- Inflammation

REAL STORIES AND HEALTHY LIVING IDEAS

Life + Health

SPECIAL REPORT

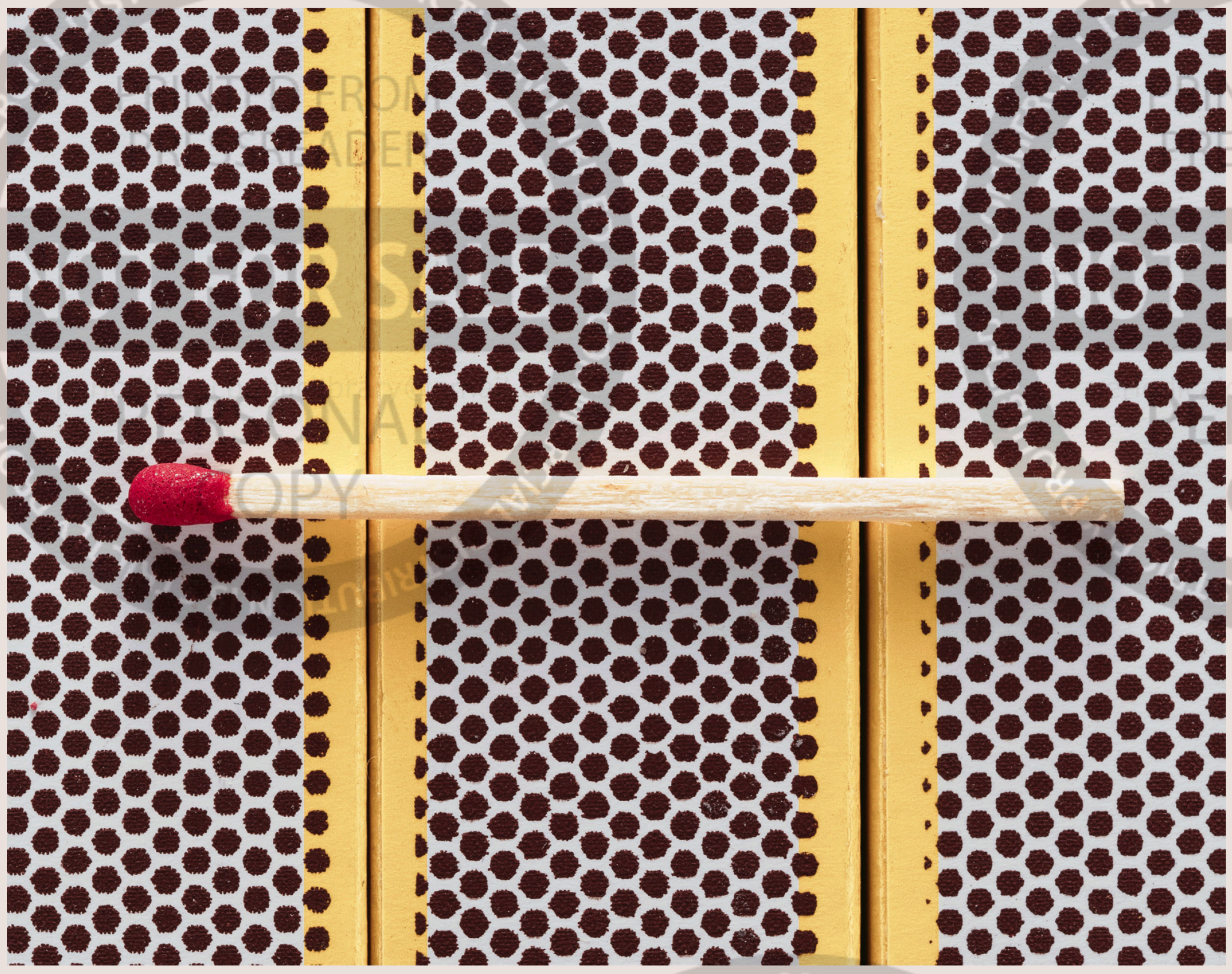
EVERYTHING you NEED to KNOW about INFLAMMATION

More than half of all deaths are thought to be attributed to diseases related to inflammation—yet our bodies can't function without it. Our special report on this perplexing topic reveals what inflammation does in the body and how you can stop it. Plus, three women share how inflammatory conditions changed their lives.

by **THE GOOD HOUSEKEEPING HEALTH NEWSROOM**

Match: Getty Images.

COMMERCIAL DISTRIBUTION IS STRICTLY PROHIBITED
PRINTED FROM PRESSREADER
NOT FOR SALE
PERSONAL COPY



WHAT IS INFLAMMATION?

It's the body's first line of defense. The problems begin when inflammation becomes chronic.

Let's start with the basics, including this surprising fact: Inflammation can sometimes be good for you — at first, that is. Think of it as the body's defense system, helping it heal from injuries and fight off infections. Let's say, for example, you get a bloody scrape on your knee when you trip over your dog's leash on a hike. Your body immediately releases chemicals that are a sort of red alert; white blood cells then act like a tiny SWAT team, rushing toward your knee to start the healing process. You might experience the resulting inflammation as pain, swelling, redness or warmth. "An inflammatory response activates your immune system to fight

an infection, and that's how you get better," says Sadiya Khan, M.D., Magerstadt Professor of Cardiovascular Epidemiology at the Northwestern University Feinberg School of Medicine in Chicago. If you come down with a cold or a bacterial infection, this process happens inside the cells and tissues, where you usually can't see it.

This immediate response to a trigger, known as acute inflammation, is meant to be short-lived. After the white blood cells have done their job, your wound heals, or the fever breaks, you feel better and the inflammatory process winds down.

But sometimes the body can't quite figure out when or how to stop it and inflammation becomes chronic — and that's when the process goes from helpful to harmful. *Now that you know what inflammation is, turn the page to find out what to do if it won't go away.*

Match on matchboxes and flames: Getty Images. Smith-Henry: Susan Eason Photography.



All autoimmune illnesses involve inflammation. Three women share how they followed their mystery symptoms to a diagnosis — and treatment.

"My joints ached and I was always tired."

SEBRINA SMITH-HENRY, 56

By the time I had my daughter when I was 27, I was tired all the time. I'd get really thirsty, and I kept noticing aches and pains and stiffness in all my joints. It was odd because I was very active as a kid; then, as an adult, I got my teaching license and worked first in a classroom, then as a tutor.

At that time, my ob/gyn told me I was anemic, and I started taking iron pills. But the pills didn't really help, so I had to go to the hospital for iron and vitamin infusions. I would be there for the whole day and then go home and feel great, but I was still so tired, and by the next day I was just blown out and exhausted. I still didn't know what was wrong with me.

Help from an observant nurse

When my daughter was 7, she had some complications with type 2 diabetes, so her doctor enrolled her in a clinical study at Duke Children's Hospital & Health Center in Durham, NC. There was a guest room at the hospital for me to stay in when she was being treated. One of the nurses there could see how tired I was, so she told me to go lie down. When she came to check on me, she told me I had been sleeping for eight hours! I said to her, "Lord, I'm just so tired all the time." So she took my vitals and told me, "You need to tell your doctor about all these things that are happening to you."

Until that point I had been going to a military hospital because my husband at the time was in the service. I never saw the same doctor twice there, so I don't think anyone was putting the pieces together. Finally, though, I was sent to an outside doctor. He looked at my eyes and scalp and asked me how long I'd had a keloid on my skin — I'd thought it was just a mole! He checked me for diabetes and sent me

→

COMMERCIAL DISTRIBUTION IS STRICTLY PROHIBITED • PRINTED FROM PRESSREADER • NOT FOR SALE • PERSONAL COPY

for blood tests, X-rays and other screenings.

When I came back, he said, "I think we found the answer." First he told me I had rheumatoid arthritis and Sjögren's, an autoimmune disease. Then he told me I also had lupus.

I had vaguely heard about lupus from one of my cousins but didn't really know anything about it. I asked the doctor so many questions, and he finally showed me a booklet describing the disease. At the bottom it said, *There is no cure.* I said, "We need to do these tests again! I have a child to raise; I don't have time for lupus!" But finally I asked, "What can we do?" He told me I needed to take my medicine and make sure I washed my hands and remained careful during cold and flu season because lupus would make me more susceptible to infections. He also encouraged me to talk to a therapist, which really helped.

A new life with new challenges

The doctor explained that I had a type of lupus affecting the skin, which was why I had all those keloids I'd thought were moles. It also explained why I had psoriasis on my scalp and eyebrows and why I would get a dark rash on my legs.

At first I was on a lot of medications, including steroids, but I didn't like all the side effects. When I moved to Florida, I found a doctor who helped me improve my health. I used to drink a six-pack of Pepsi in a day, and I gave that up. He encouraged me to walk, and now I walk up to five miles a day. I've also learned how to listen to my body. When my body tells me to rest, I don't care who needs what—I am going to lie down! I still take a few medications, but over time my doctor worked with me to replace many with supplements to help my immune system and provide additional nutrients.

I had to retire a few years ago because of my health, but I still volunteer at a school and as an ambassador for the Lupus Foundation of America. I'm 56 now, and I feel much better than I did at 46. I learned that you have to manage not only your physical health but your spiritual, social and emotional health as well. When everything is in balance, you're having a good day.

—*as told to Marisa Cohen*





Matches: Yaroslav Danylchenko/Stocksy—stock.adobe.com. Smith-Henry: Susan Eason Photography.

PRINTED FROM PRESSREADER NOT FOR SALE PERSONAL COPY COMMERCIAL DISTRIBUTION IS STRICTLY PROHIBITED

WHEN INFLAMMATION STICKS AROUND

Unlike acute inflammation, chronic inflammation is when the system stays active even after there's no imminent danger.

The body can mistake its own tissues and cells for foreign invaders and sic its inner army on them, leading to cell damage, pain and other symptoms, or the immune system can be generally overactive, causing damage to tissues and organs. Chronic inflammation is also linked to autoimmune disease. Thankfully, we are learning more each day about how to prevent and control chronic inflammation. Here's the info you need to get back to having inflammation be your body's superhero instead of its villain.



What are the telltale signs of inflammation?

Acute inflammation is pretty easy to spot, but chronic inflammation is a little trickier to identify. Several blood tests can check for markers of inflammation, but they can't distinguish between when it's acute (say, from a virus) and when it's chronic. If you have one or more of the symptoms below, it may be due to chronic inflammation, which can linger for months or even years:

- **Fatigue**
- **Chest pain**
- **Achy muscles and joints**
- **Skin rash**
- **GI problems such as constipation and diarrhea**
- **Headaches**
- **Weight gain**

Inflammation can make you sick.

Not only are these symptoms no fun, but chronic inflammation can damage healthy cells and lead to long-term illnesses, which is why you're hearing so much about it. In fact, five of the 10 leading causes of death in the United States have been linked to chronic inflammation in one way or another, including Alzheimer's disease and other forms of dementia, various types of cancer, heart disease, stroke and type 2 diabetes. Chronic inflammation is also connected with allergies and asthma, acne, eczema, psoriasis and arthritis and is a major factor in autoimmune disorders such as multiple sclerosis, lupus and Sjögren's syndrome, which are more common in women (see three women's personal stories starting on page 75).

COMMERCIAL DISTRIBUTION IS STRICTLY PROHIBITED
PRINTED FROM PRESSREADER
NOT FOR SALE
PERSONAL COPY

STOP! THAT CAUSES INFLAMMATION!

Well, maybe — or maybe not. Because the term is not well understood, a lot of folks are making cuts from their diets that may or may not be necessary (and they may not recognize some of the true culprits). Below, the most common things that are said to cause inflammation, and whether they actually do.

Alcohol: YES
In addition to increasing intestinal inflammation, overdoing it on alcohol can disrupt gut bacteria, change brain structure and function, raise blood pressure and increase risk of stroke and heart disease. To play it safe, stick to no more than one alcoholic drink daily — that goes for both men and women.

Loneliness: YES
Alone time is important, but feeling lonely often may be bad for your health. Research has found that socially isolated people tend to have higher levels of markers of inflammation in their blood, and previous studies have connected loneliness with greater expression of pro-inflammatory genes. Cut your risk by staying in touch with people you care about and finding ways to interact with others — in person, not just on social media.

Dairy: NO
"Dairy is not a cause of inflammation in the body, and most people don't have to cut it out of their diets to reduce inflammation," says Rudolph Bedford, M.D., a gastroenterologist at Providence Saint John's Health Center in Santa Monica, CA. In fact, some studies suggest that foods like milk, cheese and yogurt may actually help reduce inflammation. One caveat: If you have an intolerance of or an allergy to dairy, it's possible that it could activate inflammatory responses in you that could range from rashes or hives to anaphylaxis.

Smoking: YES
One study comparing smokers with nonsmokers found that smoking was connected with increased blood levels of several different markers of inflammation. And cigarette smoke isn't the only issue — research during the California wildfires found that even for healthy people, inhaling wildfire smoke could lead to inflammation and risk of lung disease.

Tomatoes: NO
Foods in the nightshade family get a bad rap because they contain alkaloids, potentially toxic compounds that are likely there to help the plants ward off pests. "Inflammation may occur with extremely high doses of alkaloids, but the amount consumed through eating ripe and well-prepared tomatoes is safe for most people," says Emily Sullivan, R.D.N. In fact, research has shown that the lycopene in tomatoes may protect against inflammation.

Coffee: IT DEPENDS
Coffee contains antioxidants with anti-inflammatory properties; however, you can quash these benefits if you drink too much of the caffeinated kind or add lots of sugar or syrup. Drink choice also matters: Espresso and unfiltered coffee contain more diterpenes, which can raise levels of unhealthy fats, says Chrissy Arsenault, R.D.N. "To avoid this mild inflammatory effect, opt for filtered coffee," she suggests.

"My doctors thought it was just allergies."

INGRID HE, 38

When I was 23 and in law school, I came down with what I thought was the worst flu ever. I was hit by a wave of fatigue, and I had all the symptoms I usually get with a really bad cold or flu, including brain fog and aches and pains—except my nose wasn't running.

I assumed that whatever I had would go away in a few days, but it didn't, and it started to feel as if something was really wrong with me. After about a month, I went to my primary care physician and said, "It's so weird—I feel like I'm sick without being sick." Because I also had a sinus infection, my doctor referred me to an ENT, who said it was probably seasonal allergies. Next I saw an allergist, who discovered that I was allergic



to seemingly everything (I hadn't had any allergy issues before).

I started taking allergy meds and using steroid nasal sprays. They helped a little with the allergies but didn't do anything for my profound fatigue. My family and I thought my symptoms were too severe to be just allergies. I also noticed that my eyes were dry a lot of the time—I couldn't even wear contact lenses because they would sometimes pop out.

Getting by, one day at a time

As my symptoms continued, I worried that I was going to lose my friends because I had to cancel plans so often. My grades started to drop because I was so fatigued—some mornings I couldn't even get out of bed. When I had finals, I would drink a crazy amount of coffee and jump around trying to wake my brain up.

I had a lot of anxiety about how my symptoms were affecting my life, and for a while everyone was telling me I was depressed, so I thought, *Maybe it is just in my head.* I would force myself to go to social events, and I would be like a zombie because all my energy was being taken up by just trying to stand there. Eventually I graduated and got a job, but all I could do was work at my desk, then come home, sit on the couch and try to recuperate.

Over the next few years, I saw around 10 doctors, including a psychiatrist, and had surgery to open up the airways in my sinuses. I also had recurrent yeast infections and severe stomach pain. But it wasn't until I told my doctor that my joints were hurting that she ordered a blood test, and it came back positive for autoimmune disease. She referred me to a rheumatologist, who ran more blood tests. After five years and countless wrong turns, he was the one who diagnosed me with Sjögren's syndrome, an autoimmune condition that is mostly known for causing dry eyes and dry mouth.

More than meets the eye

I discovered that Sjögren's can involve much more than just dry eyes. I started researching it online, and I found that the tennis champion Venus Williams also had it—she had a lot of the same symptoms as I did and had needed to take a break from tennis because she was so fatigued all the time.

It was really hard for me to find a Sjögren's specialist, so I started getting a lot of my info from online patient forums. I learned that a lot of people who had similar symptoms took prednisone, a corticosteroid, to suppress their immune systems when things got really bad. My doctor agreed to let me try that, but because prednisone has a lot of bad side effects, I take it only when I have a really serious flare. I'm also taking a low dose of the painkiller naltrexone, which has been reported to be effective in some patients with autoimmune diseases.

With Sjögren's, so many doctors only know about the dry eyes and dry mouth—but there can be a whole range of different symptoms, so you really have to push to get a correct diagnosis.

I'm 38 now, and I'm married and working for a nonprofit. I've learned how to track my symptoms so I can anticipate when I'm going to be sick. Things have gotten easier as I've built a good support system of family and friends who are understanding of my condition. With time, I've also become more experienced in managing my care and advocating for myself (I even started a blog, sjogrensdiary.com). And as I've learned more about my disease and connected with more patient communities online, I've felt less alone and more understood. *—as told to M.C.*

Flames: Getty Images. He: Dillon Prefer.

https://www.pressreader.com/usa/good-housekeeping-usa/20240301/page/81 1/1



*While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of heart disease.



PUTTING OUT **THE FIRE**

While no surefire cures yet exist for systemic inflammation, there are several things you can do every day to turn down the heat.

Practice stress relief. We know that stress can kick off or worsen depression, dementia and cancer through inflammation, so find a stress-relief method that works for you and practice it every day. Try meditating, taking breaks from social media, relaxing in a warm bath or playing with a furry friend.

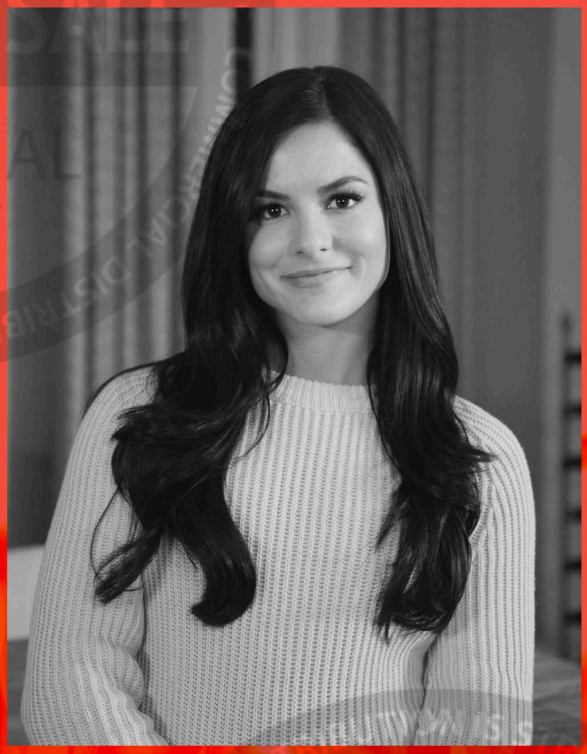
Mind what you eat. Certain foods can make inflammation worse; one way to find out what triggers your symptoms is to try an elimination diet. Work with a nutritionist to eliminate potentially problematic foods such as red and processed meat, sugar and fried foods for three weeks before slowly adding them back if your body tolerates them.

Get moving. Choose an activity you enjoy—walking, dancing, strength training, cycling—and do it a few times a week. Studies show that exercise helps decrease muscle damage from chronic inflammation. People of all ages should aim for at least 150 total minutes of exercise weekly.

Spice it up. For a delicious way to fight inflammation, cook with turmeric, the yellow spice that helps give curries their color and flavor—it may help with inflammatory bowel disease and arthritis. Try to get around 500 mg to 1,000 mg daily. You can add the spice to smoothies, curries or eggs; combine it with black pepper when possible. If you prefer the taste of ginger in your food, the spicy root also has anti-inflammatory properties. (See page 86 for more anti-inflammatory foods.)

Progress on Autoimmune Inflammation

While the treatment for acute inflammation often involves nothing more than resting, the chronic inflammation that comes with autoimmune illnesses means taking another tack. For decades the answer has been steroids, which are "the best drugs and the worst drugs," says Michael Kaplan, M.D., a rheumatologist at Mount Sinai Hospital in New York City. Steroids work well and fast but have numerous serious side effects, he explains. Biologic drugs such as Humira, Remicade and Enbrel have been game changers; they stop the action of a substance that tells other cells to ramp up inflammation, which reduces symptoms such as joint pain and can even stop the joint damage in people with rheumatoid arthritis. Newer drugs go after various mechanisms involved in creating unwanted inflammation. "This is a very exciting time," says Zachary Wallace, M.D., a rheumatologist at Massachusetts General Hospital in Boston. "There are a lot of new therapies on the horizon." —*Meryl Davids Landau*



"Even when my legs were numb, I kept dancing."

COURTNEY ANN PLATT, 35

Some time ago, while I was performing in arenas across America as an all-star with the *So You Think You Can Dance* national tour, things started to feel off. At 23, I was exhausted all the time. The running joke was that the other dancers would always say to me, "Good night, Grandma!" because as soon as we got on the bus I was out. Other symptoms came on gradually—I felt numbness in my legs, and when I put my chin on my chest I would feel this crazy electrical sensation, like shocks running down my spine. At first I thought I had injured my back, because I'd read that numbness could come from that kind of injury.

I definitely knew something was wrong, but as a professional dancer you just learn to power through. Even though I sometimes couldn't feel my legs, I could still move them, so I kept dancing.

I really believed it was a mind-over-matter thing, and I wonder now: If I'd known then what was really happening, would I have been able to

Burned match and flames: Getty Images. Platt: MS In Harmony via Eastward Films.

COMMERCIAL DISTRIBUTION IS STRICTLY PROHIBITED • PRINTED FROM PRESSREADER • NOT FOR SALE • PERSONAL COPY





keep going? Even while I was experiencing all these strange symptoms, I finished out the 40-city tour, doing 10 dances a night, six nights a week!

Getting tested

My symptoms calmed down after a few months. After I finished up a few other dance jobs almost a year later, I finally went to my doctor to get checked out. He sent me to a neurologist in New York City who ordered an MRI, which showed lesions on my brain and plaque on my spinal cord. It turned out that the numbness, tingling, fatigue and brain fog were symptoms of relapsing-remitting multiple sclerosis.

The diagnosis wasn't a complete shock. My grandmother, who passed away in 2020, had multiple sclerosis, though it wasn't diagnosed until she was around 60 because she was very old school and never liked to go to the doctor. When I first started experiencing my own symptoms, there was a voice in the back of my mind saying, *Could this be the same thing?*

The first thing I asked my doctor when he told me I had MS was "What does this mean for my dancing?" He said the best thing for me to do was keep moving and keep dancing—and that was music to my ears. I was worried about my future, but in a weird way I was also relieved that I finally had some clarity. A lot of people, like my grandmother, go undiagnosed for a really long time.

My life now

Working with my team of doctors, I follow a plan that includes taking medication, exercising regularly and eating healthily. Thankfully, my symptoms are in remission; the biggest issue for me right now is fatigue, and I also feel brain fog when I'm really tired.

Since my diagnosis, so many great things have happened in my life. I met and married my husband, Jonah, and I have two kids, who really keep me on my toes. I've kept up my dance career, appearing on VH1's *Hit the Floor* and *Grease Live!* as well as teaching fitness, but I definitely have to be more careful about not overdoing things—my husband jokes that I used to say yes to everything and now I'm a "no" person. But I have to do what's right for me as a mother, a wife and a dancer. I carefully plan out my activities now so I can rest between them.

One thing that has become really important to me is working with MS In Harmony. I appear in videos on msinharmony.com, doing voice and movement exercises led by board-certified music therapists that are designed to help people with multiple sclerosis manage their symptoms. Music has always been a huge part of my life, but I'd never used it this way before, and it's so unique and special. I think it's so important to keep going and not let MS define who you are. It's such a powerful thing to learn about your illness and connect with others who are going through something similar. I talk to newly diagnosed people all the time, and I always tell them they're going to be OK. MS is not the end; it's just a new normal.—*as told to M.C.*

FOODS THAT FIGHT INFLAMMATION



STEFANI SASSOS, M.S., R.D.N., C.D.N.
GH NUTRITION DIRECTOR

Inflammation is about more than your diet, but "what we eat plays a major role," says my friend and fellow dietitian Frances Largeman-Roth, R.D.N., author of the new book *Everyday Snack Tray*, a go-to guide to creating colorful, flavorful, nutritionally diverse boards and trays for every occasion.

Largeman-Roth's clients often tap her for help with inflammation. Her main message, whether you are snacking or sitting down for a meal: Eat more fresh, whole foods. "Foods that include high amounts of plant substances, known as phytochemicals, can help fight inflammation and should be eaten regularly," Largeman-Roth notes.

Eating more whole foods will hopefully mean that processed food, added sugars (as opposed to ones that are in foods naturally), refined carbs and saturated and trans fats will get crowded out, as these can contribute to the problem, says Largeman-Roth. "It's also smart to limit sodium to the recommended 2,300 mg per day, since high blood pressure has also been linked to inflammation," she adds.

As for how you cook, opt for steaming, baking or stir-frying over grilling or frying, she says.

Overall, an anti-inflammatory diet emphasizes foods that can naturally help reduce inflammation, including a wide assortment of produce, unsaturated fats, fatty fish, minimally refined whole grains, herbs and spices.



Fruits and vegetables: Getty Images.

Your Anti-Inflammatory Grocery List

Here, some staples that should help bring down the heat.

- -Avocados
- -Bell peppers
- -Berries
- -Broccoli
- -Cherries
- -Dark chocolate
- -Dark leafy greens
- -Extra virgin olive oil
- -Fatty fish
- -Fresh herbs
- -Garlic
- -Green tea
- -Mushrooms
- -Nuts (almonds, walnuts)
- -Onions
- -Seeds (chia seeds, flaxseeds, hemp seeds)
- -Spices (turmeric, ginger, cinnamon)
- -Tomatoes

Limit these if you're trying to reduce inflammation:

- -Alcohol
- -Fatty cuts of red meat
- -Fried and greasy foods
- -Processed meats (bacon, hot dogs)
- -Sugary beverages (soda, fruit juice, energy drinks)
- -Ultra-processed carbohydrates and sweets

COMMERCIAL DISTRIBUTION IS STRICTLY PROHIBITED • PRINTED FROM PRESSREADER • NOT FOR SALE • PERSONAL COPY



A FRESH TAKE
For healthy, colorful and delicious inspiration, check out Largeman-Roth's new book, *Everyday Snack Tray* ($30).

Make a Fight-Inflammation Snack Tray

No matter what the theme or occasion, Largeman-Roth is big on balance when it comes to designing her trays. She advises always including a high-fiber carb (whole-grain bread, crackers, grains), lean protein (meat, seafood, cheese, beans, nuts and seeds) and some healthy fat (guacamole, olive oil, nuts or nut butter) as well as fresh fruits and vegetables to help brighten the tray and provide important nutrients. Flavorful and fun additions like whole-grain mustard, honey, jam and pesto are good for spreading and as dips. For an anti-inflammatory special, try this mix from Largeman-Roth:

Pomegranate Arils. These juicy seeds are rich in polyphenol antioxidants, which help fight free radicals that can cause cell damage. Enjoy them on their own or use them as a vibrant topping.

Pistachios. Research has shown that pistachios have very high antioxidant capacities. They are also a complete protein and contain all nine essential amino acids.

Chickpeas. Packed with plant protein and fiber, chickpeas are a source of anti-inflammatory polyphenols, plant compounds that fight inflammation in many ways, including increasing the activity of antioxidant enzymes. Try whipping them into a delicious hummus.

Turmeric. Unlock its power as an anti-inflammatory by pairing it with something with fat, such as olive oil or whole-milk yogurt, as well as black pepper.

Cherries. Studies have found that both the sweet and the tart varieties help prevent or decrease oxidative stress. Cherries provide anthocyanins, which have powerful anti-inflammatory benefits. When they're not in season, try them dried, solo or in dark chocolate, for an antioxidant-packed sweet treat.

Snack tray: Mike Garten; food styling by Tina Martinez; prop styling by Lis Engelhart.