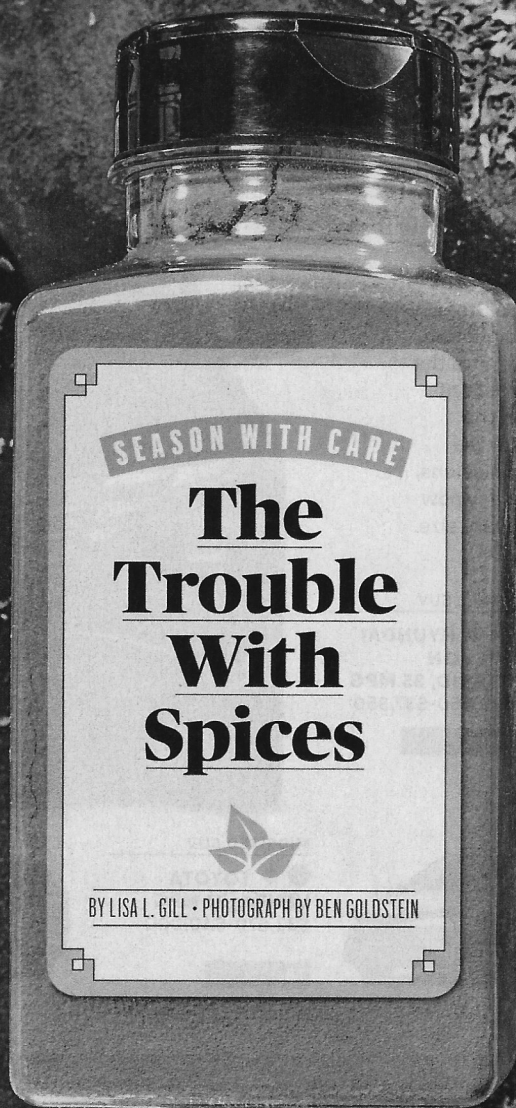


CR tested for heavy metals in 15 herbs and spices, from basil and black pepper to saffron and turmeric.



CR found lead, arsenic, and cadmium in popular brands of herbs and spices. Here's how to stay safe.



SPICE ISLANDS
ITALY
BASIL
PREPARED

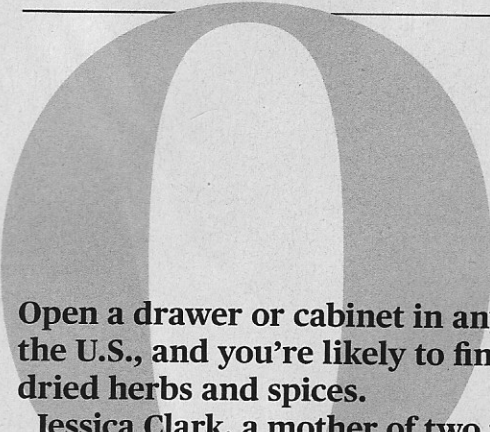
Tone's
GROUND
GINGER

CROWN
THYME

GROUND
Cinnamon

USE
PREPARED

Almost a third of the 126 products CR tested had levels of arsenic, cadmium, and lead combined that were high enough to raise health concerns.



Open a drawer or cabinet in any kitchen in the U.S., and you're likely to find several jars of dried herbs and spices.

Jessica Clark, a mother of two from Lincoln, Neb., says she uses them so often that she buys in bulk and mixes her own special blends. Erica Burger of Carmel, Ind., says she became “hooked” on a 21-spice blend—so much so that she now uses it in all sorts of dishes. “This is so flavorful, I use less salt in general,” she says. And Joey Davis, who grew up in San Diego, “where Mexican food is on every corner,” and whose Jamaican wife “puts habanero in everything, including cucumber salad,” says that in his home, “you can’t imagine any dish without spices and herbs.”

For many of us, spices play a large role in our cooking and in our family’s lives. A recipe may call for just a pinch or three of cumin, cayenne, and garlic powder, but what would your grandmother’s arroz con pollo be without them? And what about your secret Simon & Garfunkel fish rub—you know, the one with parsley, sage, rosemary, and thyme?

Yes, those seasonings really can add spice to our lives, filling our kitchens with tempting aromas and creating memories of people and places linked to special meals. But along with the flavor and memories, herbs and spices could also add something less savory to your diet: potentially dangerous heavy metals.

That’s according to Consumer Reports’ tests of 15 types of dried herbs and spices used in a variety of cuisines. We looked at 126 individual products from national and private-label brands, such as Great Value (Walmart), La Flor, McCormick, Penzeys, Spice Islands, and Trader Joe’s.

Roughly one-third of the tested products, 40 in total, had high enough levels of arsenic, lead, and cadmium combined, on average, to pose a health concern for children when regularly consumed in typical serving sizes. Most raised concern for adults, too.

For two herbs, thyme and oregano, all the products we tested had levels that CR experts say are concerning.

In 31 products, levels of lead were so high that they exceeded the maximum amount anyone should have in a day, according to CR’s experts.

Also troubling: There was no single predictor of which products contained higher levels of heavy metals—for example, brand name didn’t matter, and neither did “organic” or “packed in USA” claims.

The good news? Many products performed well in the tests. In seven of the 15 types of spices tested, all the brands had heavy metal levels below our thresholds for concern, and in most others, we found at least one brand that fit into our No Concern category.

And none of the tested spices were contaminated with salmonella bacteria, which may cause foodborne illness.

A single serving of any herb or spice CR tested is unlikely to cause harm, says James E. Rogers, PhD, director of food safety and testing at CR. Still, some products contain enough heavy metals, even in the small amounts used in cooking, to raise a concern when used regularly.

“When people think about heavy metals in their diet, if they do at all, it’s probably the lead in their drinking water or arsenic in their children’s fruit juices or cereals,” Rogers says. “But our tests show that dried herbs and spices can be a surprising, and worrisome, source for children and adults.”

THE THREAT OF HEAVY METALS

Frequent exposure to even small amounts of lead, arsenic, cadmium, and other heavy metals is dangerous, in part because it’s difficult for the human body to break them down or excrete them. And over time, exposure to those heavy metals can harm health. In children, it can affect brain development, increasing the risk for behavioral problems and lower IQ. In adults, it can contribute to central nervous system problems, reproductive problems, and hypertension, and can damage kidney and immune function.

“Since the risks are serious,” Rogers says, “it pays to limit your intake of heavy metals as much as possible.”

Heavy metals can show up in food if the water or soil where food is grown contains them naturally or is contaminated because of pesticides or industrial uses, says Tunde Akinleye, a CR chemist who oversaw the testing. Heavy metals may also get into food, including spices, during manufacturing—from processing equipment or packaging, for example.

FOOD STYLING: PREVIOUS SPREAD: JAMIE KIMM; PROP STYLING: MIAKO KATCHO

Laura Shumow, executive director of the American Spice Trade Association, says it's almost impossible to rid spices of all heavy metals because of "the unavoidable presence in the environments where they are grown." She also says the amount of heavy metals absorbed from the soil, and the part of the plant where they can end up, differs from plant to plant. The trade group offers spice companies guidance on how to limit contaminants that they can implement with their suppliers.

Shumow says that according to a recent risk analysis by the ASTA, spices make up less than 0.1 percent of dietary lead exposure in children ages 1 to 6. And even for adults, she says, the ASTA believes the risk is low "in large part because spices are a very small component of the diet."

But CR's data underscore a broader problem. "People reach for the herbs and spices in their kitchens multiple times a day," Akinleye says. And for certain spices, just one serving— $\frac{3}{4}$ teaspoon or more—per day leaves little room for heavy metal exposure from other sources. For example, CR's previous testing found that some brands of fruit juice, baby food, and rice contain troubling amounts of heavy metals.

And smaller amounts of certain spices could be a concern if they are combined with others in a recipe. For example, a dish that has just $\frac{1}{4}$ teaspoon each of Great Value (Walmart) Chili Powder, Trader Joe's Organic Cumin, and La Flor Oregano per serving would contain enough arsenic, cadmium, and lead to pose a concern.

Other research also suggests that spices can contribute to heavy metal exposure. For instance, a 2018 study in *Morbidity and Mortality Weekly Report* found high lead levels in 22 percent of food samples—mostly spices and herbal remedies—taken from homes of children with lead poisoning in North Carolina.

[CONTINUED ON PAGE 44]

IS TURMERIC GOOD FOR YOU?

Almost half the turmeric products CR tested had concerning levels of heavy metals.

BRIGHT YELLOW TURMERIC is a staple in Asian, Caribbean, Indian, and Middle Eastern dishes, and for hundreds of years, it has been prized for its health properties. Thanks to its healing reputation, in recent years the number of products that contain this spice—from drinks to cereals to dietary supplements—has increased.

With its rise in popularity comes concern about heavy metals. Of the 126 products in CR's tests, La Flor Turmeric stood out because it raised the highest concern from arsenic, cadmium, and lead combined. (La Flor did not return repeated requests for comment.) Three other turmeric products CR tested fell into our Some Concern category.

"People taking turmeric for health reasons may use much greater amounts than people who use it when cooking," says James E. Rogers, PhD, director of food safety and testing at CR. "And the more of any heavy metal you are exposed to, from any source, the greater your risk."

WHAT DOES THE SCIENCE SAY?

People have long turned to turmeric to treat a variety of ills, especially pain from inflammation. And lab studies suggest that curcumin—thought to be turmeric's active ingredient—does act against inflammatory cells. But it is less clear whether that translates to benefits in people. In a 2019

study, curcumin was as effective as an anti-inflammatory pain reliever for knee osteoarthritis. But neither treatment offered much relief. And an earlier study of more than 600 people found no evidence that curcumin pills eased inflammation compared with a placebo.

IS IT SAFE TO COOK WITH?

Occasional use of turmeric with heavy metal levels high enough to raise a concern is unlikely to pose much danger. But it is better to use a product from our tests that had very low levels, Rogers says, especially if you regularly cook with turmeric or use it in large amounts for potential health benefits.

WHAT ABOUT SUPPLEMENTS?

Previous testing by CR found that supplements—including turmeric and curcumin products—are sometimes high in lead or bacteria. And unlike with drugs, the Food and Drug Administration does not verify that supplements contain what their labels say they do. So careful shopping is key. Look for a seal from ConsumerLab.com, NSF International, UL, or U.S. Pharmacopeia (USP). Such a seal doesn't guarantee that a product is safe or that it does what it's claimed to do, but it offers some assurance that you're getting what's on the label.

CR'S SPICE TEST RESULTS

CONSUMER REPORTS tested 126 herbs and spices from 38 brands for arsenic, cadmium, and lead. (We did not test spices that tend to be used in baking, such as cinnamon and nutmeg.) We tested two or three samples from different lots of each product. Our findings are a spot check of the market and cannot be used to draw definitive conclusions about brands. The products are organized alphabetically by type. Within each group, the products are listed according to the degree of concern. Regularly consuming $\frac{3}{4}$ teaspoon or more daily of a product in one of the concerning categories could, over time, pose a health risk to children as a result of the combined levels of the three heavy metals. Unless noted, they could also pose a risk to adults. The more red boxes next to a product, the higher the concern.

NO CONCERN
 SOME CONCERN
 MODERATE CONCERN
 HIGH CONCERN

► BASIL

Simply Organic Basil	<input checked="" type="checkbox"/>
365 Whole Foods Market Basil*	<input type="checkbox"/>
Great Value (Walmart) Basil Leaves	<input type="checkbox"/>
McCormick Culinary Ground Basil (Albahaca Molida)	<input type="checkbox"/>
Sausage Maker Ground Basil	<input type="checkbox"/>
Litehouse Freeze Dried Basil	<input type="checkbox"/>
Morton & Bassett Basil*	<input type="checkbox"/>
Spice Islands Sweet Basil	<input type="checkbox"/>

► BLACK PEPPER

Tone's Ground Black Pepper	<input checked="" type="checkbox"/>
El Guapo Black Pepper Ground (Pimienta Negra Molida)	<input checked="" type="checkbox"/>
Badia Ground Black Pepper (Pimienta Negra Molida)	<input checked="" type="checkbox"/>
Casablanca Ground Black Pepper (Pimienta Negra)	<input checked="" type="checkbox"/>
Trader Joe's Organic Ground Black Pepper	<input checked="" type="checkbox"/>
Kirkland Signature (Costco) Fine Ground Black Pepper	<input checked="" type="checkbox"/>
Simply Organic Black Pepper	<input checked="" type="checkbox"/>

► BLACK PEPPER *continued*

Penzeys Spices Tellicherry Black Pepper Fine Shaker Grind	<input checked="" type="checkbox"/>
Great Value (Walmart) Ground Black Pepper	<input checked="" type="checkbox"/>
McCormick Pure Ground Black Pepper	<input checked="" type="checkbox"/>

► CHILI POWDER

Morton & Bassett Chili Powder	<input checked="" type="checkbox"/>
Spice Islands Chili Powder	<input checked="" type="checkbox"/>
Simply Organic Chili Powder	<input checked="" type="checkbox"/>
Badia Polvo de Chili Powder	<input checked="" type="checkbox"/>
Swad Chilli Powder	<input checked="" type="checkbox"/>
Good & Gather (Target) Chili Powder	<input checked="" type="checkbox"/>
Gebhardt Chili Powder	<input checked="" type="checkbox"/>
El Guapo Ground California Chili (Chile California Molido)	<input checked="" type="checkbox"/>
McCormick Dark Chili Powder	<input checked="" type="checkbox"/>
Great Value (Walmart) Chili Powder*	<input type="checkbox"/>

► CORIANDER

Simply Organic Coriander	<input checked="" type="checkbox"/>
Happy Belly (Amazon) Ground Coriander	<input checked="" type="checkbox"/>

► CORIANDER *continued*

Badia Ground Coriander (Culantro Molido)	<input checked="" type="checkbox"/>
Great Value (Walmart) Organic Ground Coriander	<input checked="" type="checkbox"/>
Spice Islands Ground Coriander	<input checked="" type="checkbox"/>
Morton & Bassett Ground Coriander	<input checked="" type="checkbox"/>
Laxmi Brand Coriander Powder	<input checked="" type="checkbox"/>
Penzeys Spices Coriander Ground	<input checked="" type="checkbox"/>

► CUMIN

Spice Islands Ground Cumin Seed	<input checked="" type="checkbox"/>
Simply Organic Ground Cumin	<input checked="" type="checkbox"/>
El Guapo Cumin (Comino)	<input checked="" type="checkbox"/>
Morton & Bassett Ground Cumin	<input checked="" type="checkbox"/>
McCormick Ground Cumin	<input checked="" type="checkbox"/>
365 Whole Foods Market Cumin Ground	<input checked="" type="checkbox"/>
Bolner's Fiesta Ground Comino (Cumin)*	<input type="checkbox"/>
Badia Ground Cumin (Comino Molido)*	<input type="checkbox"/>
Great Value (Walmart) Ground Cumin*	<input type="checkbox"/>
Trader Joe's Organic Ground Cumin	<input type="checkbox"/>

► **CURRY POWDER**

Simply Organic Curry Powder	✓
Great Value (Walmart) Organic Curry Powder	✓
Morton & Bassett Curry	✓
Spice Islands Curry Powder	✓
Jamaican Choice Jamaican Curry Powder	✓
McCormick Curry Powder	✓
Happy Belly (Amazon) Curry Powder	✓
Caribbean Rhythms Mild Curry Powder	✓
Badia Jamaican Style Curry Powder	✓

► **GARLIC POWDER**

365 Whole Foods Market Organic Garlic Powder	✓
Lawry's Casero Garlic Powder (Ajo en Polvo)	✓
McCormick Garlic Powder	✓
Simply Organic Garlic Powder	✓
Bolner's Fiesta Garlic Powder	✓
Kirkland Signature (Costco) Granulated California Garlic	✓
Great Value (Walmart) Granulated Garlic	✓
La Flor Garlic Powder (Ajo en Polvo)	✓
Badia Garlic Powder (Ajo en Polvo)	✓
Spice Supreme Garlic Powder	✓

► **GINGER**

Simply Organic Ginger	✓
365 Whole Foods Market Ground Ginger	■
Great Value (Walmart) Organic Ground Ginger	■
La Flor Ground Ginger (Jenjibre)	■
Tone's Ground Ginger	■
Badia Ground Ginger (Jengibre Molido)	■
Spice Islands Ground Ginger	■
Morton & Bassett Ground Ginger	■
McCormick Ground Ginger	■

► **OREGANO**

Simply Organic Oregano	■
McCormick Ground Oregano	■
Penzeys Spices Oregano Turkish	■
Spice Islands Oregano	■
Badia Ground Oregano (Molido)	■
Sadaf Oregano Leaves (Origan)	■
La Flor Ground Oregano	■ ■ ■

► **PAPRIKA**

Morton & Bassett Paprika	✓
Simply Organic Paprika	✓
Spice Islands Paprika	✓
365 Whole Foods Market Paprika	✓
Great Value (Walmart) Organic Paprika*	■
Badia Paprika (Pimenton)*	■
Pride of Szeged Sweet Hungarian Style Paprika	■
McCormick Paprika	■

► **SAFFRON**

Pacific Plaza Imports Full Thread Spanish Saffron	✓
Krokos Kozanis Organic Greek Red Saffron in Filaments	✓
Vigo Imported Saffron	✓
Badia Pure Selected Saffron (Azafran)	✓
McCormick Gourmet All Natural Spanish Saffron	✓
Sadaf Pure, Premium Saffron Thread	✓

► **SESAME SEED**

Sincerely Nuts Sesame Hulled	✓
Woodstock Organic Sesame Tahini Unsalted	✓
Al Wadi Al Akhdar Tahina 100% Ground Sesame	✓
Grain Brain Organic Hulled Sesame Seeds	✓
Bob's Red Mill Premium Hulled White Sesame Seeds	✓
Penzeys Spices Sesame Seeds White Hulled	✓

► **SESAME SEED** *continued*

Roland Tahini Pure Ground Sesame Seed	✓
JFC Premium Roasted White Sesame Seed	✓
Sadaf Sesame Seed Raw	✓

► **THYME**

Spice Islands Ground Thyme	■
Morton & Bassett Ground Thyme	■
McCormick Ground Thyme	■
Tone's Ground Thyme	■ ■
Happy Belly (Amazon) Ground Thyme	■ ■ ■ ■

► **TURMERIC**

Laxmi Brand Turmeric Powder	✓
Spice Islands Turmeric	✓
Sadaf Turmeric Powder (Curcuma)	✓
Simply Organic Turmeric	✓
Badia Ground Turmeric (Curcuma Molida)	✓
Kirkland Signature (Costco) Ground Turmeric	■
Morton & Bassett Turmeric	■
McCormick Ground Turmeric	■
La Flor Ground Turmeric	■ ■ ■

► **WHITE PEPPER**

Great Value (Walmart) Organic Ground White Pepper	✓
Penzeys Spices White Pepper Indonesia Fine Ground	✓
Badia Ground White (Pepper Pimienta Blanca Molida)	✓
Morton & Bassett Ground White Pepper	✓
Spice Islands Ground White Pepper	✓
Sadaf Ground White Pepper (Poivre Blanc Moulu)	✓
McCormick Ground White Pepper	✓
La Flor White Pepper	✓

*Did not reach threshold for posing concern to adults.

[CONTINUED FROM PAGE 41]

And a 2010 study linked a case of lead poisoning in a 12-month-old Massachusetts boy in part to turmeric used by the family. Five similar cases were later discovered in Arizona, California, Colorado, Connecticut, and New York. And more than a dozen turmeric products have been recalled since 2011.

CR's tests, however, demonstrate that it is possible for spice companies to limit heavy metals in their products. "About two-thirds of the spices we tested did not have concerning levels of heavy metals," Akinleye says. "So we know spices don't have to have worrisome amounts of lead or arsenic or any other heavy metal."

SPICES GROWN ABROAD

The Food and Drug Administration is responsible for the safety of spices. The agency hasn't set limits on heavy metals in food, except in a few cases, such as arsenic in infant rice cereal and lead in candy. But spice companies are required to periodically conduct a food safety analysis, which includes controlling chemical hazards such as heavy metals, says Brian Ronholm, director of food policy at CR.

"Heavy metal content testing is part of a wider risk assessment process the FDA may undertake if it determines that sample collection and analysis is warranted for a specific shipment," an agency spokesperson said.

Importantly, the FDA can also test spices shipped to the U.S. and block products if it identifies a health risk. That's important because most spices sold in the U.S. are grown abroad—in countries such as China, India, and Vietnam—and some research suggests that oversight of food production there is sometimes less rigorous.

However, while you might want to know where the spices you use are

grown, that's not easy to determine. CR's food safety experts found many labeled as "packed in USA," but no other information was listed. Other products listed multiple countries, which suggests the final product was a mixture of spices from more than one source.

Currently, about two dozen spice companies from 11 countries are subject

to import alerts for lead contamination, which signal to regulators that they can detain those products. But that represents a fraction of the herbs and spices shipped to the U.S. In addition, the limited testing the FDA has done on spices has been focused on harmful bacteria, such as salmonella, not heavy metals, Ronholm says.

THE RISKY SPICE RACK

Here are the 40 products that had concerning levels of arsenic, cadmium, and lead combined.

Organic herbs and spices were as likely as conventional ones to have higher levels of heavy metals.

All the thyme and oregano products tested had concerning levels of heavy metals.





questions—Al Wadi Al Akhdar, Costco, Bolner's Fiesta, Gebhardt, Litehouse, McCormick, Roland Foods, Spice Islands, Target, and Whole Foods—a few said they require their suppliers to have a program for controlling or testing for heavy metals. But only three—Al Wadi Al Akhdar, Bolner's Fiesta, and McCormick—specifically said they test products in their manufacturing plants for heavy metals.

Costco, Litehouse, and McCormick said their goal is to have heavy metals as close to zero as possible, but no company provided the thresholds they consider acceptable.

For years, California has required that products that exceed limits for substances known to cause cancer or reproductive harm, including heavy metals, carry a warning label. But New York is currently the only state to have enacted limits for heavy metals in spices.

It set them after issuing recalls of more than 100 spices because of heavy metal contamination since 2016, says Jola Szubielski, a spokesperson for the New York State Department of Agriculture and Markets. Once enforcement begins, the state can force a recall of products with elevated levels of heavy metals.

SEASON SAFELY

While the risk of heavy metals in spices and herbs is real, limiting your risk doesn't mean dooming yourself to a life of bland food or giving up old family favorites. Follow these tips.

Choose products with the lowest levels of heavy metals. CR's tests found at least one product that fit in our No Concern category for every spice and herb we tested except oregano and thyme.

Focus on spices and herbs that are lower in heavy metals. These were black pepper, coriander, curry powder,

garlic powder, saffron, sesame seeds, and white pepper. That doesn't mean that every brand of these herbs and spices is low in heavy metals, because we didn't test them all. But it is easy to find low-risk versions of those spices.

Don't assume some brands are safer than others. CR's tests could not determine whether one brand was consistently better or worse than any other. And organic products did not have consistently lower levels than conventionally grown ones. While that might surprise some, CR's Ronholm says the USDA's organic standards don't include heavy metal testing.

Grow and dry your own. That might be a particularly good idea if you use a lot of basil, oregano, and thyme; in our tests all or almost all the brands tested were high in heavy metals. See "Your DIY Guide to Herbs and Spices," on page 46.

Think twice about bringing back spices from abroad. Heavy metal content can be much higher in those spices, according to other research. U.S. companies may buy the highest-quality spices to import, Ronholm says, which could leave lower-quality spices to be sold in the country of origin.

Consider your total potential exposure to heavy metals.

This is especially important if you have kids at home. Our tests are a reminder that you should take steps to limit your potential exposure from heavy metals from all sources.

That means not only choosing seasonings that pose little risk when you can but also, for example, testing your water for lead and arsenic and, if levels are high, installing a water filter. For details, go to CR.org/watertest1221.

And if you have young children at home, see CR's advice on choosing juices and infant cereals that are low in heavy metals at CR.org/fruitjuice1221 and CR.org/babyfood1221.

SELF-POLICING

The lack of regulation leaves much of the monitoring of heavy metal levels to spice companies. CR contacted all the ones with products in our tests to see how they limited heavy metals.

Of the companies that replied to our

YOUR DIY GUIDE TO HERBS AND SPICES

WHEN KAREN WASHINGTON, a food activist and farmer, recalls holiday meals with her family, one herb stands out: thyme. "What's a Thanksgiving turkey without thyme?" she asks. And even at other times of the year, it's the most common herb used in her kitchen, she says. But if you use a lot of thyme—or basil or oregano—and are concerned that most or all brands CR tested had high levels of heavy metals, don't worry—you don't have to skip them. Instead, Washington says, grow your own in your yard, on your patio or porch, or in a sunny spot inside. "No matter how small or how big, the fact that you can control even part of your food system by growing, nourishing, and harvesting something is a powerful act," says Washington, co-founder of the nonprofit organization Black Urban Growers and co-owner of Rise & Root Farm in Chester, N.Y. And if you want to dry those herbs for future use, she suggests this: Put them in a dry paper bag for several weeks. For more on how to grow and dry herbs, and store those you buy at the store, read on. —Lisa L. Gill and Tanya A. Christian



Grow Your Own

► Here's what you'll need to do, in addition to buying seeds or starter plants.

PICK A SUNNY, WARM SPOT

An indoor windowsill or a small outdoor space will do, as long as the location you choose gets at least 6 hours of sunlight each day. Too dark inside? Try a grow kit. These

often come with lights, plus some are hydroponic, meaning they require only water, not soil. If you can, keep the temperature at about 60° F to 70° F and you can grow indoors all year.

GET POTS WITH GOOD DRAINAGE

Standing water is a no-no for herbs—it promotes root rot. To encourage drainage, put a few rocks at the bottom of a pot that also has a hole in it, and raise it slightly on a saucer.

PRO TIP: Each type of herb should have its own pot (don't crowd the plants, though!) because needs may differ.

USE GOOD SOIL

If you want herbs that are free of heavy metals, you'll need soil free of them, too. If you're buying potting soil, look for a product that carries the OMRI Listed seal, which means it has been assessed for heavy metals by the Organic Materials Review Institute. If you are using your own dirt, consider testing it. You can buy a kit at many hardware

stores or online, though it may screen only for lead. Or contact your local agricultural cooperative extension office for advice on testing.

CHECK YOUR WATER

If you're not sure whether your water is free of heavy metals, you can test that, too. You can also consider using water that comes through a filter that has been certified to remove heavy metals. For more, see CR.org/watertest1221.

How to Store Your Spices

► CR food experts offer tips on keeping your spices fresh.

KEEP SPICES IN SMALL, AIRTIGHT CONTAINERS

Large containers or bulky bags invite air and moisture, which can affect the flavor or cause the spice to cake up, says CR nutritionist Amy Keating, RD.

STORE THEM IN COOL, DARK, DRY SPACES

Sunlight, heat, and moisture can diminish the flavor and aroma, says Sana Mujahid, PhD, manager of food safety research and testing at CR. So don't keep spices in a cabinet above the stove or near the dishwasher. And if you keep spices on your countertop? "Only do that if you use that dried spice often," she says.

DON'T REFRIGERATE OR FREEZE SPICES

Doing so won't extend their shelf life. In fact, chilling or freezing may make them spoil faster, Mujahid says.

DON'T SPRINKLE A SPICE DIRECTLY INTO A HOT DISH

"The steam could carry moisture into the container," Keating says. Transfer spice to a spoon or dish, then add it to the pot.

GIVE YOUR SPICES THE SNIFF TEST

Dried herbs and spices don't go bad in the sense that they become unsafe to eat. But the aroma and flavor fade

over time. In general, that means two to four years for whole spices, such as allspice, clove, and nutmeg, and two to three years for ground ones, like curry and ginger, according to the Department of Agriculture. But in some cases they can degrade faster. "If you can't smell the spice, regardless of how long you've had it, it's lacking in freshness," Keating says. "So it's probably time to throw it out."



Dry Your Own

► For our herb drying tests, a CR staffer tried an air fryer, a toaster oven, and a multi-cooker in her home kitchen. All are from CR's list of recommended products, and all have a dehydrate function. We used fresh basil, first pinching off the leaves from the stem, then rinsing and drying. In each case, we selected the dehydrate function on the device and, once warmed, placed a single layer of basil in it. Here's what you need to know about each.



AIR FRYER

PREHEAT 135° F

PLACE ON Crisper tray
DRY FOR 30 minutes

This was the fastest in our tests, but the fryer has a limited basket capacity, so it's best for small quantities.

MODEL TESTED

Gourmia GAF686, \$70



TOASTER OVEN

PREHEAT 125° F

PLACE ON Dehydration rack
DRY FOR 4 hours

This was the slowest of the methods we tried. But you can do a lot at once, so it is ideal for drying large amounts.

MODEL TESTED

Breville BOV900BSS, \$400



MULTI-COOKER

PREHEAT 125° F

PLACE ON Multi-cooker basket
DRY FOR 3 hours, 30 minutes

The device had limited space. To increase capacity, consider buying a multilayer stainless steel dehydrator rack that fits in the device.

MODEL TESTED

Instant Pot Duo Crisp, \$120