin D3 [6].

The Main Benefits

Vitamin D impacts not only our skeletal structure, but also our blood pressure, brain function, mood and immunity. It affects the expression of over 1,000 genes with the possibility of **affecting over 27,000**.

There is evidence to suggest that low levels of vitamin D are linked with higher levels of inflammation in the body [7, 8]. When vitamin D levels are sufficient, this hormone helps decrease markers of systemic inflammation, reducing the risk of developing certain diseases.

Vitamin D is also important for keeping our bones strong, and reducing cancer risk.

- Set aside 15-20 minutes in your day to get out into the sun.
- 2. Go out in the sun during safer hours of the day (like 10am 12pm and 3pm-5pm in the Northern hemisphere). If you must be out in the sun all day, use a natural sunscreen like Raw Elements.
- Avoid taking a shower or scrubbing your skin at least 48 hours after you've been in the sun (this will allow vitamin D to properly absorb).
- 4. During the winter season when you're outside for very little hours in the day, I suggest taking a vitamin D3 supplement. Around 5,000-7,000 IU's a day should suffice.





The most inflammatory foods are those with the highest risk of sensitivity and allergy. Prime suspects include refined sugar, vegetable oil, dairy, wheat, fried foods, red and processed meats, corn, trans fats, artificial chemicals, flavors and other food additives.

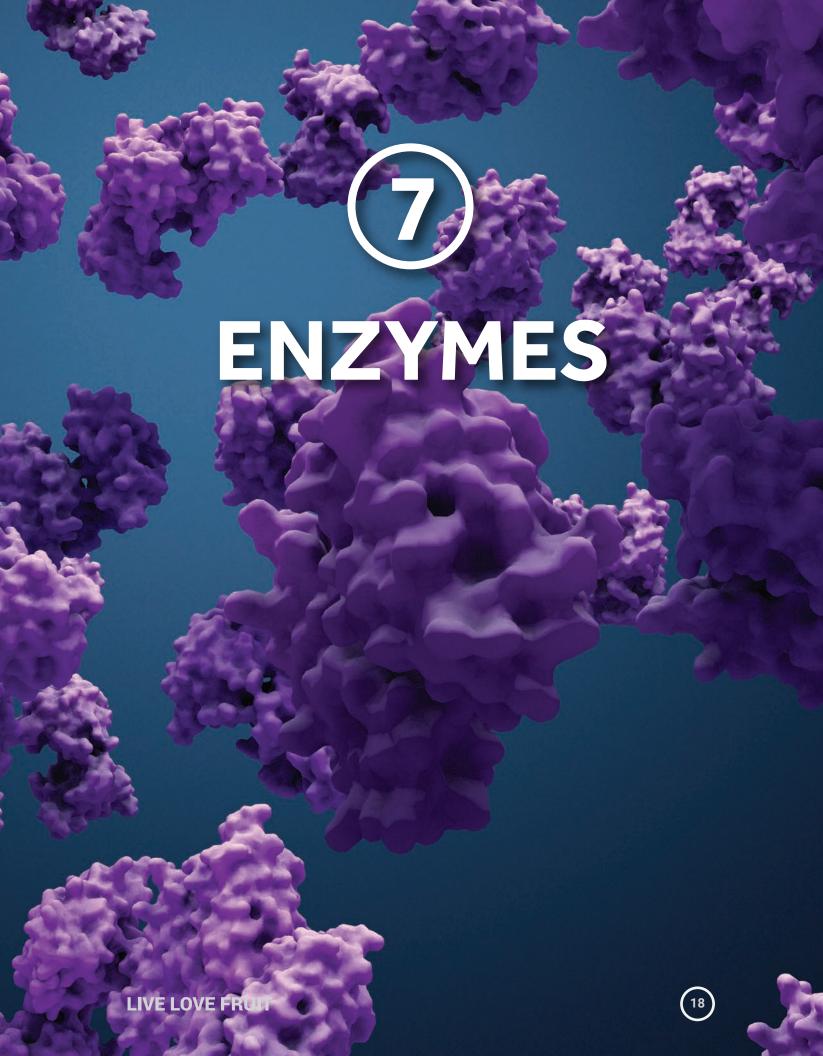
The Main Benefits of Eliminating These Foods

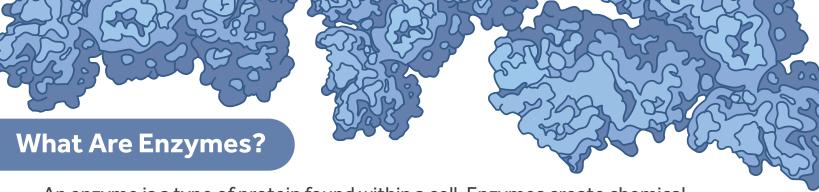
Pro-inflammatory foods act like foreign invaders in the body that our immune system scouts out and attacks. When these foods are consumed on a daily basis, our immune system is constantly on high alert, so we become chronically inflamed, sick and exhausted.

Chronic inflammation that stems from a poor diet can drive illnesses like diabetes, heart disease, fatty liver disease and cancer [9, 10]. By eating fewer of these inflammatory foods, you can drastically reduce your risk of developing an inflammation-triggered disease later in life.

How to Do It

- 1. Eat meat sparingly or not at all. Choose organic if you still consume it.
- 2. Steer clear of oils like canola, soy, safflower and sunflower oil. Swap these out for oils like coconut, avocado, or olive oil.
- 3. Swap out wheat for low or no-gluten flours like buckwheat, cassava, coconut, spelt and almond flour. If you must choose wheat, pick ones that are organic and sprouted for best digestion.
- 4. Swap out dairy for plant-based alternatives like coconut, almond or oat.
- 5. Avoid ingredients like MSG, refined sugar, artificial food coloring, artificial flavors, sodium nitrite, artificial sweeteners, carrageenan, high-fructose corn syrup and sodium benzoate.





An enzyme is a type of protein found within a cell. Enzymes create chemical reactions in the body, and help your body perform very important tasks. They help build muscle, destroy toxins and break down food particles during digestion. The three main types of digestive enzymes include protease (break down protein), lipase (break down fat) and amylase (break down carbs).

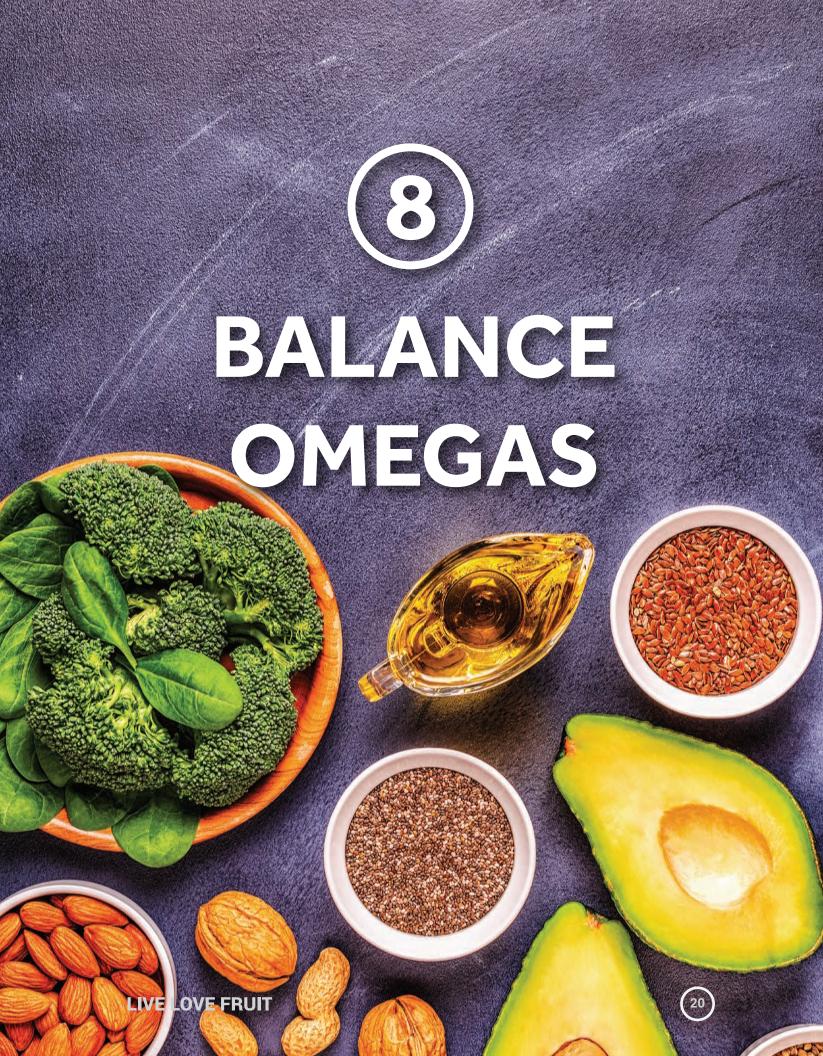
The Main Benefits

Digestive enzymes are naturally produced by the body. However, their production slows with age, increased stress and poor diet. This means that the food you eat won't break down properly, and as a result, you won't be absorbing essential nutrients.

When food isn't digested properly, larger undigested molecules can break through cell walls in your digestive tract (this is called "leaky gut syndrome"). These molecules then enter your blood, which triggers your immune system to kick into gear and fight these "invaders". As a result, your intestines (and other body parts) become inflamed.

Enzymes also help reduce symptoms of IBS, migraines [11], promote clearer skin, combat anxiety, improve focus and inhibit autoimmune disease.

- 1. Eat more raw whole food sources. The process of cooking completely destroys the enzymes in the food we eat. Try having a smoothie for breakfast, and a big salad alongside your dinner to aid digestion.
- 2. Focus on consuming enzyme-rich fruit and vegetables like pineapple, ginger, papaya, kiwi and fermented foods like sauerkraut and kefir!
- 3. If you choose to take an enzyme supplement, look for one that is described as "delayed release" in capsule form. It should contain a mix of bromelain, protease, papain and serrapeptase.





Omega-3 and -6 fats are essential fatty acids that the body needs for normal growth and development. The body needs a healthy balance of omega-6 and omega-3 fatty acids, but many people currently consume more 6s than 3s. This imbalance can contribute to many different forms of chronic disease.

The Main Benefits of Balancing Your Fats

The recommended ratio of omega-6 to omega-3 fatty acids in the diet is 4:1 or less. However, the Western diet currently provides a ratio between 10:1 and 50:1 [12].

Excess consumption of omega-6s can trigger the body to produce pro-inflammatory chemicals. Omega-3s are considered anti-inflammatory, but scientists have hypothesized that eating too much omega-6 counteracts these beneficial effects.

So a diet with a lot of omega-6 and not much omega-3 will increase inflammation, while a diet high in omega-3s and low in omega-6 will reduce inflammation. Making sure these levels are in check is a crucial step in fighting inflammation.

How to Do It

- 1. Start consuming foods rich in omega-3s like chia, flax, walnuts, kidney beans, hemp seeds, seaweed and algae (like spirulina).
- 2. Cut down or limit the amount of foods that have been cooked in refined vegetable oils high in omega-6 fatty acids. This includes oils like corn, sunflower, canola, safflower, grapeseed, soy and peanut oil.
- 3. Take a high-quality DHA supplement like those created by Cymbiotika (especially if you're vegan and consume plant-based sources of omega-3 fatty acids that are richer in EPA and ALA, but less concentrated in DHA).



HEAVY METAL DETOX



Heavy metals are trace metals that cannot be metabolized by the body. The most harmful heavy metals are aluminum, arsenic, cadmium, copper, lead, mercury and nickel. We are exposed to heavy metals from the air we breathe, water we drink, and food we eat.

The Main Benefits

If the body's detoxification pathways aren't functioning at their best, then heavy metals will gradually accumulate in our body tissues.

Heavy metals that have been lingering in our tissues for years on end have the ability to oxidize, causing damage to surrounding tissue and promoting inflammation [13]. By utilizing herbs and different techniques, you can effectively get rid of these metals and lower the inflammatory response in the body.

Heavy metals also wreak havoc on our nervous system, leading to conditions like brain fog, confusion, lack of motivation and memory problems. They are also known to cause fatigue, headaches, skin problems and poor digestion.

- 1. Eat organic when possible. Avoid the "Dirty Dozen" at minimum.
- 2. Drink filtered water or spring water over heavy metal-laden tap water.
- 3. Reduce consumption of farmed fish and rice. They are highly contaminated with mercury and arsenic, respectively.
- 4. Eat at least 1 cup a day of wild blueberries and cilantro, and 1 teaspoon of barley grass juice powder to mobilize heavy metals from the body.
- 5. Once mobilized, bind heavy metals for removal from the body with two teaspoons each of: atlantic dulse, spirulina and activated charcoal.





A toxin is something that can be harmful to your body and one of these impacts can be increased inflammation. We come into contact with toxins by breathing them in (air pollution), eating them (pesticides and herbicides), or having them touch our skin.

The Main Benefits

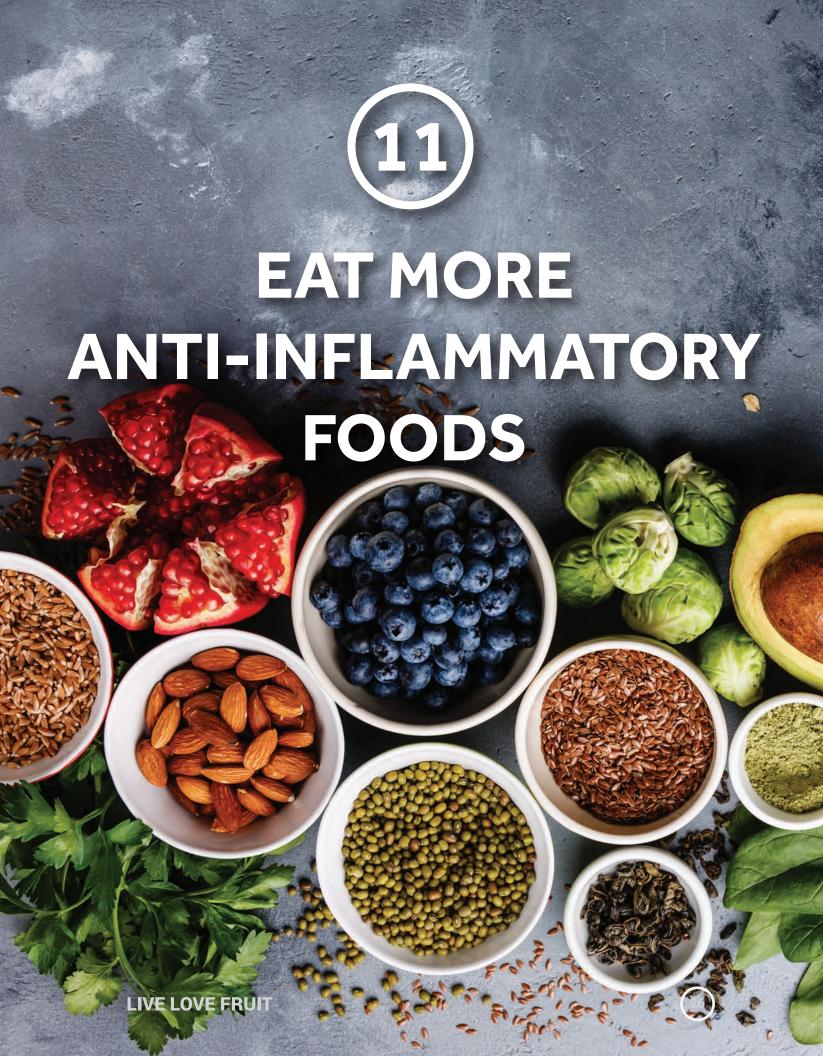
Your body eliminates toxins through your detox organs like the liver, kidneys, digestive system, skin and lungs. Unfortunately, if these organs aren't healthy enough to do their job properly, they will have trouble eliminating toxic waste.

Reducing toxin exposure gives our detox organs a much needed break. As a result, it gives the body a chance to start clearing out toxins that have accumulated at the cellular level to help avoid long-term damage. It also eases stress on the immune system, which might constantly be on guard to protect our delicate organs and cells from the threat of toxic particles.

While some toxins are environmental, we can reduce our exposure and our contribution to overall emissions of toxins by making some simple lifestyle shifts.

How to Do It

- 1. Get rid of products in your home that contain synthetic fragrance like air fresheners, dryer sheets, scented candles, laundry detergent and more.
- 2. Switch to non-toxic cleaning products, and use vinegar and water instead.
- 3. Choose glass containers to store and heat up food in (avoid plastic!).
- 4. Drink 3-4 litres of filtered or spring water daily, and limit alcohol consumption.
- 5. Eat organic food when possible, or at the bare minimum, avoid conventional produce from the "Dirty Dozen" list.





What Are Anti-Inflammatory Foods?

Chemical compounds found naturally in nearly all fruit and vegetables possess anti-inflammatory properties, which (you guessed it), help reduce inflammation. This includes foods like pinapple, cherries, berries, beets, leafy greens, citrus fruit, broccoli, avocado, grapes, and peppers.

The Main Benefits

Anti-inflammatory foods fight inflammation at the source. These foods contain antioxidants and polyphenols that destroy free radicals, which are the cause of disease and illness as a direct result of the inflammation they create.

Protecting your body against the damage caused by inflammation will lower your risk for developing certain diseases later in life like diabetes, heart disease, cancer, asthma, osteoporosis and can even protect against mental health disorders like depression.

By adding in anti-inflammatory foods to your diet, you can fight inflammation and restore health at a cellular level.

- 1. Make a grocery list of the anti-inflammatory foods mentioned above, and pick them up from the grocery store (choose organic when possible).
- 2. Try incorporating at least 1-2 of these foods in your daily meal plan.
- 3. Swap out your regular breakfast with an anti-inflammatory smoothie with pineapple, mango, coconut, spinach and chia seeds.
- 4. Swap out your second coffee for some celery juice or other green juice to give your body a beneficial dose of inflammation-busting antioxidants.
- 5. Eat fruit, vegetables, nuts and seeds in place of processed snack foods.





Stress is your body's way of responding to any kind of demand. It can be caused by both good and bad experiences. When your body is experiencing stress, your adrenal glands (located on top of your kidneys) release a surge or hormones, including adrenaline and cortisol.

The Main Benefits of Managing Stress

When you're constantly feeling stressed, or stressors are always present, cortisol and adrenaline remain chronically elevated. This is highly disruptive on the body and puts you at increased risk of many health problems like anxiety, depression, digestive problems, headaches, weight gain, sleep problems, heart disease, and brain fog.

When stress becomes chronic, it can lead to constant tissue breakdown and impairment of the immune system. This makes the body less able to regulate the inflammatory response, thereby increasing susceptibility to disease [14].

Although there are situations outside our control, the good thing is that we can use a few simple tools to help manage the impacts of those stressors on our lives.

- 1. Practice deep relaxation like yoga, breathing, meditation or massage.
- 2. Take time for hobbies, like reading a book, making art or listening to music.
- 3. Exercise regularly, even if it's just a 15-30 minute walk each day.
- 4. Supplement with nervous system-calming herbs like lemon balm and ashwagandha.
- 5. Reduce caffeine intake, as it can heighten your stress response. Opt for alternatives like roasted chicory root or yerba maté tea.



SUPPLEMENT WITH ANTI-INFLAMMATORY HERBS



Anti-inflammatory herbs are those that possess properties to reduce swelling, promote blood circulation and tissue irrigation. These anti-inflammatories include things like turmeric, ginger, rosemary, cinnamon, white willow, cat's claw, frankincense and black pepper.

The Main Benefits

The antioxidant content of many anti-inflammatory herbs make them able to target inflammation at the source. This helps reduce dependency on anti-inflammatory drugs like ibuprofen, which can cause stomach bleeding.

Turmeric and ginger offer inflammatory relief as their active components selectively scavenge and destroy inflammation-causing free radicals in the body [15, 16]. Rosemary helps deregulate pathways associated with inflammation, while cinnamon induces the expression of anti-inflammatory proteins that help fight against inflammation-induced disease [17].

Cat's claw and white willow have both been shown to reduce inflammatory responses in the body, with white willow having a comparable effect to aspirin [18].

- 1. Start adding these spices to your food. Turmeric and pepper make great additions to soups or stews, and cinnamon is great in baking or smoothies!
- 2. Make a turmeric paste by adding 1/2 cup turmeric powder with 1 cup of water and boiling it down for 7 minutes until thick. Add in 1 tsp. cracked black pepper and 1/4 cup coconut oil, stir, and store in a jar up to 3-4 weeks in the fridge. Take 1/2 teaspoon, 3-4 times daily.
- 3. For herbs like cats claw and white willow, you'll want to take them in tincture, tea, or capsule format. It is recommended to take 20 to 60 mg daily of cat's claw, and 240 mg per day of white willow bark for ongoing conditions.



AVOID ANTIBIOTICS, ANTACIDS & NSAIDS





What Are Antibiotics, Antacids & NSAIDS?

Antibiotics are medicines that fight infections caused by bacteria (NOT viruses). Antacids are a class of medicines that neutralize acid in the stomach. Lastly, NSAIDs are non-steroidal anti-inflammatory drugs, which are often non-prescription and include drugs like aspirin and ibuprofen.

The Main Benefits

One of the most effective ways to prevent chronic inflammation is by minimizing the intake of antibiotics, antacids and NSAIDs. These drugs harm the microbiome in the gut, causing inflammation in the intestinal walls (otherwise known as leaky gut). As a result, toxins are released into the bloodstream, triggering chronic inflammation [19].

As these drugs make our gut more permeable, they allow what normally wouldn't make it through to the bloodstream: undigested food particles. These particles trigger inflammation, and a chain reaction of problems like bloating, gas, cramps, food sensitivities, fatigue, headaches and joint pain.

- 1. If you're currently using prescription antibiotics, antacids or NSAIDs, talk to your doctor about options for going off of them, if that is a safe possibility.
- 2. Sometimes doctors prescribe antibiotics for viral infections, which is not necessary. Always double check you have a proper prescription, or if the issue will resolve itself over time.
- 3. Always follow up with a high-quality probiotic after taking a series of antibiotics to rebuild the good bacteria in your gut.
- 4. If you regularly depend on NSAIDs to relieve your pain (like ibuprofen or aspirin), consider switching to anti-inflammatory herbs like turmeric, which has been proven as effective as ibuprofen [20].



GETTESTED FOR CHRONIC INFECTIONS

LIVE LOVE FRUIT

34



Chronic infections like bacteria, viruses, yeast, and parasites, as well as food sensitivities can drag down our immune system and trigger chronic inflammatory responses in the body.

The Main Benefits of Getting Tested

Chronic infections and food sensitivities negatively impact our immune system, but how does this exacerbate inflammation?

Inflammation, in many cases, is the immune system's response to harmful stimuli (like bacteria, viruses, parasites and certain food particles). When we have chronic infections that go unnoticed, our immune system gets triggered, and inflammation becomes a constant. This can eventually lead to tissue damage or disease. Both infectious and non-infectious agents, like food particle sensitivity and cell damage, turn on inflammatory signaling pathways [21].

Removing food sensitivities (whether that is gluten, soy, dairy, eggs or yeast), and getting treatment for chronic and/or hidden infections gives our immune system some time to relax. It will also give our immune cells the chance to heal damaged tissue, and reduce the risk of developing chronic disease.

How to Do It

- 1. Find a good integrative medical doctor that will take a holistic approach to your health. Naturopathic doctors are also a great option.
- 2. If you believe chronic infections are suspect in your inflammation mystery, request blood work and/or stool samples to be analyzed.
- 3. If you think you might have a sensitivity or allergy, start paying close attention to what you're eating and how it makes you feel.
- 4. If food sensitivity symptoms persist, your doctor may suggest a blood test or elimination diet. You can also try to eliminate certain trigger foods yourself for a week or two to see if it will relieve your symptoms.





Your body was built to move. It was designed to walk, run, skip, dance, push and pull. Back in the day, people were much more physically active. As technology changed through the 21st century, the need for everyday movement decreased significantly. This lack of exercise has become a major cause of chronic disease.

The Main Benefits

Our muscles connect to our bones via tendons and ligaments as a form of structural support. When you use your muscles regularly, you're stimulating the growth of new muscle, and bone cell production, which means reduced risk of developing diseases like osteoporosis.

When you start exercising and moving your muscles, your muscle cells release a protein called Interleukin 6, or IL-6. This protein plays an important role in fighting inflammation by lowering levels of inflammation-triggering proteins like TNF-alpha and interleukin-1-beta.

In addition, it has been found that one 20-minute session of brisk walking can have anti-inflammatory effects on the body through its stimulation of the sympathetic nervous system [22].

- 1. Pick a time in your schedule that you can set aside for some exercise. This might mean waking up a little earlier (it's worth it trust me!).
- 2. Use this time to go on a brisk 20-30 minute walk. You can do this as often as you please, but aim for 3-5 days a week.
- 3. If you get easily bored with exercise, consider joining an exercise class, which can be fun, stimulating, collaborative and educational.
- Consider walking up and down the stairs at your office instead of taking elevators or escalators.





Sleep is regulated by a strong internal drive, telling our bodies that it needs time to rest and recuperate and recover. Many restorative functions in the body like muscle growth, tissue repair, protein synthesis and growth hormone release occur mostly, or in some cases only, during sleep.

The Main Benefits

A good night's sleep is incredibly important for your heath. Sleeping 8-9 hours every night can drastically change the way you look and feel.

For example, studies have found that those who sleep longer have a reduced risk of weight gain and obesity [23]. Getting enough sleep has also been linked to improved concentration and productivity, as well as reduced risk of heart disease, stroke, type 2 diabetes and depression.

But that's not all. Getting long rested hours during the night is directly linked to lower levels of inflammation in the body. According to new research, losing sleep for even a few short hours during the night can trigger cellular pathways that produce tissue-damaging inflammation [24].

- 1. Turn off the lights at least 1-2 hours before going to bed. If you need some light, opt for red light (like a string of red LED christmas lights) or warm light from a salt lamp.
- 2. Limit your exposure to blue light before bed, which is emitted from electronics like smart phones, computers and tablets.
- 3. Turn off the wifi in your house during sleeping hours (also, turn off your phone).
- 4. Don't drink any caffeine past 12pm. If you want to drink something warm later in the day, consider calming herbal teas like chamomile, which will help relax the body.
- 5. Exercise early in the day, so your body is tired and ready to fall asleep later in the night.



Why Do We Need Water?

Our body is about 60% water by weight! Water is used by our cells, tissues and organs to help regulate the body's temperature and maintain other bodily functions. As a general guideline, people should drink between 2-4 liters of water, depending on body weight.

The Main Benefits

A major benefit of drinking more water is how it impacts the brain. Studies show that even mild dehydration (1-3% of body weight) can impair brain function, which can trigger mood swings, poor concentration and headaches [25]. Drinking more water may also help relieve constipation, treat kidney stones and improve skin complexion.

Furthermore, chronic dehydration can stimulate inflammatory signaling in our endothelial cells (the cells that line our blood and lymphatic vessels), which can increase an individuals risk of developing cardiovascular disease [26].

In addition, not getting enough water can significantly impact our lymphatic system. When we're dehydrated, our lymph has a harder time moving, which can result in a back-up of toxic waste matter and a subsequent increase of inflammatory responses in the body.

- 1. Upon waking up, drink at least 1-2 cups of filtered water. Eventually increase this amount over the course of a week, until you can comfortably drink 4 cups (1 litre).
- 2. Drink another litre of water 20-30 minutes before each meal to stimulate digestion.
- 3. Make drinking water more fun by adding lemon, mint or cucumber slices.
- 4. Whenever you finish your glass or bottle, make a habit to immediately fill it back up.
- 5. Start incorporating more water-rich foods into your diet like watermelon, cucumber, zucchini and citrus fruit. These foods hydrate your body on a cellular level.





Green leafy vegetables are among the best foods on the planet, and some of the most nutrient-dense, too. They're packed with antioxidants, vitamins, minerals and important phytonutrients that fight disease and calm agitated nervous systems.

The Main Benefits

Studies have found that those who eat a high quantity of leafy greens each day have slower rates of cognitive decline compared to those who eat the least [27]. Not only do they support brain health, but they're rich sources of beta-carotene, which can give your skin a youthful glow, and even protect it from harmful UV rays [28].

Dark green vegetables and leafy greens are also known for their inflammation-fighting properties. For example, greens, like kale or broccoli, have a compound called quercetin, which possesses properties similar to anti-inflammatory drugs like aspirin and ibuprofen. Quercetin blocks the effects of tumor necrosis factor (TNF), which is often found in high levels in those with rheumatoid arthritis [29].

How to Do It

- 1. Buy bulk packages of organic greens and store them in your freezer. Use these greens in smoothies, soups, stews or stir-frys.
- 2. Add greens into anything you can fit them in. Whether that's sandwiches, wraps, pizza, or even baked goods, you'll be glad you did it!
- 3. If you're making a smoothie, add 1-2 cups of your favorite green (like spinach, or romaine). And trust me you can't taste the greens if you add sweet fruit like dates!
- 4. Try eating a salad every day. Fill your salad bowl with arugula, mixed baby greens and red cabbage. You can add quinoa, tomato, avocado, and any other favorite additions.
- 5. Prepare fresh green juices with a juicer or blender (and strain with a nut milk bag). A great combination is 6 ribs of celery, 4-6 leaves of kale, 1 lemon, 1 apple and ginger.





A healthy weight for each individual will be very subjective. Someone who is 160 pounds might have a more muscular body type, which fits that weight, compared to someone who might have a very narrow, less muscular body frame. For me, a healthy weight is a weight I feel most comfortable and healthy in, where I can actively move my body and not feel out of breath.

The Main Benefits

The connection between being overweight and experiencing more joint pain is strong. Studies have shown that adults over 18 years of age who are overweight or obese are up to 15% more likely to report doctor-diagnosed arthritis [30]. The reasoning for this is because carrying extra weight puts strain on your bones and joints.

Fat cells are also capable of creating chemical signals that lead to chronic inflammation. Studies have found that weight increases are associated with chronic inflammation, and that the relationship is linear. This means that as a person's weight increases, so do the levels of C-reactive proteins (inflammation markers) in their blood [31].

The good news? Shedding just a few pounds can often be enough to ease pain and prevent future inflammation.

- 1. If you feel you aren't in the best shape, start by going on small walks around your neighborhood. Even a short 15 minute walk is enough to boost your metabolism.
- 2. Increase your walking to 30-45 minutes each day. This might mean waking up a bit earlier in the morning to fit it in, but at least you'll get it over and done with for the day!
- 3. Try intermittent fasting, which is eating only during a certain period of time, and fasting for 16 hours inbetween. For example, finish eating breakfast at 11am, and supper by 7pm.
- 4. Start making your food from scratch, putting a large focus on vegetables and fruit. For breakfast, make a green smoothie, and finish the day with dishes that focus on veggies.









Salt is a substance produced by the reaction of an acid with a base. The salt that we consume is also called sodium chloride, and consists of 40% sodium and 60% chloride, by weight.

The Main Benefits of Limiting Salt Intake

When consuming too much salt, especially too much of the overly refined table salt, our bodies become inflamed.

Excess sodium is normally secreted in urine, but if your kidneys can't eliminate it fast enough, it accumulates in your bloodstream. Your blood volume then starts to swell, because sodium holds onto water. This directly affects your heart, making it pump harder. Inflamed veins and arteries associated with high salt intake may place uncomfortable pressure on the surrounding joints, and can actually exacerbate conditions like arthritis.

Excess salt intake has also been found to trigger or worsen certain autoimmune diseases by increasing amounts of pro-inflammatory cytokines [32].

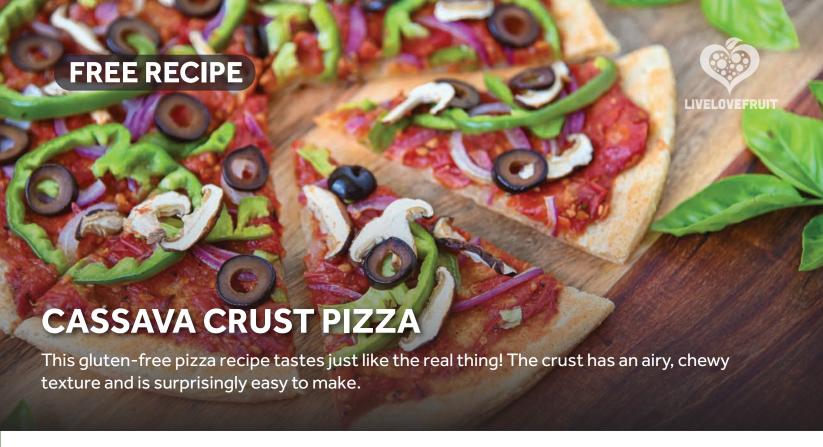
How to Do It

- 1. If you currently use table salt, swap it out with mineral and electrolyte-dense celtic sea salt. It might be a little more expensive, but the benefits are well worth it.
- 2. Cook from scratch, so that you know exactly how much salt goes into your food.
- 3. When opting for packaged foods, choose those that are sodium free or low in sodium.
- 4. Start substituting spices, herbs and salt-free blends for salt on your food. Over time, your taste buds will become fine-tuned, and you won't depend on salt as much.
- 5. Try and break the habit of automatically reaching for the salt shaker. Leaving it stored away while you eat will keep it out of reach.

THREE FREE RECIPES

from the Freedom from Inflammation eBook

- Cassava Crust Pizza
- Sweet Potato Tahini Brownies
- Spiced Turmeric Tonic



- 2 cups mashed yuca root* (peeled, cut into large pieces, boiled until fork tender (12-15 minutes) and drained)
- 1 tablespoon coconut oil
- 2 tablespoons coconut flour or almond flour
- 1/2 teaspoon sea salt

Makes 1-2 servings

*Cassava or yuca root is easily found in large grocery stores or Asian food stores. In Canada, the Real Canadian Superstore regularly carries it.

PIZZA SAUCE

- 2 cups cherry tomatoes
- 1/2 teaspoon each of dried oregano, basil and garlic powder
- sea salt & black pepper to taste

METHOD

- 1. Preheat oven to 375.
- 2. Combine all ingredients in a food processor, and pureé until a dough is formed.
- 3. Empty dough onto parchment paper and roll out to make 1 or 2 crusts (1/2 inch thick).
- 4. Bake 15-20 minutes on parchment lined baking sheet or until nicely browned. Remove from oven and flip crust(s) over, and continue baking until the other side is browned.
- 5. While crust is baking, add all pizza sauce ingredients to a pot and simmer on medium until a paste is formed (about 10 minutes).
- 6. Assemble the pizza with your sauce, toppings (I love green pepper, onion, mushrooms and black olives), and then bake again for another 10-15 minutes.



SWEET POTATO TAHINI BROWNIES

The perfect recipe to satisfy your sweet tooth without having to feel guilty after. Packed with sweet potatoes for moisture and tahini for richness and decadency.

- 2/3 cup cooked, mashed sweet potato (about one large sweet potato)
- 1/3 cup sesame tahini
- 1/2 cup coconut sugar
- 2 flax eggs*
- 2 teaspoons vanilla extract
- 3/4 cup almond flour
- 1/4 cup coconut flour
- 1/4 cup cacao or cocoa powder
- 1/2 teaspoon baking soda
- 1/4 teaspoon salt

Makes 8-9 servings

*To make a flax egg, mix 1 tbsp. flaxseed meal with 2.5 tbsp. of water, and mix. Let stand for 5 minutes before using. For this recipe you will need 2 tbsp. flax in 5 tbsp. water.

METHOD

- 1. Preheat oven to 350°F and line a small brownie pan with parchment paper on the bottom and rub coconut oil on the sides.
- 2. Using a hand mixer and a bowl or food processor, mix the sweet potato, tahini and coconut sugar. Add in the flax eggs and vanilla and mix until well combined.
- 3. Add all of the remaining ingredients, and whisk by hand until well mixed.
- 4. Spoon and press down the mixture into a baking pan. Bake for 20-25 minutes, or until a toothpick comes out clean.
- 5. Let cool completely before cutting and eating. Store in fridge for up to one week.



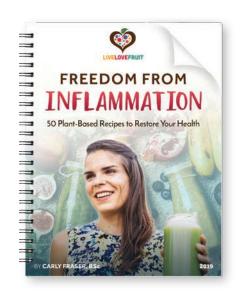
- 2 cups coconut milk (Real Thai is my favorite brand)
- 1 teaspoon turmeric powder
- 1/2 teaspoon cinnamon powder
- 1 teaspoon freshly grated ginger root
- pinch of ground black pepper
- 1 teaspoon maple syrup or sweetener of choice

Makes 4 servings
*If you are purchasing turmeric
powder, make sure that it has
been tested and free from heavy
metals. Turmeric is a major
source of lead contamination.

METHOD

- 1. Bring coconut milk to a boil, and then reduce to simmer.
- 2. Add turmeric, cinnamon, ginger and black pepper and lightly whisk to incorporate.
- 3. Let simmer for about 3-5 minutes.
- 4. Remove from heat and strain.
- 5. Mix in sweetener and drink immediately.





VIVELOVEFRUIT

The Freedom From Inflammation recipe eBook is coming soon, in January 2020...

For now, join our private Facebook group to connect with the Live Love Fruit community!

CLICK HERE TO JOIN ☐



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