

HEALTH
ALERT

TICK PROTECTION: TOP REPELLENTS + ADVICE

The Hidden Risk in Bottled Water • Are Sunscreens Safe? • Indestructible Grills

JULY 2019

CR Consumer Reports®

REVIEWS & RATINGS

- Multi-Cookers
- Wireless Speakers
- Mowers
- Snack Crackers
- Ford Ranger

HOW TO SPOT HIDDEN FEES

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Whole Grain Bread Labels, Decoded



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What the Fee?!



“YOU GET what you pay for” is an age-old adage, but it doesn’t exactly ring true anymore. “You pay more than you expected to” is more apt today. With greater consolidation across industries, from banking to airlines to cable providers, we see both the prices we pay and the profits reaped by corporations rise as a result. We’re now experiencing an

unprecedented number of fees levied on us in unexpected ways. Hidden in the fine print, or disclosed just before—or even after—we make a purchase, these charges can exact an enormous toll.

In 2018 alone, the U.S. airline industry hauled in nearly \$4.9 billion in baggage fees, while American banks extracted just over \$11.5 billion in overdraft fees from their customers. And that’s before you get to the cable companies, rental cars, concert tickets, and everywhere else that our hard-earned dollars get siphoned off.

One of the most insidious things about the rise of the “hidden fee economy” is that it undermines our ability to make smart financial choices. How are we supposed to figure out whether we’re getting a fair deal when we’re left in the dark about how much a product or service will ultimately cost? How can we comparison shop with fewer and fewer options to choose from?

This month, we’re taking a closer look at where hidden fees dwell, offering you ways to spot, avoid, and challenge them across a wide range of purchases. We’re also working to eradicate them with our What the Fee?! campaign to raise consumer voices and to compel lawmakers and companies to embrace honest and transparent pricing. We’ve heard from thousands of people frustrated by these unexpected expenses and have shared their stories with lawmakers, encouraging them to ban the most egregious practices. If you’re fed up with fees, too, I want to invite you to join this campaign by sharing your story at WhatTheFee.com. Together, we can demand action to hold these companies to account.

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Calling for Safer Trucks

WHAT'S AT STAKE

When cars collide with big-rig trucks, they can become violently wedged beneath the larger vehicle—a phenomenon known as an “underride.” Though these collisions cause catastrophic damage to cars, they often fail to trigger standard safety features such as airbags—and, as a result, all too often lead to horrific deaths and debilitating injuries.

So-called underride guards for trucks are a low-tech upgrade that can prevent some of the worst carnage. These bumpers hang from tractor trailers, preventing cars from sliding underneath during a collision. Many trucks already have rear-facing underride guards, but safety advocates say the standards requiring them are not strong enough, and that side and front guards are necessary as well.

HOW CR HAS YOUR BACK

CR has long advocated for underride guards. In our August 2018 issue of the magazine, we reported on new technologies and policies aimed at reducing the risks of big rigs, and offered consumer advice for driving safely on the roads with trucks.

Now we’re endorsing a bill that would require underride guards on the sides and front of all large trucks. The bipartisan Stop Underrides Act would also update the outdated standards for rear-facing underride guards.

David Friedman, CR’s vice president of advocacy, says: “The technology is there—what’s missing is the will to put it to work. Passing this bill can change that.”

WHAT YOU CAN DO

Contact your congressional representatives and ask them to co-sponsor the Stop Underrides Act. And learn more about truck safety at [CR.org/trucksafety0719](https://cr.org/trucksafety0719).

Keeping Your Info Private

WHAT'S AT STAKE

A growing number of employers (including CR) are launching wellness programs to help workers lose weight, quit smoking, or otherwise improve their health. Wellness programs are promoted to employers as a way to lower their overall healthcare costs, which is one reason they often encourage employee participation with incentives like gift cards and health insurance discounts.

Many workers don’t realize that the health information they reveal through these programs—including their medical history; body mass index; pregnancy status; and smoking, drinking, eating, and exercise habits—may be inadequately protected. In some cases, researchers have found, the information can end

up in the hands of employers and insurance companies, and can even be sold to third parties. Making matters worse, it’s unclear whether wellness programs even deliver on their health promises.

HOW CR HAS YOUR BACK

CR is sponsoring a bill in the California Assembly, AB 648, which would improve privacy protections for people enrolled in wellness programs. Our advocates have met with state lawmakers and testified in support of the legislation. The bill has passed two committees with bipartisan support, and a third vote is slated for May. CR is also working with state legislators outside of California to develop and introduce similar bills in other states.

(CR’s own wellness program is in line with the policies for which we advocate.)

WHAT YOU CAN DO

We want to hear about your experience—whether, for example, you’ve felt

pressured to participate in your company’s program. To share your story and read more about wellness program privacy risks, go to [CR.org/wellness0719](https://cr.org/wellness0719).

Protecting an Open Internet

WHAT'S AT STAKE

Net neutrality is the idea that all information should flow freely over the internet on equal terms. Since the Federal Communications Commission repealed its 2015 net neutrality rules in 2017, there has been a push in state legislatures and the U.S. Congress to restore protections that prevent internet service providers (ISPs) from blocking, slowing, or giving preferential treatment to any web content.

The House of Representatives recently passed the Save the Internet Act, which would codify net neutrality rules into law and prevent the FCC from reclassifying broadband in the future to weaken the standards. And it would restore the FCC’s power to prevent future anti-competitive behavior by ISPs.

HOW CR HAS YOUR BACK

CR is a strong supporter of this legislation and has worked to reinstate net neutrality protections since 2017. Our advocates were at the Capitol when the bill was introduced and met with lawmakers to encourage them to pass it. Plus, almost 40,000 CR members emailed their representatives in support of the bill.

The legislation is now in the Senate, where it’s likely to face opposition. But last year the Senate passed a similar resolution to reverse the FCC’s repeal with bipartisan support. (That time, the effort stalled in the House.) We think now should be no different, and are calling on lawmakers on both sides of the aisle to back the bill.

WHAT YOU CAN DO

To tell your senators to restore net neutrality protections, go to [CR.org/netneutrality0719](https://cr.org/netneutrality0719).



Big-Rig Risks

CR is pushing for underride guards to minimize deaths and injuries to passengers in cars involved in crashes with trucks.



Our May article “**Mad About Robocalls?**” addressed the nearly 50 billion calls placed each year—and how you can fight back. Readers shared their outrageous anecdotes and smart tips. To join in, go to CR.org/robo0719.

YOUR ARTICLE about robocalls was helpful and informative, but as you note, thus far financial penalties for the perpetrators have proved to be ineffective. The examples you cited indicate that the perpetrators were often unable to pay the fine but are still walking around. It would seem that advocating imprisonment might prove to be a more effective deterrent.
—*Ira Keith Austin, Briarcliff Manor, NY*

IT SHOULD BE no surprise that robocalls are not going away. Every one of “A Rogues’ Gallery of Robocallers” was given a

fine, which in several cases was suspended due to inability to pay. Until it is made a criminal offense with prison time to operate or knowingly use the services of an illegal robocaller, not much will change.
—*James Stahl, Sarasota, FL*

SHORTLY AFTER YOUR article, my wife saw her father’s name and number on our landline caller ID. However, he died seven years ago. While he may have been calling from the hereafter, he did not leave a message. I will sign the FCC petition concerning spoofing and persistent robocallers.
—*Lincoln Noecker, Gilbertsville, PA*

I CALLED VERIZON the day I received my CR magazine and read your article. In five minutes, Verizon set up our phones to block those calls. Can’t wait to see if it works!
—*Judy Wolfe, Northport, FL*

THE ARTICLE WAS very informative, but I use a different technique with my iPhone. I turned on the Do Not Disturb feature, and next to “Allow Calls From,” I checked “No One.” I then checked “Edit” in each of my contacts and initiated Emergency Bypass for both the ringtone and text tone. This means that my phone sounds only when I get a call or text from a contact. While this does not eliminate robocalls, I don’t have to listen to them and I don’t concern myself with having to block individual phone numbers and/or pay for a service from my provider. Remember, however, that calls or texts that are in Emergency Bypass mode will sound even when the phone is muted or on vibrate.
—*John Post, South Windsor, CT*

IT SEEMS TO ME that the robocall epidemic could be easily stopped. A cost-neutral

solution for the carriers could be charging by the call and ending unlimited calling. The robocallers would be instantly out of business. The carriers could set the price so that they received the same revenue as today. With billions fewer calls, they wouldn’t need so much capacity, either. I’d sign up for that in a heartbeat.
—*Allan Cruickshanks, Mineral, TX*

THERE ARE ALWAYS WAYS around technology. I suggest requiring every telecom carrier to charge for every call made, with credit to their monthly bill. So if the mandatory charge is 50 cents, a person with a \$30 monthly bill would be allowed 60 calls, but every call after that would cost 50 cents. A robocaller making thousands of calls a day would soon be out of business.
—*Carl Hansen, Park Ridge, NJ*

ONE WEEKEND in December 2017, my mobile phone suddenly received perhaps 100 to 200 calls from random unknown numbers in various parts of the U.S. Some of the callers left messages to the effect that I had called *them* and hung up. Some were curious; some were angry. I came to realize that a scammer had spoofed my mobile number. I never had any way of knowing who set that up. But then many folks reported *my* number as a scammer, thus causing the cell service providers to add me to their “Suspected Spam” lists. Let’s hope the promised regulations and new technologies improve things for everybody. Thanks to CR for taking a strong position!
—*Greg Golden, Van Nuys, CA*

YOUR ARTICLE DOES a great job of explaining the reasons behind robocalls and the technological innovations that may help stop them. However, I also think that this article does not sufficiently emphasize the one weapon we all can use



WRITE

Go to CR.org/lettertoeditor to share your comments for publication.

ON CBD

If we truly intend to do everything possible to address the opioid epidemic, CBD must be fast-tracked for research supported by the Food and Drug Administration!

—Jeri Garcia, Philadelphia

in fighting this plague: Hang up! Don't interact with the caller. Don't push any buttons. Don't give any information. If everyone were to adopt a policy of hanging up, all these pests would be out of business in a short time, thus enabling us to live in peace with our telephones again.

—John Hannum, Cherry Hill, NJ

EDITOR'S NOTE Our petition to the Federal Communications Commission calling for better protection from intrusive robocalls has more than 200,000 signatures to date. To add your signature online, please go to [robocallspetition.CR.org](https://www.fcc.gov/robocallspetition). You can also tweet @FCC to tell the agency that you want phone companies to be required to stop unwanted robocalls; use the hashtag #EndRobocalls.

Car Safety Solutions

I ENJOYED THE ARTICLE "Can We Save More Lives?" (May 2019) but I wish there were more information on the crash test dummy of the future. It is my understanding that crash test dummies are built with male proportions, weight, and weight distribution. Having been female for nearly 70 years now, I can attest that seat belts do not adjust for a woman; put at their lowest height, they still cross my

body at uncomfortable places. I'm 5 feet, 6 inches tall.

—Deborah Wagner, Frederick, MD

EDITOR'S NOTE *Dummies of male, female, and child proportions are used in crash testing. But those dummies are not typically used for assessing seat comfort, belt fit, and controls. CR evaluates cars with that in mind—using a range of testers from 5-foot-tall women to 6-foot-3-inch men. We also advise consumers to look for a car with adjustable upper belt anchors, power seats, and tilt and telescope wheel adjustments.*

ACCORDING TO the Sleep and Neuroimaging Lab at the University of California, Berkeley, drowsy driving causes more crashes than alcohol- and drug-related crashes combined. Based on driving simulator studies, a person going to work at 7 a.m. and going out with friends until 2 a.m., consuming no alcohol, is as cognitively impaired to operate a vehicle as a legally drunk driver. The technology to detect drowsy driving is available and of moderate cost: gaze detection. If cars were equipped with technology that tracked the driver's eyes, that would address both the problem of drowsy driving and, as a bonus, detect distracted

driving as well. Implementing an alert system based on gaze detection could reduce crashes by an order of magnitude more than tweaking existing DUI laws.

—Dale Seng, Charlotte, NC

HANDS-FREE cell-phone use is no safer than holding the phone to your ear. Where your mind is, is more important. I'd rather see who is on their phone, so I can be extra aware of the car. Perhaps a light on the roof of the car could show everyone a phone is in use.

—Henry Bareiss, Rochester Hills, MI

I'M AMAZED at the growing number of drivers who let their dogs roam freely in the front seat—sitting on their lap, front paws perched on the frame of an open front window. This senseless act endangers not only other drivers but also the occupants in the distracted driver's vehicle, including their pet(s). Such careless disregard for the safety of others needs to be legally addressed, right along with cell-phone texting and the use of handheld devices in moving vehicles.

—Thomas Krieg, Tucson, AZ

I HAVE BEEN DRIVING semis for 34 years. The best advice is to look in your rearview mirror. If you can't see the whole front of the vehicle you are cutting off, you could get yourself in a pickle.

—Suzan Ellis, Renton, WA

CBD Concerns

I FOUND THE ARTICLE "CBD Goes Mainstream" in the May 2019 issue interesting. On page 50 you mentioned a less familiar risk of heavy and chronic use of marijuana: that of nausea and vomiting. I've been a nurse for 30 years, and have seen this result. The problem with nausea and vomiting from marijuana is that anti-nausea medications do not work on it. Hot showers or baths temporarily relieve

the symptom. There is even a billing code for nausea and vomiting caused by marijuana. With states going against federal law and allowing legalization, this is just going to get worse.

—Mat Wellnitz, R.N., Big Rapids, MI

I WAS PLEASED to see your article about CBD (cannabidiol). While you reported that people had been able to reduce or replace their opioid medications, you omitted one glaring problem. At many pain clinics, patients must agree that if they test positive for any illegal drugs, such as cocaine and marijuana, they will be dropped from any opioid pain-management protocol. It is absurd that there are next to no true scientific experiments because marijuana remains classified alongside heroin. If we truly intend to do everything possible to address the opioid epidemic, CBD must be fast-tracked for research supported by the Food and Drug Administration!

—Jeri Garcia, Philadelphia

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What We're Testing in Our Labs ...

In our 63 labs, we continually review and rate products. Here, timely picks for this month.

String Trimmers, Gas

WE TESTED: 19 models

WE TEST FOR: How quickly and neatly models trim grass, edge a vertical line along a walkway, and cut tall grass and weeds; overall handling; and ease of use.

ABOUT THE SCORES:

Median: 72

Range: 57-84

Easy-to-Handle Edger

Echo SRM-230
\$290



84
OVERALL
SCORE

Excellent Trimmer for Less

Homelite UT33650A
\$100



80
OVERALL
SCORE

Clean Sweep (curved)

Remington RM2510 Rustler
\$80



73
OVERALL
SCORE

String Trimmers, Battery

WE TESTED: 28 models

WE TEST FOR: How quickly and neatly models trim grass, edge a vertical line along a walkway, and cut tall grass and weeds; overall handling; and ease of use.

ABOUT THE SCORES:

Median: 67

Range: 34-87

A Cut Above

EGO ST1521S
\$230



87
OVERALL
SCORE

30-Minute Quick Charge

Echo CDST-58V2AH
\$230



84
OVERALL
SCORE

Nicely Priced

Kobalt (Lowe's) KST-130X-06
\$160



75
OVERALL
SCORE

Ask Our Experts

Are there any benefits to a string trimmer with a curved shaft instead of a straight one?



WHETHER OR NOT you should choose a straight- or curved-shaft string trimmer will probably depend on your height and what your yard is like. Straight trimmers, which make up a majority of the market, are often more comfortable for tall people, who can use them to get at low spots without bending down. “That’s especially good if you have a bad back,” notes Misha Kollontai, a CR tester. But we have found that a very good curved model, such as the Remington above, can provide better handling for shorter users because it’s easier to keep the head of the tool perpendicular to the ground. A curved shaft can also easily trim around or behind objects if your yard has obstacles and hard-to-reach spots.

ILLUSTRATION: SERGE BLOCH

For the latest ratings of these and other product categories, readers with a Digital or All-Access membership can go to [CR.org](https://www.crdigital.com).

Crackers

WE TESTED: 15 crackers

WE TEST FOR: Flavor and texture (evaluated by trained taste testers); nutrition per serving, including calories, fats, sugars, sodium, dietary fiber; and more.

ABOUT THE SCORES:

Median: 58
Range: 39-68

Healthy & Nutritious

Nabisco Triscuit Reduced Fat Crackers (7.5 oz.)
\$3

68
OVERALL
SCORE



Excellent Flavor

Back to Nature Multigrain Flax Seeded Flatbread Crackers (5.5 oz.)
\$3.80

67
OVERALL
SCORE



Gluten-Free

Crunchmaster Original Multi-Seed Crackers (4.5 oz.)
\$2.80

66
OVERALL
SCORE



Multi-Cookers

WE TESTED: 8 models

WE TEST FOR: How tender meat and vegetables are after slow-cooking stew and chili; how well a model sautés onions, cooks rice, and steams vegetables; and more.

ABOUT THE SCORES:

Median: 75
Range: 60-81

Slow-Cooker Supreme

Breville Fast Slow Pro 6 qt. BPR700BSS
\$250

81
OVERALL
SCORE



Air Fryer With Super Sautéing

Ninja Foodi OP302
\$230

79
OVERALL
SCORE



Fan Favorite for Less

Instant Pot DUO60 7-in-1 6 qt.
\$100

75
OVERALL
SCORE



Portable Wireless Speakers

WE TESTED: 65 models

WE TEST FOR: Quality of sound, how easy it is to set up a system and use the controls, and versatility, which evaluates the presence or absence of useful features.

ABOUT THE SCORES:

Median: 45
Range: 20-60

Very Versatile

JLab Audio Block Party
\$150

60
OVERALL
SCORE



Easy to Use & Long Battery Life

JBL Pulse 3 (water-resistant)
\$150

60
OVERALL
SCORE



Rockin' Price

Bose SoundLink Color II (water-resistant)
\$130

60
OVERALL
SCORE



Freezers

WE TESTED: 39 upright models

WE TEST FOR: Temperature uniformity; thermostat control; energy efficiency; noise; ease of use, which evaluates layout; controls and lighting; and more.

ABOUT THE SCORES:

Median: 74
Range: 27-87

Quietest Contender

Frigidaire Gallery FGVU21F8QF (73Hx34Wx31D)
\$1,170

84
OVERALL
SCORE



Petite, With Lower Energy Costs

GE FUF14DLRW (62Hx28Wx30D)
\$675

84
OVERALL
SCORE



Large Usable Capacity

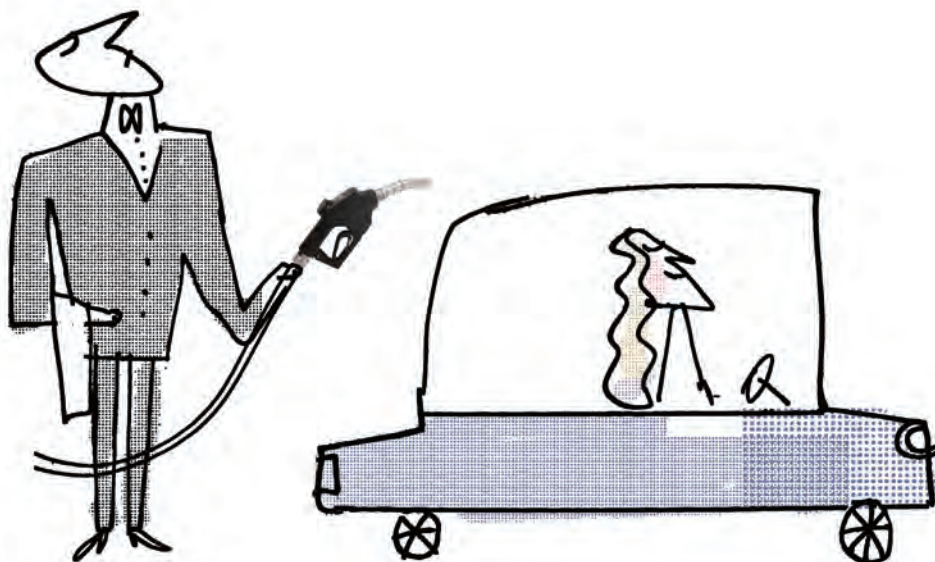
Kenmore 22042 (73Hx34Wx31D)
\$598

82
OVERALL
SCORE



Note: We rate different products according to different testing protocols. As a result, Overall Scores of one product category are not comparable with another.

COMING NEXT MONTH Cameras & More



What's up with this 'Top Tier' logo I see at gas stations?

The Environmental Protection Agency sets a minimum standard for the amount of detergent additives gas should contain. Top Tier gasoline—a voluntary industry designation—has additional additives that many carmakers feel today's increasingly sophisticated car engines need in order to combat carbon buildup and deposits on intake valves. These additives help prevent hesitation on acceleration, reduced fuel economy, and more, says CR's chief mechanic, John Ibbotson.

Top Tier gas costs about 3 cents more per gallon than ordinary gasoline, but a AAA study says those extra cents pay off: It keeps intake valves cleaner and increases the performance and longevity

of your car's engine.

Be mindful not to confuse Top Tier with octane levels. When a participating retailer sells Top Tier fuel, all of the octane grades from regular to premium gasoline and diesel adhere to the standards.

Many companies, such as Mobil, BP, and Shell, offer Top Tier gas, but some, such as Wawa, Pilot, and BJ's, don't. You can look for the Top Tier logo at stations, or check our list of retailers at [CR.org/gas0719](https://www.consumerreports.org/gas0719).

I've heard that CBD might ease my dog's anxiety during fireworks. Should I give it a try?

A growing crop of products infused with CBD (cannabidiol, a compound extracted from cannabis plants) is being marketed for pets to treat anxiety, arthritis, and seizures. There's limited research on CBD pet products, though CBD is generally thought to be safe for pets. Just be sure to watch out for any products that contain grapeseed oil and

xylitol—these might appear in human formulations but can be toxic for dogs and cats.

However, says Stephanie McGrath, D.V.M., assistant professor of neurology at Colorado State University's College of Veterinary Medicine and Biomedical Sciences, "I'm not totally convinced of its effectiveness." Anecdotally, another veterinarian, Jeffrey Powers, D.V.M., credits CBD with easing his own dog's fireworks-related anxiety.

If you live in one of the 47 states that has legalized CBD for human use, "there's nothing to stop you from buying these products—including tinctures, capsules, and chew treats—for your pet," says Rachel Rabkin Peachman, a CR investigative journalist. "But talk to your vet first, especially if your pet is on other meds, as some drugs may interact with CBD. Your vet may also be able to help you with dosages."

If you do shop for CBD, keep in mind that the market is largely unregulated. Look for products that claim to follow Good Manufacturing Practices or have received the U.S. Hemp Authority designation. These labels increase the chances that a product has been made

with safe ingredients in a clean environment. Also look at the company's website for a certificate of analysis, or COA, which is a testing process that checks for contaminants and CBD (and THC) levels.

For more information on CBD for pets, watch our video at [CR.org/pet0719](https://www.consumerreports.org/pet0719). You can also go to [veterinariancannabis.org](https://www.veterinariancannabis.org) for more guidance.

My blender can't make a smooth smoothie. I always get ice chunks in my drink.

Over the years, our blender testers have become experts at making the perfect (virgin) piña colada: We make batches in each blender we test to evaluate how smooth and thick a drink it can produce.

Our secret? Because few blenders are powerful enough to crush large ice cubes if you simply pile them onto the blades, "always pour liquids in first—juice, alcohol—and only then add the ice," says Cindy Fisher, who oversees CR's blender testing. "There should be enough liquid that the ice floats." Start on a low speed, and gradually increase it.

If your blender is still struggling, try using crushed ice rather than cubes. The smaller chunks will be easier on the blades. If your refrigerator doesn't turn out crushed ice, wrap cubes in a kitchen towel, then smash them up with a mallet.

Ready for a new blender? The Ninja Professional NJ600, \$100, crushed our ice-crushing tests.



LEARN

We have more than 140 in-house experts who research, test, and compare. Submit your questions at [CR.org/askourexperts](https://www.consumerreports.org/askourexperts) ... and watch for the answers.

CR Insights

In the Know

Curious About Cold Brew Coffee?

AS MOST SEASONED coffee drinkers will tell you, cold brew coffee isn't just iced coffee. It requires ground beans to steep for hours instead of minutes, and the flavor is generally less bitter. The drink is rising in popularity partly due to coffee's healthy reputation—it's low in sugars and calories when served black—and studies show that it may reduce the risks of heart disease and type 2 diabetes.

Cold brew has expanded from coffee shops to grocery stores, where it's now sold in ready-to-drink bottles and cans. But when CR evaluated more than 40 premade cold brews from seven brands, comparing their nutrition and claims, we found that many aren't so healthy. Look closely at:

Caffeine. Cold brew typically has more caffeine than hot coffee does, says CR nutritionist Amy Keating, R.D., because you generally need

more coffee grounds per ounce of water, plus a longer brew time. Regular brewed coffee has about 12 to 16 mg of caffeine per fluid ounce; one cold brew we reviewed had as much as 25 mg per fluid ounce.

Sugars. Some bottles we reviewed had as much as 16 grams—around 4 teaspoons—of added sugars. The American Heart Association recommends limiting added sugars to 25 grams per day for women and 36 grams for men.

Surprise ingredients. More than half of the products we looked at contained salt, baking soda, or sodium phosphate, and 11 of those ranged between 200 and 320 mg of sodium per serving. (That's the same amount as in about 30 to 48 potato chips.) "Many also added ingredients, such as gums and chicory root fiber, that you don't need in your coffee," Keating says.



HEALTHIER COLD BREWS

These black brews have no sugars or other additives.



Rise Brewing Co. Original Black Nitro Cold Brew Coffee

0 CALORIES 0 G CARBS
0 G SUGARS 0 MG SODIUM
180 MG CAFFEINE
Per 7 ounces



Califia Farms Cold Brew All Black Coffee Single Origin Ethiopia Yirgacheffe

20 CALORIES 3 G CARBS
0 G SUGARS 20 MG SODIUM
190 MG CAFFEINE
Per 10½ ounces



Starbucks Cold Brew Coffee Black Unsweetened

15 CALORIES 3 G CARBS
0 G SUGARS 0 MG SODIUM
210 MG CAFFEINE
Per 11 ounces



Chameleon Cold-Brew Black Coffee

10 CALORIES 3 G CARBS
0 G SUGARS 0 MG SODIUM
230 MG CAFFEINE
Per 10 ounces

Map of the Month

Melanoma Rates on the Rise

THE MAPS AT RIGHT show a troubling trend: Almost all states saw an increase in their annual rate of new cases of melanoma—a potentially life-threatening type of skin cancer—between 2005 and 2015, according to data collected by the Centers for Disease Control and Prevention, and the National Cancer Institute.

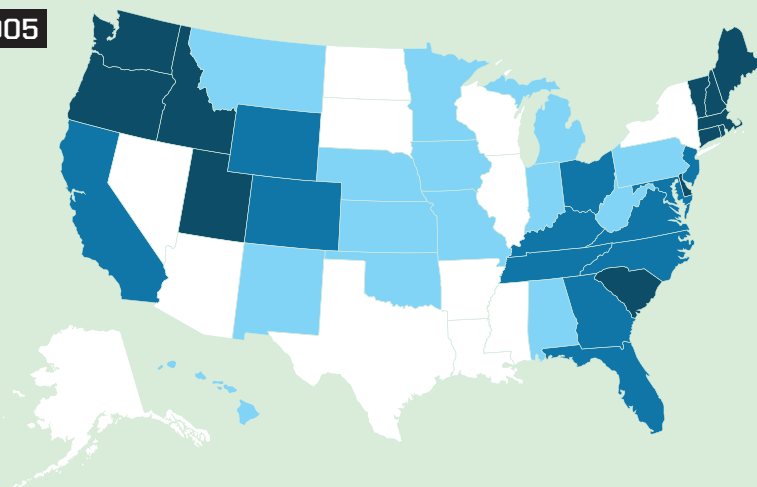
Surprisingly, states with ample sunshine don't always have higher rates. For example, hot and sunny Texas has one of the lowest rates of new melanomas. Recreational sun exposure, tanning bed use, ethnicity, and increased detection may all contribute to a state's rate.

To help lower your risk, cover up or stay in the shade when ultraviolet (UV) rays are strongest (from 10 a.m. to 2 p.m.) and wear sunscreen whenever you're in the sun. (Turn to "Is Your Sunscreen Safe?" on page 46, to see which products provided the best protection in our testing.) You should also conduct regular skin checks. Melanomas can develop anywhere on the body and are likely to spread to other parts of the body if not caught early, so it's important to see a doctor as soon as you spot anything out of the ordinary. You can go to CR.org/skin0719 for a brief guide to identifying skin spots.

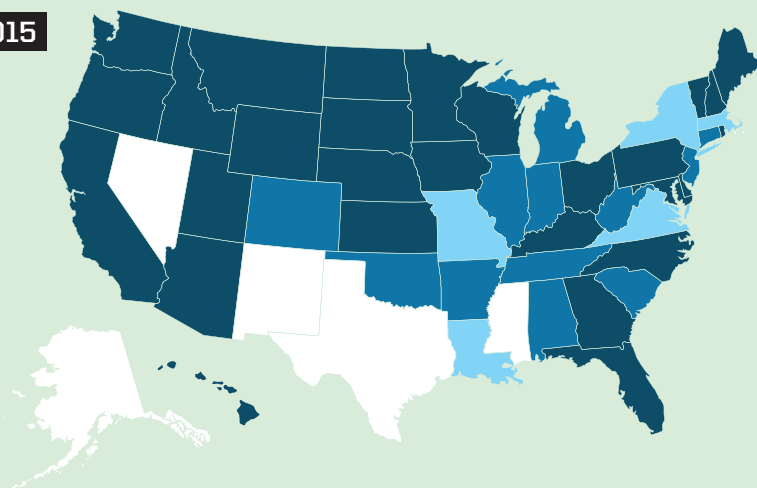
RATES ARE THE NUMBER OF NEW CASES PER 100,000 PEOPLE AND ARE AGE-ADJUSTED.

5.5-16.9 17.0-19.8 19.9-22.8 22.9-42.6

2005



2015



Sources: Centers for Disease Control and Prevention, and National Cancer Institute.

PHOTOS: BOTTOM FROM LEFT: CONSUMER REPORTS; SC. JOHNSON; CONSUMER REPORTS. OPPOSITE PAGE: (TOP) JOHN WALSH/CONSUMER REPORTS

CR Time Traveler PESTS

1944 We rate more than 30 insecticides and fungicides, and advise gardeners to look for eggs on the underside of leaves before spraying plants with a "fine mist, not a drenching."



1963 We report that labeling encourages the misuse of insecticides. Many have a cavalier attitude, with phrases like "Smells good too!" and "For use even around children."



1938 We publish news that "will shock most housewives": Of 43 tomato catsup brands we test, all have worm or insect fragments, and six exceed 25 insect fragments per half-pint.



1955 The first Raid product is launched by Johnson's Wax (now SC Johnson). Two years later, the Off brand launches.



1974 We petition the U.S. Environmental Protection Agency to publicly review insecticide products that emit DDVP, a substance used to control flying insects that we believe is unnecessarily hazardous.

TOUGH ON STAINS

✓ **Bissell**
PowerFresh Slim
2075A \$130
(pictured at right)

LARGE RESERVOIR

✓ **Bissell**
PowerFresh Deluxe
1806 \$90

BEST STEAM DELIVERY

✓ **Shark Genius**
Steam Pocket
S5003D \$100

POOR PERFORMER

✓ **Shark Steam**
Pocket S3501
\$80

79

OVERALL
SCORE

77

OVERALL
SCORE

73

OVERALL
SCORE

9

OVERALL
SCORE

Detachable Steam Generator

This model lets you detach a handheld steamer from the mop.

Steam Control

A button near your thumb controls the amount of steam that's released.

Accessories

Some mops come with extra tools for cleaning grout and more. This model's tool set attaches to the base.

Be Wary on Wood

Most steam mops indicate that they can be used on sealed wood. But if the finish has worn off on your floorboards, be careful: Water and steam could potentially cause damage.

Long Power Cord

A 25- to 30-foot cord is best, because extension cords may be unsafe with these high-wattage appliances.

Swivel Head

A rotating mophead eases maneuvering in tight spaces.

Product Spotlight

Steam Mops

STEAM MOPS PROMISE to “wipe the floor” with your regular mop, lifting dried food spills from ceramic or tile floors without the hassle of a pail full of suds. But are these products—often priced around \$100—really any better than a standard old squeeze mop? To wring out the truth, we put steam mops from Bissell

and Shark through a series of cleaning tests in our labs.

First, we apply ketchup (which is easy to clean), jam (slightly more difficult), and mustard (the hardest to clean) to the surface of a ceramic tile and let it dry. Then we take several passes at the soiled floor with a steam mop. After letting it

air-dry, we identify how much soil was removed and how much remains. For comparison, we repeat those same tests with an ordinary squeeze mop, using only hot tap water.

The result? The low-tech squeeze mop tended to clean better than most steam mops. And one mop we tested—the

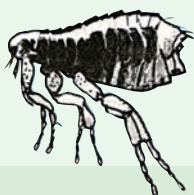
Shark Steam Pocket—didn't clean well and has a short power cord (20 feet), plus you must pump the handle like a squirt gun for steam.

If you prefer a steam mop for its convenience, the best we tested are versatile, produce steam above 175° F to help kill germs, and don't require much elbow grease.



1983 A new product, the ultrasound generator, claims to banish mice, rats, roaches, spiders, and more. Though it may be somewhat effective on rodents, it's unlikely to work against insects, we say.

1991 CR reports that certain chemicals found in some flea and tick collars or sprays might harm pets, and we suggest 10 less-toxic pet products worth trying. We also tell concerned pet owners the ingredients to look for (and avoid) in pest-relief products for pets.



2010 Brave repellent testers bare their sprayed arms in mosquito-filled lab cages and record how long it takes for the bugs to start biting (a test we still do today). The Off spray, above, earns our top score.



2019 Our testers find that repellents containing 25 to 30 percent DEET offer the best protection against mosquitoes.

✓ **TOTAL HOME (CVS)**
WOODLAND SCENT
INSECT REPELLENT
(DEET 30%) \$6.50

94 OVERALL
SCORE



Food Sleuth

Decoding Bread Labels

To find the healthiest brown bread, start by looking for whole grains. Adults should eat about 48 grams of whole grains a day, and studies show that they may help lower the risks of heart disease and type 2 diabetes. Examine these labels to choose your loaf wisely.

This language indicates that a bread's flour is made from the entire grain kernel—the bran, endosperm, and germ. Refined grains, such as white flour, contain only the endosperm. The bran and germ are where most of the healthy stuff—antioxidants, B vitamins, fiber, and other nutrients—is found.

Whole-wheat bread is made with whole-wheat flour. Whole-grain bread can also include other types of grains, such as oats, brown rice, and barley. As long as the bread is 100 percent whole grain, the two types are equally nutritious.

Breads with this seal are made with at least 95 percent organic ingredients, and the grains used were not grown with harmful synthetic pesticides.

By Food and Drug Administration standards, a product with this claim contains between 2.8 and 5.3 grams of fiber per serving. But if you want to know the exact amount, check the fiber grams on the nutrition panel.

This typically means a loaf's fiber is double the amount found in that same brand's "regular" brown loaf. To get there, some brands use added fibers like "cellulose fiber," but our experts say fiber from whole grains is better.

This phrase can be confusing—especially when "made with" appears in small print—because the bread may still contain mostly refined grains, which are not as nutritious as whole grains.

How many types of whole grains a bread has matters less than where they appear in the ingredients list: Look for whole grains toward the top, which means they are a main ingredient. If they're buried far down on the label, they may just be sprinkled in or added as a topping.

A 100% Whole Grain stamp means all of the bread's grain ingredients are whole grain, and it has at least 16 grams of whole grains per serving. A 50%+ stamp means at least half are whole grains, and a stamp without a percentage means less than half are whole grains, but the product contains at least 8 grams.

This indicates a bread with more than one type of grain, but you won't know how many—or whether they're refined or whole—based on those words alone.





\$ WEST BEND
2-SLICE 78823 \$25
(pictured above)

84 OVERALL
SCORE

\$ HAMILTON BEACH
2-SLICE 22910 \$25

81 OVERALL
SCORE

✓ OSTER 2-SLICE
TSSTTRJB2S \$25

81 OVERALL
SCORE

**SCORES FOR ALL
54 TWO-SLICE
TOASTERS WE TESTED**
Median: 77
Range: 62-92

Cool Product Feature of the Month

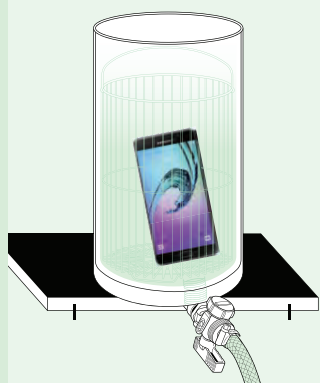
Bose Audio Sunglasses

IF YOU'RE SOMEONE who feels that having to remember both sunglasses and headphones is too much of a hassle when you head out for a summer walk, then these 99 percent UVA/UVB protection Bose Frames may be for you. They double as Bluetooth headphones, thanks to tiny speakers tucked into the arms that pipe audio back toward your ears. (You still have to carry your smartphone with you to access your audio apps and controls.)

Our testers say that—compared with traditional headphones—the audio rates just fair: a bit soft and hazy, with practically nonexistent bass. Even though the glasses don't have earbuds, they keep most of your listening private, though they don't provide any isolation from outside noise, so playback is challenging in loud environments. The frames also contain a motion sensor so that if you download Bose's free sound-based augmented reality apps on your iPhone or iPad, you'll be able to get GPS directions, play games, and more. The \$200 black frames come in two styles; the Alto is shown upper right.



HOW WE TEST WATER RESISTANCE IN SMARTPHONES



Worried your phone may go for an accidental swim this summer? In our labs, we face that fear head-on—by dropping the phones we test into our "dunk tank" (at left), then evaluating how they hold up.

Smartphones that claim to be water resistant typically fall into one of two categories: IP67, which means the unit should be protected when submerged up to 1 meter deep in water for 30 minutes, or IP68, which should withstand water up to 1.5 meters deep for 30 minutes. To verify these claims,

we submerge each phone at its claimed depth for half an hour.

We then check that the phone works immediately after removal, then after two days, and again after three days. (The extra days are to give the phone extra time to dry off.) Then we give the model a passing or failing score.

In our current ratings, the top phones—including many Samsung, LG, and Apple models—all passed our water-resistance tests. "But there's no such thing as a waterproof phone," cautions CR's smartphone tester, Richard

Fisco. And even water-resistant models typically don't have a warranty that covers water damage.

"So if your phone does get dunked, take precautions: Turn off the phone immediately, and leave it in a container of uncooked rice for a few days to dry before turning it back on," he says. (The rice absorbs moisture.)

And remember that water isn't the only summer hazard. "Sand can damage a phone, too. So if you go to the beach, it's wise to put yours in a ziplock bag," Fisco says.



RECALLS

TO STAY INFORMED ABOUT RECALLS FOR YOUR VEHICLES, READERS WITH MEMBERSHIP CAN USE OUR FREE CAR RECALL TRACKER AT **CR.ORG/MORE**.

FISHER-PRICE ROCK 'N PLAY SLEEPER



KIDS II
ROCKING
SLEEPER



A VICTORY FOR INFANT SAFETY

A Consumer Reports investigation, published on April 8, found that the Fisher-Price Rock 'n Play Sleeper—a product designed and marketed for babies to sleep on an incline—was tied to at least 32 infant deaths since it was first introduced to the market in 2009. While our investigation was underway—and days after we asked the federal government and company for comment—the federal government and Fisher-Price issued a warning about the product on April 5. In our published report, we noted that safety advocates felt the warning did not go far enough, and we called for Fisher-Price to recall the product. On April 12, Fisher-Price did so, recalling all 4.7 million of its Rock 'n Play sleepers, citing infant fatalities.

Marta Tellado, president and

CEO of Consumer Reports, said, "The Fisher-Price recall of the Rock 'n Play is long overdue. It took dogged investigation and the voices of doctors, victims' families, and advocates across the country to make this recall a reality. Congress needs to take a hard look at the CPSC [Consumer Product Safety Commission] and make sure it is a watchdog that consumers can rely on."

Parents should immediately stop using the products, which were sold at major retailers for approximately \$40 to \$149.

One of the earliest deaths that CR uncovered occurred in 2011, with more in the years that followed. There is, for example, the mother in Hidalgo County, Texas, who placed her 2-month-old daughter on her back for a night's sleep on Oct. 19, 2013, according to a lawsuit filed by the family against Fisher-Price. At 4 a.m., when the mother checked, all was well. But by 7 a.m., the baby had stopped breathing. Her head was tilted to the side with her chin on her shoulder, compressing her airway. She was pronounced dead from positional asphyxia, or an inability to breathe caused by her position.

As part of the same investigation, CR also reported on another company's inclined sleepers—the

Kids II rocking sleepers—linked with four infant deaths. Two weeks after CR called for the products to be recalled, Kids II recalled about 694,000 of its rocking sleepers, citing "five infant fatalities" (four of which were those first reported by CR on April 11). The recall includes all models of Kids II rocking sleepers made from March 2012 through April 2019, such as the Ingenuity Moonlight Rocking Sleeper and the Bright Starts Playtime to Bedtime Rocking Sleeper. The sleepers were sold at retailers nationwide, including Walmart, Target, and Toys "R" Us, and online from March 2012 through April 26, 2019, for about \$40 to \$80.

The American Academy of Pediatrics (AAP) has warned that inclined sleepers such as these do not align with safe sleep guidelines, which state that babies should be put to bed on their backs, on a firm, flat surface, free from soft bedding and unrestrained. Because inclined sleepers increase the risk of suffocation and strangulation, CR also recommends that caregivers discontinue the use of other similar inclined sleep products.

"These inclined products conflict with medical experts' safe sleep recommendations," says William Wallace, manager of home and products policy for CR. "The CPSC should get any infant sleep product that doesn't align with this advice off the market right away so that caregivers don't unwittingly put their babies at risk."

What to do: Consumers who own a Fisher-Price Rock 'n Play sleeper should stop using the product immediately and contact Fisher-Price for a refund or voucher. Go to service.mattel.com and click on Recalls & Safety Alerts or call 866-812-6518 for more information. Consumers who own a Kids II rocking sleeper should stop using the product immediately and contact Kids II at 866-869-7954 or go to kids2.com for details on a refund or voucher.

—Rachel Rabkin Peachman

SMARTPHONE POWER BANKS



Daniel M. Friedman & Associates is recalling about 170,500 Betsey Johnson universal rechargeable power banks used with smartphones and tablets because they can overheat and pose a fire hazard. The power banks were sold at Burlington, Kohl's, Ross, and other stores nationwide from November 2016 through January 2019 for about \$25.

What to do: Stop using the power bank and call the company at 855-706-6500 or go to betseyjohnson.com to arrange to return the product for a refund.



GRILLS

Tekno Products is recalling about 40,200 Tuff Smoke-Less grills because the portable electric grill can overheat and pose fire and burn hazards. The company has received 12 reports of the grill overheating, including five reports of fire resulting in property damage and a report of a minor burn injury. The grills were sold at stores nationwide from October 2018 through February 2019 for about \$50.

What to do: Stop using the grill and call Tekno Products at 888-298-3566 to get a refund.



BICYCLES

Specialized Bicycle Components is recalling about 63,000 Specialized Roubaix, Ruby, Diverge, and Sirrus bicycles with steerer tube collars because the collar can crack if exposed to corrosion, resulting in sudden loss of steering control and posing fall and injury hazards. They were sold at authorized Specialized retailers from July 2016 through January 2019 for \$1,650 to \$11,500.

What to do: Stop using it. Call Specialized at 877-808-8154, or go to specialized.com or an authorized retailer to arrange for a free repair.

What's in Your Bottled Water?

A CR investigation reveals potentially harmful levels of arsenic. As we push for tougher standards, here's what you need to know.

by Ryan Felton

BOTTLED WATER IS now the nation's best-selling bottled beverage: Sales grew to \$18.5 billion last year, up 19 percent over three years, according to the International Bottled Water Association.

But a CR investigation has found that, in some cases, bottled water sold in U.S. stores contains potentially harmful levels of arsenic, sometimes more than would be allowed for the tap water flowing into homes.

"It makes no sense that consumers can purchase bottled water that is less safe than tap water," says James Dickerson, Ph.D., chief

scientific officer at Consumer Reports. "If anything, bottled water—a product for which people pay a premium, often because they assume it's safer—should be regulated at least as strictly as tap water."

The federal threshold for arsenic in tap and bottled water is 10 parts per billion. But New Jersey has set a lower standard, 5 ppb, just for tap water. New Hampshire is considering a similar standard for tap water.

CR believes the federal limit for bottled water should be revised lower, to 3 ppb. Growing research suggests that long-term arsenic

exposure at levels well below the federal limit can pose health risks.

CR tracked down and reviewed hundreds of public records and test reports from bottled water brands, and from various federal and state regulators, to assess arsenic levels.

We found several widely sold brands self-reporting levels above 3 ppb: Whole Foods-owned Starkey spring water (from Idaho), Keurig Dr Pepper-owned Peñafiel (from Mexico), Crystal Geyser Alpine Spring Water (specifically from its Olancho, Calif., plant), Volvic (from France), and Crystal Creamery, a regional

Zero Tolerance

The EPA's public health goal for arsenic in drinking water is zero.



Safety Update

California brand that stopped selling bottled water in 2018 (consumers could still have some in their homes).

The Importance of Testing

As part of CR's review, we spot-tested three brands previously flagged by the Food and Drug Administration for excessive arsenic: Jermuk (from Armenia), Peñafiel, and Starkey.

Jermuk showed a dramatic decline from a 2009 report, with our testing showing levels averaging 1.31 ppb. Starkey showed levels from 9.48 to 10.1 ppb, approaching or exceeding the federal limit. Peñafiel had average levels at 18.1 ppb, above the federal limit.

Starkey recalled more than 2,000 cases of water in late 2016 and early 2017 after tests showed levels above the federal threshold.

Keurig Dr Pepper, which owns Peñafiel, provided CR in March with the brand's 2018 bottled water quality report, which indicated nondetectable amounts of arsenic. But after receiving CR's spot-test results, the company

said it retested Peñafiel and also found elevated levels (an average of 17 ppb). The company said it used a different testing protocol and consulted the FDA.

Keurig Dr Pepper also told CR that it would suspend bottled water production for two weeks in April at its Mexico facility that makes Peñafiel for export to the U.S., so it could improve how it filters arsenic from the water.

"The health and safety of our consumers is our top priority," said Katie Gilroy, spokesperson for Keurig Dr Pepper. But she said that the company didn't think a recall was necessary and that the FDA agreed.

CR believes a recall should have been issued. At press time, an FDA spokesperson said it had no immediate plans to recall any Peñafiel bottled water.

How Harmful Is Arsenic?

Arsenic is a naturally occurring heavy metal present in some water supplies, depending on local geology. Some natural water sources don't contain

the heavy metal. Companies can test for arsenic and treat water to remove it.

Drinking a single glass of water with small amounts of arsenic will not harm you, says CR's Dickerson. But research shows that regular consumption of low levels of arsenic over extended periods can lower IQ scores in children and increase the risk of cardiovascular disease, certain cancers, and other problems, he says.

A Need for Better Regulation

CR's review found that some companies were issued violations by the FDA and by some states for lacking required test data on arsenic levels. The companies were instructed to correct the violations.

The FDA itself doesn't test the water and relies on results provided by companies, a spokesperson said. (The agency, however, does spot-test imported water.)

That should change, Dickerson says: "The FDA should test bottled water for arsenic and other contaminants."

Others also say companies should do more. They "make a mint on basically

Arsenic Levels in Bottled Water

BRANDS WITH LOWER LEVELS

Leading brands that self-reported arsenic levels as below 3 ppb or nondetectable.

Aquafina	Ice Mountain
Arrowhead	Kirkland (Costco)
Dasani	Life WTR
Deer Park	Market Pantry (Target)
Essentia	Nestlé Pure Life
Evian	Niagara
Fiji	Poland Spring
Glaceau Smart Water	Propel

Brands listed in alphabetical order.

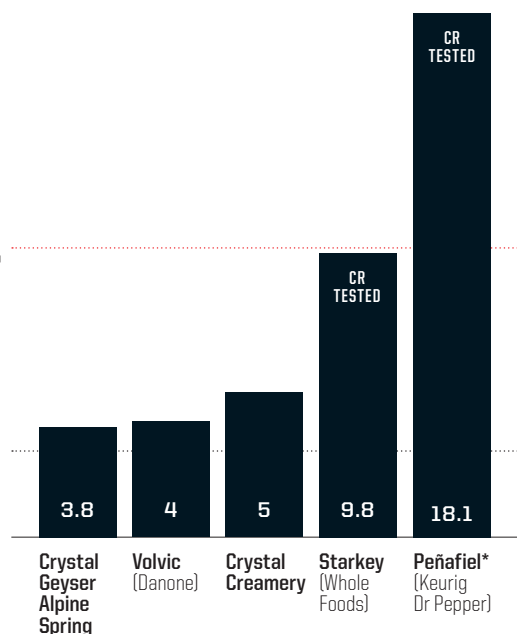
BRANDS WITH HIGHER LEVELS

Brands that self-reported arsenic levels at or above the CR-recommended threshold of 3 parts per billion. The federal legal limit is 10 ppb.

CR also spot-tested Starkey (owned by Whole Foods) and Peñafiel (owned by Keurig Dr Pepper).

FDA
10 ppb

CR
3 ppb



*Keurig Dr Pepper told CR on April 15 that it had suspended production at its facility in Mexico to address the problem.

something that's a free resource," says David Carpenter, Ph.D., director of the Institute for Health and the Environment at the University at Albany, State University of New York. "So there's no reason that they can't find a water source that is either very, very low in arsenic or do the treatment themselves."

Learning More About Water

For now, it's mostly up to consumers to track down data about bottled water, but finding test reports can be difficult. (See the facing page for a list of brands with arsenic levels reported by manufacturers as below 3 ppb or nondetectable.)

"Remember, those results are self-reported, so we can't be certain that water actually has the amount of arsenic claimed," says CR's Dickerson.

If you buy bottled water not listed in our chart, you can go to the brand's website to see whether it publishes test results. Some companies also put a phone number or an email address on the bottle label for consumer questions. Try to find brands that show nondetectable levels of arsenic, and look in test reports for other contaminants.

You can cut arsenic levels by running drinking water through a reverse osmosis filter, but that can be pricey.

To test your tap water, find a certified lab on the Environmental Protection Agency website. You also can request a consumer confidence report from your local water system. It's also important, especially for children, to limit arsenic exposure from other sources, such as rice, fruit juices, and baby foods.

"Arsenic's health concerns are due to cumulative exposure—the more you consume, from all sources, the greater the risk," Dickerson says. "So you want to limit your exposure overall, and water is a good place to start."

Translating Bottled Water Labels

This glossary can help consumers better understand terms on bottled water labels. Some denote origin; others, the makeup of the water. Seltzers, tonics, and flavored brands are regulated as soft drinks. Except where otherwise noted, the FDA defined these terms.

ALKALINE

Water with a pH level above 7. Some proponents say it can neutralize acid in a person's blood and so provide a health benefit. This is an industry term; the FDA doesn't have a standard of identity.

ARTESIAN

Water from a well that taps a confined aquifer, or an underground layer of rock or sand.

GLACIER WATER

Alaska has set its own definition—"glacier water" or "pure glacier water" must be runoff from the melting of a glacier in nature or at a processing facility. Or it can come from an undiluted stream of glacier runoff. The FDA doesn't have a standard.

MINERAL

Water with at least 250 parts per million of dissolved solids, with consistent minerals and trace elements at its source. Bottlers cannot add minerals, which differentiates it from bottled water labeled as "enhanced with minerals."

MUNICIPAL SOURCE

If the label says "municipal source," it's from a tap. A significant percentage of bottled water is sourced this way.

PURIFIED

Water that has been treated using various methods to remove chemicals to meet standards set by the U.S. Pharmacopeia. It can't contain more than 10 ppm of total dissolved solids.

RAW

Water bottled from the source, without filtration. If tests show that the source water meets quality standards, it can be legally sold. This is an industry term; the FDA doesn't have a standard.

REVERSE OSMOSIS

A process that makes purified water by separating pure water from a less pure solution, according to the FDA. The process removes arsenic and other toxins.

SPARKLING BOTTLED WATER

Water with natural carbonation. It must have the same level of CO₂ after treatment, even if artificially replenished. (This is different from sparkling water, which the FDA regulates as a soft drink.)



LEARN

To follow CR's ongoing coverage of the safety of bottled water, go to [CR.org/arsenicinwater](https://www.consumerreports.org/arsenicinwater).

Product Update

The latest ratings from our labs

What goes wrong with gas grills?

30% Ignition problems

28% Rusting/corrosion

18% Grates flake or crack

13% Burners crack or experience damage

11% Uncontrolled flare-ups

Source: Consumer Reports' 2018 Fall Survey.

The Indestructibles

Lots of grills are a thrill to use the first season or two. But if you want a star performer that lasts, consult our ratings with their new predicted reliability scores.

by Paul Hope



✓ Weber
Genesis II E-330
61012001 grill
\$900

75 OVERALL
SCORE



INSIDE
CR'S LABS

After using lab equipment to test for heating evenness, a CR engineer grills burgers to confirm the findings.

IMAGINE WHEELING OUT your grill for the first alfresco cooking of the season only to have it flex and bend out of shape—or even lose a wheel. Maybe the very grill that made you feel like a champion pitmaster last summer is now corroded or held together with rusty bolts.

We've been there.

"In years past, flimsy grills could rise to the top of our ratings because they would cook well when brand-new," explains Cindy Fisher, CR's test engineer in charge of grills. "But you got the feeling these models weren't designed to last more than a few seasons. They certainly weren't models I'd recommend to a friend."

To address this inconsistency and help you find a model that lasts, we've significantly expanded how we test, analyze, and rate gas grills. In addition to the crucial performance metrics we've always assessed, our ratings now incorporate comprehensive reliability and satisfaction data from thousands of CR members.

Because solid construction isn't a given with gas grills, last year we added a sturdiness rating for every model we test. It reflects how prone a grill is to bending or flexing either during use or while being moved around—say, from one part of your deck or patio to another.

Our scores for predicted reliability and owner satisfaction are based on responses from more than 38,000 CR members to our annual gas-grill survey, in which we ask grill owners to tell us about their experiences with their grills and the problems they've encountered. We calculate predicted reliability by using that data to make projections about how new models from a given brand will hold up over time.

The Life Expectancy of a Grill

A whopping 88 percent of gas grills bought by CR members since 2008 are still in use, including 64 percent that are a full 10 years old. But life

BARBECUE BARGAINS

You don't need to spend a lot to buy a grill that performs well and holds up season after season. These models—the least expensive in their categories—will do both.

SMALL GAS GRILLS
room for up to 18 burgers



Dyna-Glo
DGC310CNP
\$100

65

MIDSIZED GAS GRILLS
room for up to 28 burgers



Nexgrill
720-0888N (Home Depot)
\$200

67

LARGE GAS GRILLS
room for 28 burgers or more



Broil King
Baron 590 923184
\$800

69

expectancy can vary by brand. And just because a grill makes it to the 10-year mark doesn't mean it has provided worry-free performance that entire time.

Nearly a third of the gas-grill owners we surveyed reported ignition problems. And roughly half of the Kenmore, Char-Griller, Master Forge, and Aussie grills that CR members own have rusted or corroded, according to our survey. A grill with those sorts of problems, however, may still work.

Among members who had their grill repaired, 85 percent reported that they paid the full repair cost out of pocket. If you're planning to buy an extended warranty to cover the cost of such repairs, you may want to reconsider: Only 13 percent of those who bought an extended warranty used it to cover a grill repair, and the average price of these warranties exceeds the average out-of-pocket cost of repairs.

The ratings on the following pages, based on our lab testing and member surveys, will help you choose a grill that can withstand frequent use—and the elements. As always, our proprietary performance tests will tell you how quickly and evenly a grill heats, and give you other critical information, such as a grill's range of cooking temperatures.

We've filtered out all but the top tier of grills. These are the models that do well in our tests, come from brands that earn Very Good or Excellent ratings for predicted reliability, and have lower rates of rust and corrosion, according to our member survey.

So get grilling. And keep on grilling for years to come.

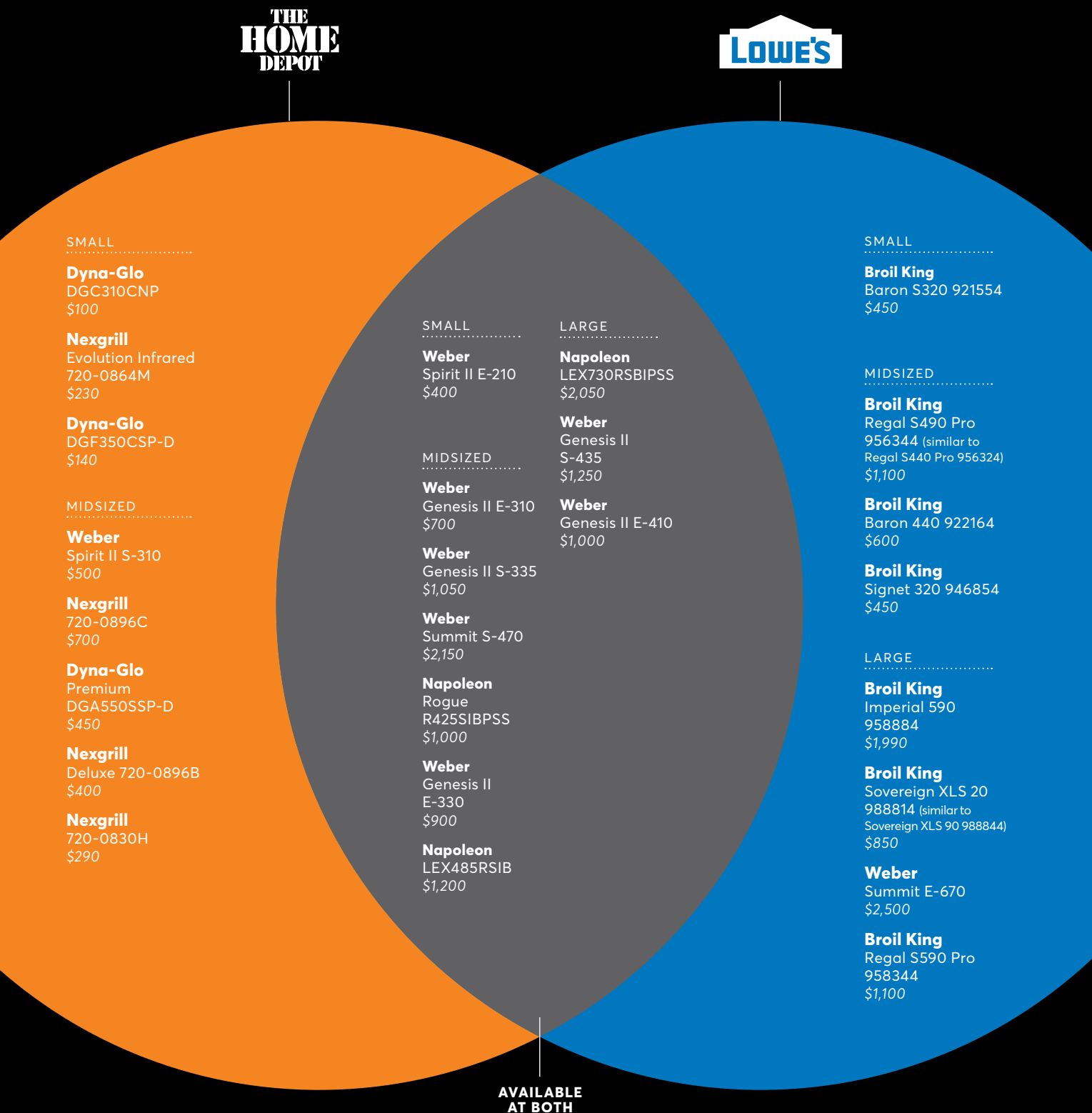


WATCH

For a video on how to keep your gas grill in top condition all summer long and expert tips on maintaining and cleaning it, go to [CR.org/grillcleaning0719](https://www.consumerreports.org/grillcleaning0719).

BIG-BOX STORE BUYS

Fifty-six percent of consumers buy their grills at major home centers. The competition between Home Depot and Lowe's translates into aggressive pricing on some of the spiffiest models. Here are several of our top picks (all score Very Good overall) sold at each store—or both.



THE BRAWNY BUNCH

We sorted through the nearly 200 gas grills in our ratings to select standouts built to cook well for many years. The nine models shown here, and all of those that follow in our ratings charts, are stellar performers as well as sturdy and reliable. What’s more, they’re manufactured by brands with the lowest rates of rusting and corrosion—11 to 24 percent, as reported in our member survey. (Rates for other brands were as high as 55 percent.)

THE BRAWNIEST: SMALL

70



 PREDICTED RELIABILITY

 STURDINESS


65




 PREDICTED RELIABILITY
























 STURDINESS

64



 PREDICTED RELIABILITY

 STURDINESS

		Brand & Model	Overall Score	Price	Survey Results		Test Results						Features		
Recommended	Rank				Predicted reliability	Owner satisfaction	Evenness performance	Preheat performance	Temperature range	Indirect cooking	Convenience	Sturdiness	Stainless steel grates	Coated cast-iron grates	Long-warranty burners
SMALL GAS GRILLS (room for up to 18 burgers)															
	1	Weber Spirit II E-210 44020001	<div>70</div>	\$400											
	2	Nexgrill Evolution 720-0864M (Home Depot)	<div>68</div>	\$230											
	3	Dyna-Glo DGF350CSP-D	<div>66</div>	\$140											
	4	Dyna-Glo DGC310CNP	<div>65</div>	\$100											
	5	Broil King Monarch 320 834254	<div>64</div>	\$450											
	6	Nexgrill Evolution Infrared 720-0864M (Home Depot)	<div>63</div>	\$230											
	7	Broil King Baron S320 921554	<div>61</div>	\$450											
	8	Dyna-Glo DGB300CNP-D	<div>61</div>	\$180											

THE BRAWNIEST: MIDSIZED

Weber

Genesis II E-310
\$700

77



↑ PREDICTED RELIABILITY ↑ STURDINESS

Nexgrill

Deluxe 720-0896B (Home Depot)
\$400

73



↑ PREDICTED RELIABILITY ↓ STURDINESS


Napoleon

Prestige P500RSIB
\$1,400

72



↑ PREDICTED RELIABILITY ↑ STURDINESS

		Brand & Model	Overall Score	Price	Survey Results		Test Results						Features		
Recommended	Rank				Predicted reliability	Owner satisfaction	Evenness performance	Preheat performance	Temperature range	Indirect cooking	Convenience	Sturdiness	Stainless steel grates	Coated cast-iron grates	Long-warranty burners
MIDSIZED GAS GRILLS (room for up to 28 burgers)															
✓	1	Weber Genesis II E-310	77	\$700	⬆	⬆	⬆	⬇	⬆	⬆	⬆	⬆		•	•
✓	2	Weber Genesis II S-335 61006001	76	\$1,050	⬆	⬆	⬆	⬇	⬆	⬆	⬆	⬆	•		•
✓	3	Weber Genesis II E-330 61012001	75	\$900	⬆	⬆	⬆	⬇	⬆	⬆	⬆	⬆		•	•
✓	4	Weber Genesis II SE-335 61016201	75	\$1,000	⬆	⬆	⬆	⬇	⬆	⬆	⬆	⬆	•		•
✓	5	Weber Summit S-470	75	\$2,150	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	•		•
✓	6	Weber Spirit II S-310 45000001	74	\$500	⬆	⬆	⬆	⬇	⬆	⬆	⬆	⬆		•	•
✓	7	Nexgrill Deluxe 720-0896B (Home Depot)	73	\$400	⬆	⬇	⬆	⬆	⬆	⬆	⬆	⬇		•	
✓	8	Nexgrill 720-0896C (Home Depot)	73	\$700	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬆		•	
✓	9	Napoleon Prestige P500RSIB	72	\$1,400	⬆	⬆	⬆	⬇	⬆	⬆	⬆	⬆	•		•
✓	10	Napoleon LEX485RSIB	71	\$1,200	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬇	•		
💰	11	Nexgrill 720-0830H (Home Depot)	71	\$290	⬆	⬇	⬆	⬆	⬆	⬆	⬇	⬇	•		
	12	Napoleon Rogue R425SBPK	70	\$750	⬆	⬆	⬆	⬇	⬆	⬆	⬇	⬇		•	•
	13	Nexgrill 720-0888N (Home Depot)	67	\$200	⬆	⬇	⬇	⬆	⬆	⬆	⬇	⬇		•	
	14	Napoleon Rogue R425SIBPSS	67	\$1,000	⬆	⬆	⬆	⬇	⬇	⬆	⬆	⬆	•		•
	15	Dyna-Glo Premium DGA550SSP-D	67	\$450	⬆	⬇	⬇	⬆	⬆	⬆	⬇	⬇	•		
	16	Nexgrill Evolution 720-0882A (Home Depot)	66	\$450	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬇	•		
	17	Broil King Baron 440 922164	65	\$600	⬆	⬇	⬆	⬇	⬆	⬆	⬆	⬇		•	•
	18	Nexgrill 720-0898	64	\$330	⬆	⬇	⬇	⬆	⬆	⬆	⬇	⬆		•	
	19	Broil King Signet 320 946854	62	\$450	⬆	⬇	⬇	⬆	⬆	⬆	⬇	⬇		•	•

THE BRAWNIEST: LARGE

Weber

Summit E-670
\$2,500

79



↑ PREDICTED RELIABILITY ↑ STURDINESS

Napoleon

LEX730RSBIPSS
\$2,050

76



↑ PREDICTED RELIABILITY ↑ STURDINESS


Broil King

Baron S590 923184
\$800

69



↑ PREDICTED RELIABILITY ↑ STURDINESS

		Brand & Model	Overall Score	Price	Survey Results		Test Results						Features		
Recommended	Rank				Predicted reliability	Owner satisfaction	Evenness performance	Preheat performance	Temperature range	Indirect cooking	Convenience	Sturdiness	Stainless steel grates	Coated cast-iron grates	Long-warranty burners
LARGE GAS GRILLS (room for 28 or more burgers)															
✓	1	Weber Summit E-670	79	\$2,500	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	•		•
✓	2	Weber Genesis II E-410	76	\$1,000	⬆	⬆	⬆	⬇	⬆	⬆	⬆	⬆		•	•
✓	3	Weber Genesis II S-435 62006001	76	\$1,250	⬆	⬆	⬆	⬆	⬇	⬇	⬆	⬆	•		•
✓	4	Napoleon LEX730RSBIPSS	76	\$2,050	⬆	⬆	⬆	⬆	⬆	⬆	⬇	⬆	•		•
✓	5	Napoleon Prestige Pro 665RSIB	74	\$3,300	⬆	⬆	⬆	⬇	⬆	⬆	⬇	⬆	•		•
✓	6	Broil King Regal S590 Pro 958344	72	\$1,100	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬆	•		•
	7	Broil King Baron 590 923184	69	\$800	⬆	⬇	⬇	⬇	⬆	⬆	⬆	⬆		•	•
	8	Broil King Imperial 590 958884	66	\$1,990	⬆	⬇	⬇	⬇	⬆	⬆	⬆	⬆	•		•
	9	Broil King Sovereign XLS 90 988844	63	\$1,000	⬆	⬇	⬇	⬇	⬆	⬆	⬇	⬇	•		•
>	All-Access and Digital members can find the latest, complete ratings at CR.org/grills .														

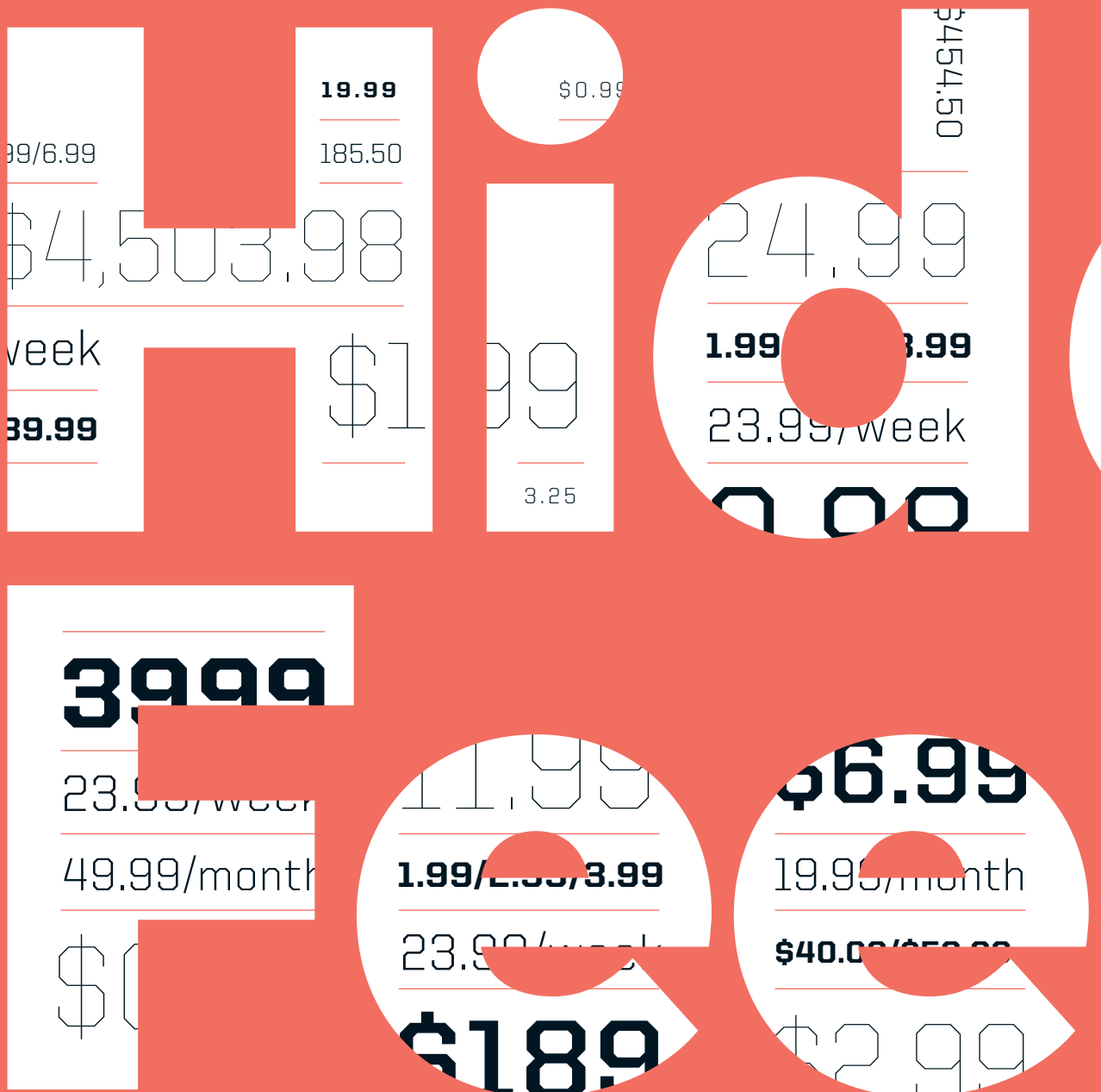
HOW WE TEST: First we wire each grill's surface with dozens of heat-resistant thermocouples and perform four crucial temperature tests: **Evenness performance** indicates how even the temperature range is across the cooking surface during preheat and using the main burners' lowest and highest settings.

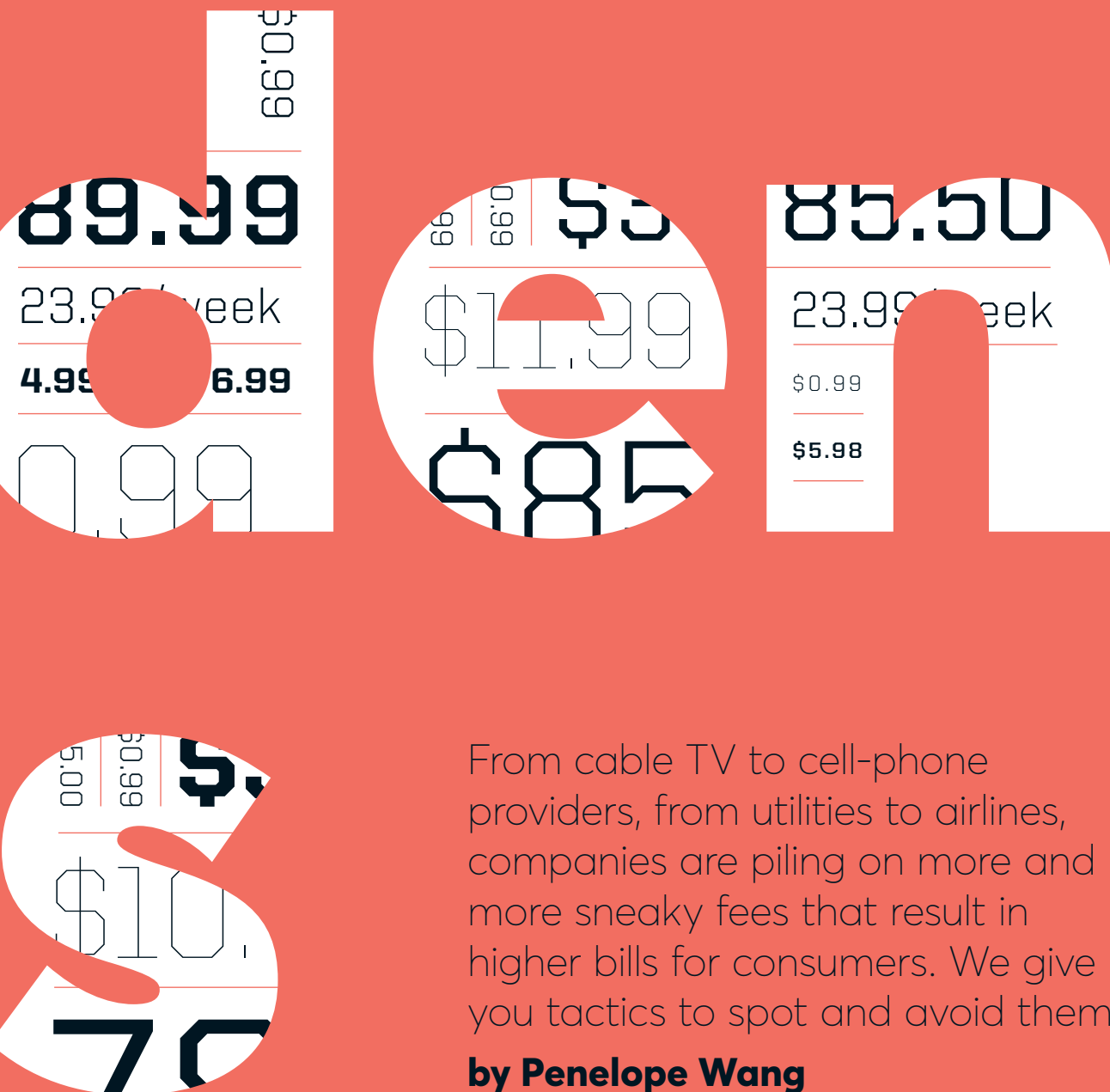
Preheat performance measures how hot the cooking surface is after 10 minutes. It also indicates how fast the grill reaches its maximum temperature. **Temperature range** reflects the span between the lowest and highest settings using all main

burners. **Indirect cooking** indicates how well a grill can control low heat. **Convenience** is our evaluation of basic features. **Sturdiness** reflects how solidly built each model is. **Overall Score** combines test results with survey data for predicted reliability and owner satisfaction. **Predicted reliability** estimates the

likelihood that newly purchased models from a given brand will develop problems or break within the first five years. **Owner satisfaction** reflects the proportion of CR members who are extremely likely to recommend the gas grill they bought.

PROTECT YOURSELF FROM





From cable TV to cell-phone providers, from utilities to airlines, companies are piling on more and more sneaky fees that result in higher bills for consumers. We give you tactics to spot and avoid them.

by Penelope Wang

There's the West Chester, Pa., woman irate over the \$25 broadcast and sports fees she pays every month though she never watches sports—and about the \$150 cancellation fee when she quit her provider.

Or the traveler in Texas who found that every time he went through a highway toll, the car rental company dinged him \$15 on top of the toll price, leading to an extra \$90 in “administrative fees.” “They will charge \$15 to process even a 31 cent toll charge,” he says. “Completely ridiculous!”

How about the music lover in Charlotte, N.C., shocked to find that after fees were added in, his concert ticket actually cost \$123.18, not \$99.95. Why can't it be that “the price shown is the price paid?” he wanted to know.

Those are just three of the roughly 3,480 Americans who wrote to Consumers Reports over the past 13 months angry about the growing number of fees showing up on their bills, all as part of CR's “What the Fee?!” campaign. “And more stories keep coming every day,” says Anna Laitin, director of financial policy at CR. “The stories show just how many fees people face, and how frustrating people find them.”

At least 85 percent of Americans have encountered an unexpected or hidden fee over the past two years for a service they had used, according to a recent nationally representative CR survey of more than 2,000 U.S. adults. And two-thirds of them say they are paying more now in surprise charges than they did five years ago.

As you might expect, almost everyone—96 percent—finds them annoying. “I'd like to find one of the 4 percent of people who doesn't mind these fees,” Laitin says. “Maybe an airline exec?”

Today these extra charges are being added to more and more transactions—hidden in the fine print of a contract, popping up when you reach the last page of an online purchase, or combined with taxes or other costs.

And those tacked-on fees—some small, some large, but none that you recall being alerted about—can make you feel taken advantage of, especially when they add up, as they often do, to a lot of extra money.

The good news is that in many cases it's possible to fight back against fees, and win.

For example, 3 out of 10 people in CR's survey who experienced a hidden charge in the past two years said they fought it—and almost two-thirds of those people said they were successful in getting the charge refunded or taken off the bill.

Recently in South Carolina, Duke Energy sharply scaled back a proposed 238 percent hike to the company's fixed fee—the amount you have to pay regardless of how much energy you use—after customers, along with CR and other groups, complained to the state utility commission.

Consumers are also battling against cable TV fees, which along with cell-phone and internet fees were the most commonly reported extra charge in CR's survey. Almost 140,000 cable TV subscribers around the country recently signed a CR petition demanding that cable providers eliminate add-on fees and advertise only the service's total price. And in response to a CR request, nearly 3,000 people actually sent us copies of their cable bills so that we could better understand exactly how these charges affect consumers.

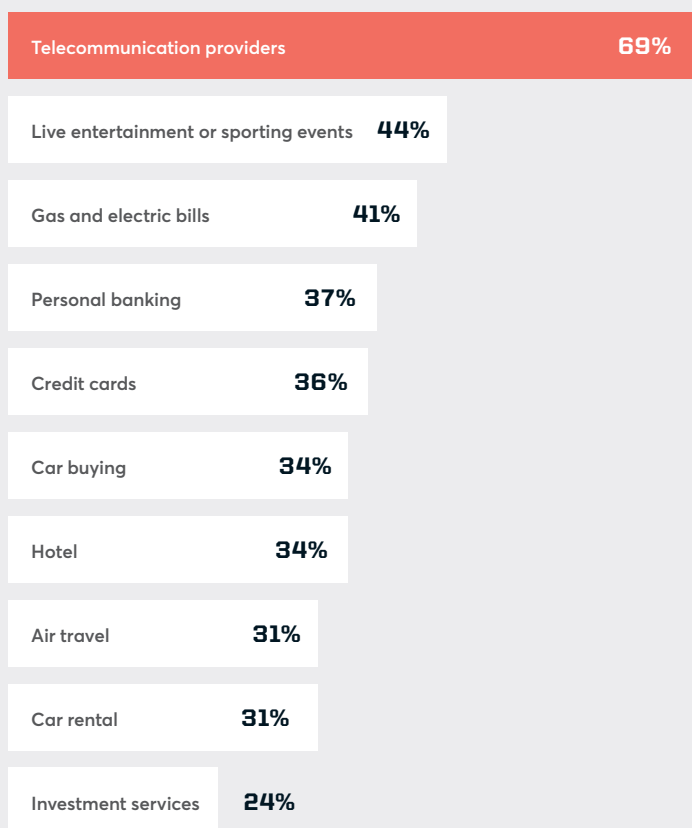
The High Cost of Hidden Fees

For a typical American family, these fees can pose a financial strain, adding up to thousands of dollars a year in extra costs (see “A Year in Fees: One Family's Story,” on page 35). On a national level, data from a few industries alone show

A Nation of Fee Fighters

At least 85 percent of Americans have experienced a hidden or unexpected fee for a service in the past two years—and nearly all of them found those bills annoying, according to a recent Consumer Reports survey of 2,057 U.S. adults. Below, other top findings from our survey.

► Did you experience a hidden fee in the past two years?*



► How did you respond to an unexpected or hidden fee?*

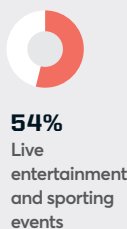
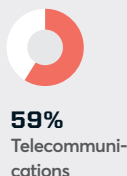


*Among respondents who have used the service in the past two years.

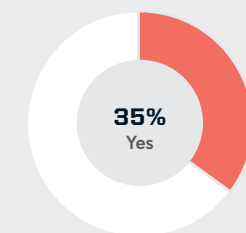
**Among respondents who encountered a hidden or unexpected fee in the service in the past two years.

Source: October 2018 Consumer Reports nationally representative survey of 2,057 U.S. adults.

► Did you spend more than budgeted because of hidden or unexpected fees?*



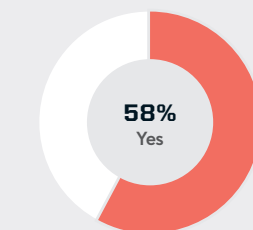
► Did you try to get a hidden or unexpected fee taken off a bill or refunded?*



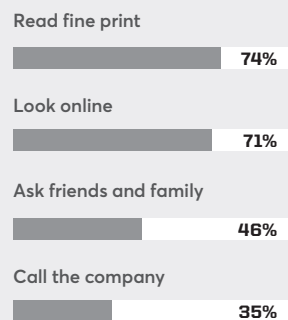
► Were you successful?*



► Do you usually research extra fees that might be added to the cost of your purchase before making the transaction?*



► How do you research?*



that add-on charges are siphoning billions of dollars from Americans' wallets every year.

In the case of airlines, for example, the two main travel charges—reservation change fees and baggage fees—accounted for a combined \$7.6 billion in revenue in 2018, up from \$6.8 billion in 2015, according to the Bureau of Transportation Statistics.

For banks, overdraft fees are a growing source of revenue, with the largest banks pulling in \$11.5 billion in overdraft charges in 2018, up from \$11.2 billion in 2015, according to an analysis of Federal Deposit Insurance Corp. (FDIC) data by the Center for Responsible Lending, a nonprofit consumer financial advocacy group.

The hotel industry, meanwhile, raked in a record \$2.9 billion in resort fees and other fees and surcharges in 2018, with even more expected for 2019, according to Bjorn Hanson, Ph.D., a hotel consultant and clinical adjunct professor at the Jonathan M. Tisch Center for Hospitality at New York University.

What Are We Being Charged Extra For?

The explosion in add-on fees may be an outgrowth of the rise of online shopping websites such as Expedia and Hotels.com, which allow consumers to quickly compare prices from multiple sellers and to zero in on the cheapest options. That stepped-up price competition has helped to lower prices for many goods and services.

But there's an unintended consequence: As companies strive to become the lowest-price provider, they have a powerful incentive to make their prices appear lower, often by labeling a portion of the cost as a fee, says Glenn Ellison, a professor of economics at the Massachusetts Institute of Technology who has studied online pricing. When disguised as fees, these costs may not be picked up by online shopping portal engines, though some websites may eventually capture them.

To be sure, as long as fees are disclosed somewhere in the shopping process, consumers can, theoretically, calculate their true costs. But the reality is that add-on fees can be difficult to spot, requiring consumers to click through multiple web pages or scour fine print to get the information—a gradual reveal strategy that economists call drip pricing.

And few Americans today—many of them juggling jobs and families—have the time, energy, or desire to research a potential \$30 fee, says Devin Fergus, professor of history, black studies, and public affairs at the University of Missouri and author of “Land of the Fee” (Oxford University Press, 2018).

Drip pricing works, too. “Once people have spent time searching a price, they are less likely to start over when they see the fees,” says Vicki Morwitz, a professor of marketing at New York University Stern School of Business.

“They often mistakenly assume competitors will have the same fees,” she says.

That consumer inertia was demonstrated in a 2018 study using data from StubHub, the third-party ticketing agency. In 2015 StubHub ran a pricing experiment, in which one group of shoppers was shown the full ticket price up front, including fees, and a second group saw those charges only at the end, when they made a purchase. People who saw fees at the back end spent almost 21 percent more than those who received all-in prices at the start.

Following this experiment, StubHub changed its default setting to show fees at the back end, although customers still have an option to see all-in prices. “It's clear consumers want options ... so we made sure they can see prices with or without fees,” says Alison Salcedo, a spokesperson for StubHub.

Consumers also tend to make calculation errors when they add up the total cost of fees, according to a recent study by researchers at the University of Chicago and the Consumer Financial Protection Bureau (CFPB).

The researchers gave participants three options: a disclosure that added all the fees into one price, a complex disclosure that listed the price and fees separately, and a combination that listed the price and fees separately but also showed the total. Though the combo option was the most popular, most participants liked the complex presentation better than the simple all-in price, says Shannon Michelle White, the study's lead researcher.

But participants who were shown complex disclosures when trying to identify a lower-cost

Baggage and ticket-change fees brought in nearly **\$7.6 billion** in revenue to airlines in 2018. And overdraft fees earned banks more than **\$11.5 billion**.

product often failed, with roughly half choosing a more expensive product. By contrast, most of those who received all-in-one disclosures correctly identified the low-cost versions.

“Up to a point, people prefer more complexity in disclosures, which they view as more transparent,” says White. “But that preference can lead them to paying higher fees because they are also overconfident about their ability to do math.”

How to Fight Back—and Win

A few years ago, federal regulators cracked down, at least somewhat, on companies that didn’t disclose their fees up front. The 2009 Credit Card Act, for instance, required banks to disclose fee changes and interest rate hikes in advance. And in 2012, following a Federal Trade Commission conference on drip pricing, the agency sent a warning letter to hotel operators reminding them to disclose resort fees.

But in recent years, there has been little regulatory action to rein in fees. The FTC declined to comment for this article, and the CFPB did not respond to repeated requests for comment.

Still, as CR’s survey showed, consumers themselves are starting to push back. Fourteen percent of them said they had filed a complaint about fees with the company, a government agency, or the Better Business Bureau. And 16 percent said they posted comments or reviews about their experience on social media.

The first step in fighting back is recognizing fees in the first place. And with more and more Americans paying bills automatically, that doesn’t always happen. So it’s important to review your statements periodically.

“To avoid being overwhelmed, pick a bill or spending category every month, and review them for unexpected charges,” says Bob Sullivan, an independent journalist and author of “Gotcha Capitalism” (Ballantine Books, 2007). Over a year, “you’ll have a good picture of your finances, and you’ll probably catch a few surprise fees,” he says.

CR’s finance experts are pushing for reform, to make the marketplace fairer. “Fees should not be used to hide price increases,” Laitin says. “All fees consumers must pay to get a product or service should be wrapped up into the base price.”

Until that happens, though, consumers need to be vigilant. So we asked CR’s car, electronics, financial, and utility experts which sneaky fees to watch out for, and for tips on how to beat them.

The Fees & the Fixes



Airlines

Airlines started charging extra for checked bags more than a decade ago—and seem to keep finding new ways to add on more fees. That includes fees to select a seat, switch a flight, or book a ticket by phone. Adding just a few of these à la carte services can double the price of your ticket. And because charges vary among airlines, it’s hard to comparison shop. But with a little planning, you can ease the airlines’ raid on your wallet.

Baggage fees: These can run \$30 for one bag, \$40 for a second, and \$150 for a third. Budget airlines like Allegiant, Frontier, and Spirit also charge extra for carry-ons, with prices ranging from \$10 to \$75 (the highest rung is for those who pay at the airport).

The fix: Packing light and flying Southwest—which allows two free bags—are obvious solutions. But if those aren’t options, some airline-branded credit cards cover bag fees among their perks. If you fly often on one airline, see whether it offers an annual subscription plan for checked bags. And if you have lots of luggage, consider shipping your bags; it can cost less and ease the aggravation of schlepping your stuff.

Seat selection fees: The pool of “free” seats available when you book your ticket is dwindling.

And the price for a good seat, closer to the front or on an aisle, can be high: We found one as high as \$139. If you’re traveling basic economy, you may not have the option of choosing a seat at all.

The fix: The further ahead you book, the better your chances of finding a good seat at no extra charge. Flying on Tuesday or Wednesday or at less busy times of the day can also help. If you travel on Southwest, which has an open-seating policy, you can pay an additional \$15 to \$25 to board ahead of the crowd.

WiFi fees: Once airlines got WiFi to work (more or less) in-flight, most also figured out how to charge for it. We found log-on fees of around \$7 or \$8 for 1 hour to around \$20 for an all-day pass. An exception: JetBlue doesn’t charge for WiFi and is also said to have one of the best services among domestic airlines.

The fix: If you fly a lot, save by signing up for monthly packages through one of the companies that provide WiFi to U.S. airlines, such as Gogo. Or consider this road-warrior hack: Preload movies or shows so that you don’t have to pay at all. And keep in mind that WiFi service on planes is still evolving, sometimes in your favor. Delta, for example, offers free text messaging on domestic flights.

—Barbara Peterson



Banking

Many banks market their accounts as “free” but fail to mention all the fees—for out-of-network ATMs, overdrafts, monthly service charges, even paper statements—that can add up. And many of these fees are rising. In 2018, average ATM fees hit a record high for the 14th year in a row, up 36 percent compared with 2008, according to Bankrate.com. And the average overdraft fee is close to the highest it has ever been. The good news is that there are ways to avoid paying some common fees.

► MONTHLY SERVICE FEE

When your balance falls below a certain threshold, some banks charge a fee: an average of \$14.35 for interest-bearing accounts and \$5.57 for non-interest ones, according to Bankrate.

The fix: Switch to Ally Bank, Discover Bank, USAA Bank, or another one that does not charge the fee. Or ask whether your bank will waive the fee if you direct-deposit your paycheck; many will.

► ATM FEES

Failing to use your own bank for cash withdrawals can get expensive: Out-of-network ATM fees now average \$4.68, according to Bankrate.

The fix: Use your bank’s app to find a nearby in-network ATM. Or switch to a bank that covers ATM charges; about a third do.

► OVERDRAFT PROTECTION

Some banks will cover you if you make a payment for more than what’s in your account—but charge a fee for that service: about \$33 on average.

The fix: Set up alerts so that you’re notified when your balance falls below, say, \$100. And link accounts so that money can automatically transfer from savings to checking. Or just opt out of the service. But remember: In that case, your bank will decline a purchase or withdrawal larger than your balance—and can still charge you if you write a check that bounces.
—*Beth Brauverman*

‘The whole airline ticket thing is paying extra to check a bag, reserve a seat, and **whatever else they can charge** a fee for. Next thing you know, you will have to pay to use the toilet. It’s ridiculous.’



BRYAN MELMER
ROCHESTER, MINN.



Cable and Cell Phones

Sixty-nine percent of Americans who have used telecom services in the past two years say they have experienced unexpected fees, according to CR’s survey. And those fees can be extra frustrating, in part because it’s hard—though not impossible—to do something about them.

The fix: With cable, the best way to avoid fees is to cut the cord entirely and use streaming services or an antenna instead. To stream, you’ll still need internet service, but that typically comes with few fees other than \$5 to \$10 a month to rent a modem or router. And you can avoid that by buying your own equipment.

For cell-phone fees, one option is to switch to a carrier, such as T-Mobile, that folds fees into its base rate. And carriers will sometimes waive the \$30 or so charged when you change plans or buy a new phone, because it is in the company’s interest to have you upgrade.

Another step is to join CR’s effort to insist on honest pricing from telecom providers, including the full cost of the service and no hidden fees in small print. For details, see “What the Fee?!” on page 38.

When you’re complaining, it helps to understand what’s on your bill. Here are common fees you may see and, when possible, how to get out of them.

Broadcast TV fee: Cable companies say this defrays costs they pay to local networks, such as ABC and CBS. Prices range from about \$4 to \$11 a month.

Regional sports surcharge fee: This compensates cable companies for what they pay

regional sports networks—though those networks are sometimes owned by the cable companies themselves. The cost: \$7 to \$12 a month—even if you don’t watch sports.

Set-top box or receiver fees: Most cable companies charge \$7 to \$13 a month to rent the boxes needed to receive signals. Some providers, such as Optimum and Comcast, offer an app that lets you get content directly on a smart TV or streaming device without the box. Or you can avoid boxes with a device such as TiVo.

DVR service: The ability to record shows can cost \$10 to \$25 a month and is often one of the bigger fees in a cable bill. But because many channels now offer on-demand replays of popular shows, you may find that you can live without a DVR.

Administrative, regulatory, and gross surcharge fees: Charged by cell-phone carriers, these typically come to \$1 or \$2 per account or phone line. Companies say the charge offsets their expenses, like taxes and regulatory and legal costs—in other words, the cost of doing business.

Federal universal service charges: These can be up to 20 percent of your total cell-phone bill—but are for a good cause: They offset the cost of providing telecom services to people with low incomes or who live in rural communities, as well as to schools, libraries, and rural healthcare facilities.
—*Bree Fowler and James Wilcox*

A Year in Fees: One Family's Story

► AIRFARE

Four round-trip tickets to Orlando, Fla., booked on American Airlines

Ticket prices: \$437.20 each \$1,748.80

Fees

2 checked bags, \$30 each, round trip \$120

2 seat upgrades, one-way \$136

2 WiFi connections, round trip \$40

TOTAL FEES \$296

► HOTEL

Six nights at the Wyndham Grand Orlando Resort Bonnet Creek

Room cost \$1,214

Fees

Resort fee, \$35 per day \$210

Parking fee, \$22 per day \$132

TOTAL FEES \$342

► CAR RENTAL

Mazda3 from Hertz in Orlando, Fla., for 1 week with airport pickup, booked directly

Rental cost \$273.05

Fees

Privilege fee recovery charge \$28.30

Customer facility charge \$21.00

State surcharge \$12.12

Vehicle licensing fee recovery \$8.41

Energy surcharge \$1.49

PlatePass (for toll transponder) \$41.65

TOTAL FEES \$112.97

We estimated what an American family—two parents and two kids in Pittsburgh—might spend over the course of one year in fees associated with entertainment, travel, and a new car. Other fees not included here include those related to banking, credit cards, utilities, and more.

► TOTAL FEES

\$3,278.93



► BASEBALL GAMES

Four upper-level tickets to two Pittsburgh Pirates games

Ticket price: \$25.50 each (avg.) \$204

Fees

Per ticket via StubHub (avg.) \$7.10

TOTAL FEES \$56.80

► CONCERT

Four upper-level tickets to an Ariana Grande concert

Ticket price: \$214 each \$856

Fees

Service fee, per ticket \$44.94

TOTAL FEES \$179.76

► CABLE

One year of Xfinity, for cable TV

Cable service \$1,260

Fees (Monthly)

Broadcast TV fee \$10.00

Regional sports fee \$8.25

DVR service fee \$10.00

HD technology fee \$9.95

TOTAL FEES (MONTHLY) \$38.20

TOTAL FEES (ANNUAL) \$458.40

► CAR PURCHASE

2019 Honda CR-V EX

Sales price \$27,999

Fees

Licensing and registration (unavoidable) \$185

Documentation fee (negotiable) \$144

Prep fee (negotiable) \$200

Accessories: Luxcare interior and exterior protection package (can skip) \$989

VIN etching (can skip) \$200

Advertising fee (can skip) \$300

TOTAL NEGOTIABLE OR AVOIDABLE FEES \$1,833



Car Buying

Purchasing a new car is stressful enough, so it helps to go into a showroom knowing which of the charges that show up on your bill are unavoidable, which can be negotiated, and which you can skip altogether.

And remember: You have the power to walk out and shop somewhere else. That's what CR member Ron Martinson of Falls Church, Va., says he did: "I told [the salesperson] that he got one chance to give me his final/best offer, and that there would be no 'add-ons' except for government charges/taxes. He lost the deal."

Those government charges can include sales tax and the cost of establishing the title and registration in your name. Another unavoidable fee is the destination charge, or what the automaker charges for delivering the vehicle from the factory to the dealership; it's included in the official window sticker.

But you can often avoid or negotiate down other fees. And check the laws in your state, too: Some cap the fees that dealers can charge.

Documentation or conveyance charges: Though it's reasonable to pay the actual cost of your title and registration, dealers often charge extra—sometimes hundreds more—for processing those and other documents.

The fix: You may not be able to avoid this fee entirely, but you can try for a discount or ask for something in return, such as dealer-installed accessories like winter floor mats.

Advertising fee: Dealers sometimes add an extra few hundred dollars to recoup the

cost of national and regional advertising campaigns.

The fix: If the dealer says he will sell a car at the invoice price but you have to pay an advertising fee, just say no. The cost of advertising the car is baked into the sticker price.

Delivery and preparation

fees: Dealers sometimes paste a second sticker on a car's window next to the official one, listing charges with names like "pre-delivery inspection," "dealer prep," "vehicle prep," or "vehicle procurement."

The fix: Contest them all. They're part of the mandatory destination charge—which, by the way, should also include a full tank of gas.

Market adjustment fee: This is a tough one to avoid if you are shopping for a hot-seller, because dealers may have little incentive to negotiate.

The fix: Still, it's not a mandatory charge—so it's worth asking for a discount, especially because the added cost is not just an up-front expense. Paying extra initially also typically means losing more as the car depreciates.

Loan payment fees: Many automakers offer loans directly to car buyers—and a third of the people in our survey who got one of those loans said they were surprised by a fee connected to it. For example, Diane Weiser of Port Lavaca, Texas, says she was shocked to find that every time she called to make a payment, she was charged a \$10 customer-service fee. "And that was for on-time payments, too!" she says.

The fix: Make sure you understand the payment terms before you go through an automaker's financing arm. Check with your own bank, too, which may offer a better deal and lower or no fees.

Unnecessary add-ons: Though not technically fees, dealers often try to upsell unnecessary services or features, including:

- **VIN etching.** A local mechanic will charge you less for this anti-theft measure, which involves etching the vehicle identification number on the car's glass. Or buy a do-it-yourself kit for as little as \$20.

- **Extended warranty.** A warranty that covers repairs after the manufacturer's warranty expires can provide peace of mind. But it can add thousands to the cost of the car. CR recommends buying a reliable vehicle and setting aside an emergency fund instead.

- **Disability and life insurance.** Some dealers offer these and similar policies with your auto loan to help you pay for the vehicle if you are injured or die early. But you can get cheaper coverage through your primary home, car, or life insurer.

- **Rustproofing, paint sealing, or fabric protection.** Today's cars are built to withstand corrosive weather and road conditions, so they don't need additional treatments, which can add hundreds to your car. Paint sealants are basically just wax that will wear off after a few months. And the interior protection is just expensive spray-on fabric protectant.

—Jon Linkou

'My husband and I checked out of a hotel this morning. In addition to the room fee—the only fee they advertise—was a destination fee, a resort fee, and a self-parking fee. Hotels should be required to list all fees online since the invoice was **25 percent above** the advertised rate.'



JEANNE HANAHAN
TORRANCE,
CALIF.

64%

PAYING MORE NOW
IN UNEXPECTED OR
HIDDEN FEES THAN
FIVE YEARS AGO

63%

DIDN'T BUY SOMETHING OR SIGN
UP FOR A SERVICE IN PAST TWO
YEARS BECAUSE OF UNEXPECTED
OR HIDDEN FEES*

*Among respondents who encountered a hidden or unexpected fee in the service in the past two years. **Source:** October 2018 Consumer Reports nationally representative survey of 2,057 U.S. adults.



Car Rental

It's not just the extra "drop off charges" when you return a car to a different location from where you picked it up. Car rental companies also charge fees for everything from gas to tolls to GPS.

► TOLL TRANSPONDERS

Rental companies often charge extra for the privilege of using their transponder, the thing you stick on your window or dash that lets you pass quickly through tolls.

The fix: Before you opt for one, make sure you'll be driving on toll roads. If you are, consider using Waze or Google Maps and click "avoid toll routes." Or if you have a transponder on your car at home, check whether you can bring it with you and whether it will work where you're traveling. Also check whether the rental company will charge a separate fee for using it.

► PREPAID FUEL

You'll almost always pay a premium when you prepay for fuel.

The fix: Ask the car rental staffer where the closest gas station is to your location, and plan for extra time to return with a full tank.

► FACILITY CHARGES

Some rental companies pass along fees from the airport where you pick up your car, which can range from a few dollars to \$10 or more a day. Some call it an "airport concession fee" or "concession recovery fee."

The fix: Though it may not be convenient, you can avoid the fee—and sometimes get a lower rate overall—by renting from an office a few miles away from the airport.

► ADDITIONAL INSURANCE

This extra charge can often be avoided, because your personal auto insurance, or the credit card you use to pay for the rental, may provide coverage.

► ADDED EXTRAS

Before opting for GPS, satellite radio, or another extra, check the cost—and make sure you really need that addition.
—Aimee Picchi



Credit Cards

Sometimes credit cards can help you beat fees by, for example, letting you use cash-back points to cover checked airline luggage. But they also come with their own set of annoying extra charges. Though it's easy to find cards that don't charge annual fees—only about a quarter did in 2018—it can be hard to avoid some other credit card fees.

Late payments: Credit cards often punish people for failing to pay the minimum due on time, with late payment fees as high as \$38 in 2018, according to Creditcards.com.

The fix: There are a few cards—such as the Citi Simplicity and the PenFed Promise Visa—that don't charge the fee. (For the PenFed card, you will need to join the credit union.) Better yet, don't be late. Sign up for automatic minimum payments or put reminders on your phone or calendar.

Balance transfers: It can sometimes be smart to transfer the balance on one card to another one with a lower rate—though the cost for that can be steep: 3 to 5 percent of the transfer amount.

The fix: Sign up for a card, such as the BankAmericard for Students or Slate from Chase,

that doesn't charge for transfers in the first 60 days of card membership.

Cash advances: Using your credit card to get cash isn't a great idea, because you have to start paying interest right away and there's often a fee of 2 percent to 5 percent of the borrowed amount.

The fix: One card that doesn't have that fee is the PenFed Promise Visa.

Foreign transactions: Using your card outside the U.S. typically comes with a fee of 3 percent of the transaction amount, according to Creditcards.com.

The fix: Use a travel rewards card, such as the Capital One VentureOne credit card, which doesn't charge these fees.

—Nikhil Hutheesing



Hotels

Being nicked-and-dimed by unexpected hotel fees is a frequent complaint among modern-day travelers: Hundreds of consumers wrote to us about paying extra for everything from safes they never opened to newspapers they never read to, in at least one case, even bathroom towels.

Because third-party websites that let you compare multiple hotels at once don't always show all the fees you might have to pay, it's often worth doing some extra homework.

The fix: Start by checking hotel websites directly, which sometimes list the fees they typically charge.

But call the hotel, too, to get a full tally of fees and to ask about waivers for services you know you'll never use. That is more likely to work if you call before checking in—and if you get the name of the hotel staffer you talked with in case of disputes later.

Two other options: Check fees at specific hotels at ResortFeeChecker.com and consider joining a hotel loyalty program. "Pearl" level members of MGM Resorts' loyalty program get complimentary self-parking, and "Gold" members of the Wyndham Rewards program don't have to pay extra for late checkouts.

Here's a sampling of some hotel fees you might encounter.

Resort fee: This charge—which typically covers access to things like swimming pools or gyms, even if you never jump in or break a sweat—are a particularly common gripe. The charge averaged

about \$27 a day in 2018, according to the American Hotel & Lodging Association.

Parking fee: Some hotels charge this even if you park yourself, as Jeanne Hanahan of Torrance, Calif., discovered. That fee, plus others, ended up making her total bill "25 percent above the advertised rate," she says.

Safe fee: This is an extra charge for that thing hidden in hotel room closets that many people never use—and some don't even realize is there. The charge is sometimes just a few dollars but is a particularly maddening one, consumers told us.

Online reservation or booking fees: Patricia Daugherty of Aurora, Ill., told us that after a three-day stay at a hotel, she was surprised to find a \$25 per night fee charged because she had booked her reservation online. "Needless to say, I submitted a review reflecting my disappointment with the billing practice," she says. And Robert Jasinski of Eureka Springs, Ark., says he was surprised by a reservation fee he had to pay at a Colorado hotel whether he reserved the room online or on the phone.

WiFi fees: Though many hotels now provide free internet, you may have to pay a premium for high-speed connections. That's what Roger Bhalla of Cypress, Texas, says happened to him during a trip to San Francisco. "So apparently the WiFi wasn't free after all!" he says.

—Beth Braverman



Investments

This is one area of your financial life where fees are actually dropping. Financial service companies competing for customers have slashed their fees, especially for index funds. But you still need to be wary: Some services remain costly, and even small fees can, over time, cut big-time into your investments.

► ACCOUNT MANAGEMENT

The average annual fee, or expense ratio, for mutual funds is now just 0.52 percent, but some charge twice that amount.

The fix: Opt for low-cost index funds from firms such as Fidelity, Schwab, or Vanguard that have fees of 0.20 percent or less. Or consider exchange-traded funds (ETFs), which may charge 0.10 percent or less. Over the long run, that could boost your nest egg by hundreds of thousands of dollars.

► SALES CHARGES

Brokers may be more likely to pitch investments with

high up-front sales charges of 2 percent or more, and to have offerings with other fees, such as account maintenance fees, that could run \$100 or more a year.

The fix: Consider a "robo-advisory firm" such as Betterment or Wealthfront—computer-driven services that design and manage a portfolio for 0.25 percent. Or opt for a low-cost target-date retirement fund, which provides a mix that becomes more conservative as you near retirement.

► ADVICE

Many financial advisers levy an annual fee of 1 percent of your assets—on top of fund expense ratios.

The fix: Hire a certified financial planner who charges by the hour or a flat fee. Find lists of such advisers through the National Association of Personal Financial Advisors (napfa.org) or the Garrett Planning Network (garrettplanningnetwork.com).
—Carla Fried

What the Fee?!

NO MORE
HIDDEN FEES.
PERIOD.



Utilities

'After you choose a seat that is within your budget, you are likely to be in for a nasty surprise upon checkout. For our "Phantom of the Opera" tickets, this fee increased the price from **\$105** to **\$122.75** per ticket!'



**DEBORAH
HAMILTON**
PORTLAND,
ORE.

There are several parts to your utility bill, including the supply charge (for the electricity or gas you actually use) and a fixed fee (which you pay before the meter even starts running). If you're like many Americans, you may be trying to save money on your supply charge by being more energy-efficient. The problem: Some utility companies are trying to compensate for the lost income by jacking up fixed fees.

Consider John Skelly, a retired physical therapist in Valley Cottage, N.Y. He has switched to LED lightbulbs and energy-efficient appliances, and even installed solar panels. But, he says, "My gas and electric company charges \$20 per month in fixed charges for each utility, regardless of how much energy I use and even if I use none at all."

Such fees are becoming more common. From 2015 to 2018, utilities made 158 proposals to state utility commissions to impose or increase fixed fees, according to Samantha Williams, who tracks the issue for the Natural Resources Defense Council.

And 31 utilities in 18 states asked for an increase of at least 100 percent.

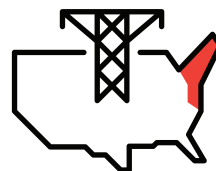
They appear near the top of the list of unexpected fees that Americans experienced, according to CR's recent survey.

But relief may be on the way, Williams says: "Last year, state energy commissions rejected 38 percent of fixed fee hike proposals." That's up from 25 percent in 2017.

The fix: In most places you can't shop around for your gas or electricity, so your best option is to demand that your public service commission reject utilities' proposed fee hikes. Do that by contacting the commission in your state, signing a petition, or attending a public hearing.

"Utilities may think they can get away with raising customer fees, but they won't if you speak up," says Shannon Baker-Branstetter, CR's senior policy counsel for energy and environment.

—Mary H.J. Farrell



AMERICANS WHO
EXPERIENCED HIDDEN
OR UNEXPECTED UTILITY
FEES IN THE PAST
TWO YEARS

48%

NORTHEAST

39%

REST OF COUNTRY

Consumer Reports is working with Americans across the country to encourage companies, regulators, and lawmakers to end hidden fees. We believe all mandatory fees should be included in the base price, and add-on fees should be reasonable and disclosed up front.

Together, we are making progress. In

South Carolina, consumers helped scale back a 238 percent proposed hike in "fixed fees" on utility bills. As the Federal Trade Commission looks into online event ticket sales, more than 6,000 consumers weighed in with their stories and concerns about the fees. More than 130,000 of you signed a CR petition protesting the

cable industry's billing practices. And several members of Congress noticed, introducing the TRUE Fees Act, requiring cable and internet companies to include all charges in the advertised price.

Want to help end the fee economy? Go to [WhatTheFee.com](https://www.WhatTheFee.com) to report unexpected fees or share how you fought back.



Smart Summertime Solutions

Honda
HRX217K6VKA
Gas Self-
Propelled
Mower
\$600

83 OVERALL
SCORE



Ego
LM2142SP
Battery
Self-Propelled
Mower
\$750

79 OVERALL
SCORE



PART 1

Mowers
& Tractors

PART 2

Sunscreens

PART 3

Insect
Repellents

A Cut Above

A lush lawn is achieved with a combination of the right tools and strategies. Use our ratings of 7 types of lawn mowers and our expert advice on maintenance to help make your green dreams come true.

BY DANIEL WROCLAWSKI



John
Deere
E130
Lawn
Tractor
\$2,000

86 OVERALL
SCORE

AMERICANS HAVE LONG had a love-hate relationship with their yards. Curb appeal and a backyard oasis are considered must-haves for 79 percent of Americans when buying or renting a home, but it costs time and money to maintain a lawn. In fact, it's the second most important consideration, right behind a newly updated kitchen.

Here, our expert guide to the key tools to have and steps to take.

GO GREEN OUT OF THE GATE

By May and June, you should have removed leaves and debris, seeded new grass, and fertilized. Getting a late start? If you live in a northern state, says turfgrass specialist Frank Rossi, Ph.D., at the Cornell University Turfgrass Program in New York, you have an opportunity the rest of the

country lacks: "You can still put some seed down in June," Rossi says. And you still have time to fertilize, which will help mitigate invasive crabgrass. "Get your grass thick and you'll solve 85 percent of your crabgrass problem without ever using a chemical," Rossi says. Water and mow regularly.

In southern and western states, it's too late to plant new grass; keep your grass growing through proper watering and mowing. "In general, when you get out west of the Mississippi, it's all about supplying water for adequate growth if it doesn't rain and just keeping the grass mowed," Rossi says.

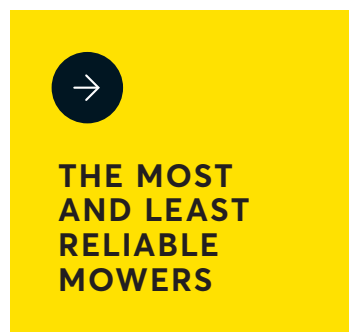
WATER WISELY

To keep your lawn hydrated, "water deeply but infrequently," Rossi says. Programming your sprinkler system

to run every day can lead to disease and weed problems.

For more watering precision, Rossi recommends purchasing a soil moisture sensor. These come in two varieties: simple meters you stick in the ground, and wireless sensors that beam data and insights to a smartphone app. Either will indicate whether your lawn needs more water to adequately support plant life.

"Think of the sprinkler as a tool to bridge you until the next rain event," says Jason Henderson, Ph.D., an associate professor of turfgrass and soil sciences at the University of Connecticut in Storrs. Focus watering on wilted areas, running sprinklers for 15 to 20 minutes in each area. Repeat the process in 30 minutes if the soil is not wet 4 to 6 inches down.



We asked CR members about their experiences with more than 30,000 walk-behind mowers and 12,000 riding mowers. Here's a look at how 24 brands stack up, across the six most widely sold mower types. (If a brand receives an unfavorable reliability rating of Fair or Poor for a given category, its models in that category cannot be recommended by CR.)

Not all the brands here sell mowers in each category. And for certain brands, we don't have sufficient data to assign a rating.

BRAND	GAS PUSH	GAS SELF-PROPELLED	LAWN TRACTOR	ZERO-TURN-RADIUS	BATTERY PUSH	BATTERY SELF-PROPELLED
ARIENS		✓	✓	✓		
BLACK+DECKER					✓	✓
BOLENS	✓					
CRAFTSMAN	✓	✓	✓	✓	✓	
CUB CADET	✓	✓	✓	✓		
EARTHWISE					✓	
EGO					✓	
GREENWORKS					✓	
HONDA	✓	✓				
HUSQVARNA	✓	✓	✓	✓		
JOHN DEERE			✓	✓		
KOBALT					✓	
LAWN-BOY	✓	✓				
MURRAY	✓		✓			
NEUTON					✓	
POULAN PRO	✓	✓	✓	✓		
REMINGTON	✓	✓				
RYOBI					✓	✓
SIMPLICITY			✓			
SNAPPER	✓	✓	✓	✓		
TORO	✓	✓		✓	✓	
TROY-BILT	✓	✓	✓	✓		
WORX					✓	
YARD MACHINES	✓	✓	✓			

PREVIOUS SPREAD, PHOTOS: JOHN WALSH/CONSUMER REPORTS. ICONS: ELIAS STEIN

MOW THE RIGHT WAY

To get the best results from your mower, “sharpen your mower blade at least once a year,” says Frank Spinelli, CR’s lawn mower test engineer. Mowing grass with a dull blade will tear the grass and injure it.

Take the blade to a hardware store or repair shop and have a professional sharpen it. The service typically costs between \$5 and \$15. (Or purchase do-it-yourself sharpening tools for about \$10.)

When it comes time to cut, follow the 30 percent rule. “Never cut off more than 30 percent of the leaf tissue when you mow,” Rossi says. Keep the grass about 3 inches in length because this will allow the roots to grow deep into the soil. What does that look like in terms of frequency? You might end up mowing once every two weeks when growth slows in the hot summer months.

“Let the mower discharge the clippings back onto the lawn, so it can absorb their nutrients,” Henderson says. Those clippings contain a lot of nitrogen—one of three important elements in fertilizer. At the end of each cutting session, wash out the underside of the mower’s cutting deck, which houses the blade. Certain mowers come with a washout port that allows you to connect a garden hose for easy cleaning.

SHOW YOUR MOWER SOME TLC

“If you keep your oil and air filter clean, blades sharp, and replace spark plugs when needed, you’ll find that lawn mowers are almost indestructible,” says Kris Kiser, president and CEO of the Outdoor Power Equipment Institute, an industry group.

But even if your trusty mower is plugging along, you might want to consider an upgrade. “A machine bought today is going to be safer and run cleaner and more efficiently than one bought 20 years ago,” Kiser says.



How to Assess a Lawn Care Service

In 2017, annual spending on lawn care services hit its highest point in 10 years. More homeowners are hiring companies—from local outfits to national firms, such as TruGreen and Lawn Doctor—to develop and maintain their landscaping, to the tune of hundreds of dollars per month over three seasons a year.

When searching for a company, consider your lawn’s problem areas. Maybe weeds have taken over or some unknown blight is attacking your shrubbery. Lawn care companies give your lawn a “health” checkup and prescribe a treatment plan.

That often starts with a soil analysis, says Eric A. Brown, Ph.D., director of agronomy for Massey Services, a pest control and lawn care company based in Florida. If a pro suggests testing the soil and checking its acidity, Brown says, it’s a good indicator that he knows what he’s doing. “They should also look at your plants to note, for example, if they’re in the right place for the conditions.” And he says a pro should determine whether your current irrigation system is getting the job done.

Before hiring anyone, Jason Henderson, Ph.D., associate professor of turfgrass and soil sciences at the University of

Connecticut, recommends that you ask a professional about her credentials. Does she have a formal education in turfgrass science or agronomy (the science of soil management)? What does she do for continuing education, or how does she stay current with today’s best practices? You should also ask whether she’s active in any professional organizations, such as the National Association of Landscape Professionals.

The NALP also advises asking neighbors for references and making sure a company is licensed if that’s a requirement in your state. Certain states have online databases you can search to find out whether a company or an individual is legitimate.

Get bids from multiple companies. The bids should detail the services they recommend for your lawn and the associated prices. And don’t necessarily go for the lowest price.

“You want a lawn service that’s going to customize what you want rather than just trying to put a square peg in a round hole,” says Frank Rossi, Ph.D., turfgrass specialist at Cornell University. “Ask them if they’re going to be flexible about the services they provide.”

Ratings ➤ **Making the Cut** These walk-behind and riding mowers represent the very top tier of our ratings: CR Best Buys and other recommended models.

			Brand & Model	Overall Score	Price	Survey Results		Test Results						
	Recommended	Rank				Predicted reliability	Owner satisfaction	Side-discharging	Mulching	Bagging	Evenness	Handling	Noise at ear	Noise at 25 feet



GAS PUSH MOWERS

Gas push models are less expensive and have a practically unlimited run time compared with their battery counterparts. On the other hand, they're noisier and require oil changes and regular tuneups.	✓	1	Honda HRR216PKA	75	\$430	↑	↑	↓	↑	↑	↑	↑	↓	↓
	✓	2	Cub Cadet SC100 H	70	\$300	↑	↑	↑	↑	↓	↑	↑	↓	↓
	✓	3	Troy-Bilt TB160 XP	69	\$280	↑	↓	↑	↑	↓	↑	↑	↓	↓
	\$	4	Troy-Bilt TB110	67	\$220	↑	↓	↑	↑	↓	↑	↑	↓	↑
	✓	5	Toro Recycler SmartStow 21329	66	\$300	↓	↓	↑	↑	↑	↑	↑	↓	↓

GAS SELF-PROPELLED MOWERS

Powered wheels make self-propelled mowers easier to maneuver on larger yards and sloped land. Gas self-propelled mowers, which typically cut 21- or 22-inch swaths in one pass, often come with convenience features, such as variable drive speeds and electric start. (The wide-deck models below both have 33-inch decks.)	✓	1	Honda HRX217K6HZA	86	\$850	↑	↑	↓	↑	↑	↑	↑	↓	↓
	✓	2	Honda HRX217K6VKA	83	\$600	↑	↑	↓	↑	↑	↑	↑	↓	↓
	✓	3	Honda HRR216VYA	82	\$500	↑	↑	↓	↑	↑	↑	↑	↓	↑
	✓	4	Honda HRR216VLA	80	\$500	↑	↑	↓	↑	↑	↑	↑	↓	↑
	\$	5	Honda HRR216VKA	79	\$400	↑	↑	↓	↑	↑	↑	↑	↓	↓
	✓	6	Toro Super Recycler 21381	73	\$550	↓	↑	↑	↑	↑	↑	↑	↓	↓
	✓	7	Cub Cadet SC 700h	71	\$550	↓	↑	↑	↑	↑	↑	↑	↓	↑
	✓	8	Cub Cadet SC 900	70	\$450	↓	↑	NA	↑	↑	↑	↑	↓	↓
	✓	9	Honda HRS216K6 VKA	70	\$400	↑	↑	↑	↑	NA	↑	↑	↓	↑
	✓	10	Toro Recycler SmartStow 20340	68	\$400	↓	↑	↑	↑	↑	↑	↑	↓	↓
	✓	11	Toro Recycler 20333	67	\$400	↓	↑	↑	↑	↑	↑	↑	↓	↓
	✓	12	Toro PoweReverse Recycler SmartStow 20355	67	\$450	↓	↑	↑	↑	↑	↑	↑	↓	↓

GAS WIDE-DECK SELF-PROPELLED MOWERS

	\$	1	Troy-Bilt TB WC28	73	\$850	↓	↓	↑	↑	↑	↑	↑	↓	↓
	✓	2	Toro TimeMaster 21199	73	\$1,000	↓	↑	↑	↑	↑	↑	↑	↓	↓

LAWN TRACTORS

With 42- to 54-inch cutting decks, tractors cut two to three times faster than push mowers. Models with hydrostatic transmissions require no gear shifting and drive just like automatic cars.	✓	1	John Deere X350-42	90	\$3,200	↑	↑	↑	↑	↑	↑	↑	↓	↓
	✓	2	John Deere S240-48	89	\$2,600	↑	↑	↑	↑	↑	↑	↑	↓	↓
	✓	3	John Deere E160	89	\$2,300	↑	↑	↑	↑	↑	↑	↑	↓	↓
	\$	4	John Deere E130	86	\$2,000	↑	↑	↑	↑	↓	↑	↑	↓	↓
	\$	5	John Deere E140	85	\$2,000	↑	↑	↑	↑	↓	↑	↑	↓	↓
	✓	6	Husqvarna TS 354X	80	\$3,500	↑	↓	↑	↑	↑	↑	↑	↓	↓



LAWN TRACTORS, ZERO-TURN

Zero-turn-radius lawn tractors use a pair of levers instead of a steering wheel to turn on a dime, but the lever controls require practice. These mowers easily maneuver around obstacles, such as trees and flower beds, and typically offer 42- to 54-inch cutting decks.

		Brand & Model	Overall Score	Price	Survey Results		Test Results							
Recommended	Rank				Predicted reliability	Owner satisfaction	Side-discharging	Mulching	Bagging	Evenness	Handling	Noise at ear	Noise at 25 feet	
👇	1	John Deere Z345R-42	85	\$2,800	👍	👍	👍	👍	👍	👍	👍	👎	👎	
👇	2	Toro MyRide TimeCutter MX5075 74768	84	\$4,000	👍	👍	👍	👍	📄	👍	👍	👎	👎	
💰	3	Toro TimeCutter SS4225 74726	83	\$2,500	👍	👍	👍	👍	👍	👍	👍	👎	👎	
💰	4	John Deere Z335E-42	83	\$2,500	👍	👍	👍	👍	👍	👍	👍	👎	👎	
👇	5	John Deere Z375R-54	83	\$3,500	👍	👍	👍	👍	NA	👍	👍	👎	👎	
👇	6	John Deere Z355E	83	\$2,900	👍	👍	👍	👍	NA	👍	👍	👎	👎	
👇	7	Toro MX5000 74773	82	\$3,000	👍	👍	👍	👍	📄	👍	👍	👎	👎	
👇	8	Craftsman Z530	79	\$2,700	👍	👎	👍	👍	👎	👍	👍	👎	👎	
👇	9	Cub Cadet RZT SX 42	76	\$3,000	👎	👍	👍	👍	👎	👍	👍	👎	👎	
👇	10	Cub Cadet Ultima ZT2-50	76	\$3,700	👎	👍	👍	👍	NA	👍	👍	👎	👎	



BATTERY PUSH MOWERS

Rechargeable lithium-ion battery packs power these walk-behind mowers. That limits their run time but offers many benefits, including a push-button start and no exhaust emissions. They run more quietly than gas models, too.

		Brand & Model	Overall Score	Price	Survey Results		Test Results									
Recommended	Rank				Predicted reliability	Owner satisfaction	Side-discharging	Mulching	Bagging	Evenness	Handling	Run time	Charge time	Noise at ear	Noise at 25 feet	
\$	1	Ego LM2101	71	\$400	🟡	🟢	🟢	🟢	🟡	🟢	🟢	🟡	🟢	🟢	🟢	
👍	2	Ego LM2002	68	\$400	🟡	🟢	🟡	🟡	🟡	🟢	🟢	🟡	🟢	🟢	🟢	
👍	3	Stihl RMA 510	67	\$550	—	—	🔴	🟡	🟡	🟢	🟢	🟡	🟢	🟢	🟢	
👍	4	Ryobi RY40180	61	\$300	🟢	🟢	NA	🟡	🟡	🟢	🟢	🟡	🔴	🟢	🟢	
👍	5	Echo CLM-58V4AH	61	\$520	—	—	NA	🟡	🟡	🟢	🟢	🟢	🟢	🟡	🟢	
👍	6	GreenWorks MO60L410 [Item# 725987] (Lowe's)	61	\$430	🟡	🟢	🔴	🟡	🟡	🟢	🟢	🟡	🔴	🟢	🟢	

BATTERY SELF-PROPELLED MOWERS

These walk-behinds divert some battery power to propel the wheels forward. Certain models (not listed here) can't cut as much grass per charge.

✓		1	Ego LM2142SP	79	\$750	—	—	✓	✓	ⓘ	✓	✓	✓	ⓘ	✓	✓
\$		2	Ego LM2102SP	79	\$550	—	—	✓	✓	ⓘ	✓	✓	✓	✓	✓	✓
✓		3	Kobalt KMP 6080-06 (Lowe's)	71	\$570	—	—	✓	ⓘ	ⓘ	✓	✓	✓	ⓘ	✓	✓
>		All-Access and Digital members can find the latest, complete ratings at CR.org/mowers .														

HOW WE TEST: We evaluate how well the mower performs in three cutting modes: **Side-discharging**, **Mulching**, and **Bagging**. ("NA" means feature is not available.) **Evenness** is how evenly the mower cuts. **Handling** denotes ease of

operating the controls, maneuvering, and more. **Noise at ear** is measured in decibels. Measurements over 85 decibels (which earn the mower a Fair or Poor rating) require hearing protection. **Overall Score** combines test results with survey data for

predicted reliability and owner satisfaction. **Predicted reliability** estimates the likelihood that newly purchased models from a given brand will develop problems or break within the first five years. **Owner satisfaction** reflects the proportion

of CR members who are extremely likely to recommend the lawn mower they bought. In cases where we have insufficient survey data to provide a brand-level rating, indicated by a gray dash (—), we assume the model has average reliability and satisfaction.





Smart
Summertime
Solutions

Is Your Sunscreen Safe?

The FDA is bringing a new level of scrutiny to ingredients in sunscreens, but the jury is still out on what changes may result. So the best way to be protected—no matter what your skin tone—is to use CR's ratings to find the most effective products and to adopt other sun-safety habits.

BY SALLY WADYKA

THIS SEASON, THERE'S some big news in the world of sunscreen. For the first time in 20 years, the Food and Drug Administration has proposed new ways for sunscreen to be regulated. If these rules—which include possible restrictions on the ingredients allowed in sunscreens as well as on the types of products on the market—are enacted, it could affect how you choose to protect your skin.

While none of these proposals have been finalized, they have ignited debates about the safety and effectiveness of sunscreens and the proper way to use them. “Even if the various changes aren’t eventually enacted, the FDA’s proposal raises points that consumers need to be aware of,” says Don Huber, director of product safety at Consumer Reports. The FDA’s updated rules aim to correct some issues that CR has previously expressed concern about, such as the accuracy of a sunscreen’s listed sun protection factor (SPF) and the safety of spray sunscreens. (See “**The Sunscreen of the Future,**” on page 49.)

SHINING A LIGHT ON SAFETY

The FDA's new proposal came as a result of the Sunscreen Innovation Act, passed by Congress in 2014. The act required a new process for evaluating the safety and effectiveness of sunscreens. The part of the plan that has generated the most buzz is the FDA's call for the sunscreen industry to provide more information on 12 common chemical active ingredients, including avobenzone, homosalate, octinoxate, octisalate, octocrylene, and

oxybenzone. These can be absorbed through the skin, and some experts are concerned that the chemicals may lead to hormonal disruption, reproductive problems, and skin cancer.

"This request for additional data does not mean that the FDA has concluded that these 12 ingredients are unsafe," says Theresa Michele, M.D., director of the division of nonprescription drug products at the FDA. "The goal here is to get the data and validate the safety and

effectiveness of all these ingredients."

The FDA has long classified these ingredients as "generally recognized as safe and effective" (GRASE), a designation indicating that the ingredient doesn't need to be approved by the FDA to be used in a product. But the way consumers use sunscreen has changed over the years. "People now use sunscreen more often," says Henry Lim, M.D., a dermatologist at Henry Ford Hospital in Detroit and former president of the American Academy of Dermatology. "That raises the question of whether ingredients that were thought to be safe when used occasionally—once or twice a week at the beach or pool, for instance—could be harmful in larger daily doses."



SAVING FACE

Sunscreens labeled as being for your face protect your skin exactly the same way—with the same active ingredients—as sunscreens for the body do. But these products are formulated to suit those with special facial skin concerns. For example, many are oil-free, which is a help to those with oily or acne-prone complexions. Oil-free products are also usually lighter, which allows them to be used under makeup without feeling greasy.

In addition, facial sunscreens often have no fragrance or just a light scent. Fragrances are one of the major causes of skin irritation, so that's a plus if you have sensitive skin.

But whether you use a face sunscreen, a body sunscreen, or a moisturizer with SPF, you need to follow these tips to make sure you're fully covered.

Use enough.

A fingertip-sized blob won't do. You need a teaspoon-sized blob to properly cover your face and neck.

Don't count on moisturizers or makeup with SPF.

You probably don't apply enough of either to protect your skin. In a new study published in the journal *Plos One*, study participants who used SPF moisturizer were more likely to miss areas around the eyes—a common site for skin cancer—than when they used a regular sunscreen. As for makeup, it's almost impossible to use enough to get effective coverage from SPF foundation without looking like you've applied a mask. "People don't apply foundation evenly, they don't apply it everywhere, and they don't apply enough for it to be adequate protection on its own,"

says Jeanine Downie, M.D., a dermatologist and an assistant attending physician at Mountainside Hospital in Montclair, N.J., and Overlook Hospital in Summit, N.J. Also worth noting: SPF isn't cumulative. Using an SPF 15 foundation on top of an SPF 15 moisturizer does not add up to SPF 30.

Reapply.

Sunscreens need to be reapplied every 2 hours to continue to be effective. "Even if you're just sitting in your office all morning, it's inactivated in a couple of hours," says Macrene Alexiades, M.D., Ph.D., an associate clinical professor of dermatology at the Yale School of Medicine in New Haven, Conn. So reapply before heading out at lunch. If you don't want to mess up your makeup, keep a wide-brimmed hat at your desk and put it on before you go outside.

OXYBENZONE QUESTIONS

Of the 12 chemical ingredients under review, oxybenzone is possibly the most concerning. Researchers have found detectable levels of oxybenzone in human blood and breast milk. And there is some evidence that it can harm coral reefs. But it might not be the only sunscreen ingredient to do so: One study, for example, found that the "natural" ingredient zinc oxide could cause coral damage as well.

The American Academy of Pediatrics (AAP) advises parents to avoid using sunscreens with oxybenzone on children, if possible. "Studies in laboratory animals and other laboratory studies show that this chemical can mimic the actions of hormones that naturally occur in the human body," says Sophie J. Balk, M.D., an attending pediatrician at the Children's Hospital at Montefiore in the Bronx, N.Y., and a member of the AAP Council on Environmental Health.

Still, none of this means oxybenzone has been found to be unsafe. "We do know that the chemical is absorbed into the bloodstream, but we don't know exactly what, if any, effects it's having," says Steven Q. Wang, M.D., director of dermatology and dermatological surgery at Memorial Sloan Kettering Cancer Center in Basking Ridge, N.J.



The Sunscreen of the Future

If the Food and Drug Administration's proposed sunscreen rules take effect, consumers will see some changes on labels and in the types of products available. Here's what is under consideration.

SPF CLAIMS WILL BE CAPPED AT 60+

Sunscreens with an SPF of 75 to 100 may lead consumers to think that they can stay in the sun longer or that they don't need to reapply. But the FDA

says there is no data showing that SPFs higher than 60 are more protective. In addition, sunscreens would not be able to be formulated with an SPF higher than 80. Sunscreens between SPF 61 and SPF 80 wouldn't be able to use the higher number on the label; all would be labeled SPF 60+.

Some experts think that higher SPFs help to compensate for "user error." "People don't apply the same amount of sunscreen that's used when

companies are testing the SPF," says Henry Lim, M.D., a dermatologist at Henry Ford Hospital in Detroit. That means a product labeled SPF 30 might deliver only SPF 15. Still, SPF 60+ should be enough to overcome less-than-ideal user application.

NEW TESTS WILL BE REQUIRED

Under the FDA's proposal, sunscreen manufacturers will have to give their sunscreens the lowest SPF their tests show within a range. For example, a sunscreen that tests between 40 and 49 would be required to be labeled SPF 40. In CR's tests, many sunscreens fell short of their advertised SPF. "We strongly support this part of the proposal because it will help cut down on the times when manufacturers promise more protection than they can deliver," says William Wallace, manager of home and products policy at Consumer Reports.

In addition, the requirements for labeling a sunscreen "broad spectrum"—which means the product protects against ultraviolet A and B rays—will be strengthened. Even among products that qualify as broad-spectrum by the FDA's current standards, the actual levels of UVA protection vary greatly. (That's why CR rates a sunscreen's level of UVA protection.) "The problem is that as the SPF of a product goes up, it's not a given that the UVA coverage also increases,"

says CR's Don Huber. Indeed, under current FDA rules you could have a broad-spectrum SPF 15 with better UVA coverage than a broad-spectrum SPF 30.

CERTAIN PRODUCT TYPES COULD BE ELIMINATED

If the proposed changes take effect, certain forms of sunscreen products will no longer be available. These include SPF wipes, towelettes, body washes, and shampoos, and possibly sunscreen-insect repellent combinations. Because sunscreen needs to be applied and reapplied liberally, using a combo product could expose you to too much of the active ingredient in the insect repellent. Or the interaction of sunscreen active ingredients with repellent active ingredients could enhance the absorption of one or both.

Sunscreen sprays and powders will also come under more scrutiny. Sprays can be flammable until they dry, and the FDA is proposing that manufacturers test the drying time and label products accordingly. Sprays would also be subject to new restrictions on the size of the particles in them to help to minimize the risks of inhalation. "For this reason, CR recommends not using spray sunscreens on kids unless no other product is available," Huber says. Powdered sunscreens will face similar restrictions on particle sizes, and the FDA is asking for more data on their safety and effectiveness.

"This ingredient has been used in sunscreen for 40 years," Wang says. And he says that to date, no human studies have found evidence of harm.

All of CR's recommended lotions and sprays contain oxybenzone—for important reasons. "Our ratings are based on a sunscreen's ability to filter out UVA and UVB rays, and on how closely the tested SPF matches

the SPF on the label," Huber says.

"Oxybenzone is a very good UVA filter, and it also helps to stabilize other active ingredients, so they remain effective longer than they otherwise would." Still, in our ratings, there are 13 oxybenzone-free sunscreens that, although not top scorers, do provide very good overall protection. We've highlighted them in our ratings, on page 51.

SHOULD YOU GO NATURAL?

If chemical ingredients are being scrutinized, you may think the solution is to switch to a "natural" sunscreen that contains only the mineral active ingredients titanium dioxide and/or zinc oxide. Indeed, the FDA isn't currently questioning the safety and effectiveness of these ingredients.

But in CR's testing, mineral

sunscreens consistently underperform. None of the 17 mineral sunscreens in our current ratings scored high enough to receive a recommended designation from CR, or even to get an Overall Score of Very Good. “We think you will get the best sun protection by choosing one of our high-scoring products,” Huber says. However, for those who want to use a mineral sunscreen, our tests show that California Kids #Supersensitive Lotion SPF 30+, Badger Active Natural Mineral Cream SPF 30 Unscented, and Goddess Garden Everyday Natural Lotion SPF 30 offer some protection, although not as much as our top-rated products.

OTHER PROTECTIVE STRATEGIES

Despite the FDA’s concern about sunscreen ingredients, one thing is clear: It’s absolutely vital that you continue to use sunscreen when heading outside. “There is overwhelming evidence that sunscreen protects against skin cancer and other harmful effects of the sun, so consumers need to continue to use it while scientists do more research on the safety of its ingredients,” Huber says. (See our map, on page 14, to see where melanoma rates are on the rise.)

One way to minimize any potential problem with oxybenzone (or any other sunscreen ingredient) is to cover up—something everyone should be doing anyway. “Your sun protection plan should never be just about sunscreen,” says Mona Gohara, M.D., associate clinical professor of dermatology at the Yale School of Medicine in New Haven, Conn. Even if you apply enough (1 ounce, or a shot-glassful, to cover your whole body) and reapply consistently (every 2 hours or right after you get out of the water), no sunscreen blocks 100 percent of ultraviolet rays. And covering up—wearing long sleeves and a hat, for instance—leaves fewer exposed areas to apply sunscreen to, so you use less. Along with seeking the shade and staying out of the sun during peak hours, it’s a good, healthy practice.



HOW TO SPEAK SUNSCREEN

The language on sunscreen labels can be hard to decipher. But to ensure the best sun protection, it’s important to know exactly what you’re getting. “Much of what you see on the label is marketing, which can make it difficult to decode what’s truly meaningful,” says Joshua Zeichner, M.D., director of cosmetic and clinical research at Mount Sinai Hospital in New York City. Here, what some of the most common terms on your sunscreen label really mean.

SPF

This stands for “sun protection factor.” It measures only how well the sunscreen protects from UVB rays (the ones primarily responsible for sunburn). SPF 15 blocks 93 percent of UVB rays, SPF 30 blocks 97 percent, and SPF 50 blocks 98 percent.

BROAD SPECTRUM

Seeing this term—which is regulated by the Food and Drug Administration—on the label means the product contains ingredients that help to shield the skin from ultraviolet A and B rays. (UVA rays accelerate age-related skin damage and largely contribute to the risk of melanoma, the deadliest form of skin cancer.)

WATER-RESISTANT

According to FDA standards, this means the sunscreen has been tested and will maintain its SPF level for 40 minutes while swimming or

sweating. “Very water resistant” means it maintains its SPF level for 80 minutes. However, you still need to reapply sunscreen when you get out of the water.

PROTECTS AGAINST AGING AND SKIN CANCER

This is not a regulated term, but it’s safe to say that if used properly, any broad-spectrum sunscreen with an SPF of 30 or higher will help to protect you from skin aging and skin cancer. Proper use involves applying enough sunscreen—a teaspoon per body part, such as the torso or a leg—reapplying it every 2 hours you’re in the sun, and using it in combination with other sun-protection measures.

SPORT

You’ll find this on products marketed to people who want a sunscreen that stays put during vigorous outdoor activity. The term isn’t regulated by the FDA.


BABY OR KID

There are dozens of sunscreens that manufacturers say are designed just for babies and kids, but there is no FDA regulation that governs who can use these terms and how. You’ll often see this label on sunscreens designed to be less irritating to young skin—by virtue of containing only mineral active ingredients (zinc oxide and titanium dioxide).

DERMATOLOGIST TESTED OR APPROVED

This is a marketing term that is unregulated—and mostly meaningless. A dermatologist may have been consulted about the product or tried it, but there’s no way for the consumer to know what, if any, kind of testing was performed.


Ratings ➤ **Pick Your Protection** The lotions in our ratings contain either chemical or mineral active ingredients. The sprays and sticks contain chemical active ingredients.

Rec.	Product	Overall Score	Pricing		Package Size (oz.)	Test Results		
			Package	Per oz.		UVA protection	SPF	Variation from SPF
								
LOTIONS WITH CHEMICAL ACTIVE INGREDIENTS								
✓	La Roche-Posay Anthelios 60 Melt-in Sunscreen Milk	100	\$36	\$7.20	5	⬆	⬆	⬆
✓	BullFrog Land Sport Quik Gel SPF 50	95	\$13	\$2.50	5	⬆	⬆	⬆
\$	Coppertone Ultra Guard Lotion SPF 70	94	\$8	\$1.00	8	⬆	⬆	⬆
\$	Equate (Walmart) Ultra Lotion SPF 50	94	\$7	\$0.44	16	⬆	⬆	⬆
	Coppertone Defend & Care Ultra Hydrate Lotion SPF 50	79	\$14	\$2.25	6	⬆	⬆	⬆
	Coppertone WaterBabies Pure & Simple Whipped SPF 50	78	\$10	\$2.00	5	⬆	⬆	⬆
	Neutrogena CoolDry Sport Lotion SPF 30	78	\$11	\$2.20	5	⬆	⬆	⬆
	CVS Health Ultra Protection Sun Lotion SPF 70	76	\$9	\$1.13	8	⬆	⬆	⬆
	Neutrogena Ultra Sheer Dry-Touch Lotion SPF 45	76	\$11	\$3.67	3	⬆	⬆	⬆
	Solimo (Amazon) General Protection Lotion SPF 50	74	\$6	\$0.55	10	⬆	⬆	⬆
	Walgreens Hydrating Lotion SPF 50*	74	\$3	\$1.00	3	⬆	⬆	⬆
	Hawaiian Tropic Sheer Touch Ultra Radiance Lotion SPF 50*	70	\$8	\$1.00	8	⬆	⬆	⬆
	Hawaiian Tropic Silk Hydration Weightless SPF 30*	69	\$10	\$1.96	5	⬆	⬆	⬆
	Equate (Walmart) Sport Lotion SPF 50*	68	\$4	\$0.50	8	⬆	⬆	⬆
	Coppertone Sport Lotion SPF 50*	68	\$8	\$1.14	7	⬆	⬆	⬆
	Banana Boat SunComfort Lotion SPF 30*	67	\$6	\$1.00	6	⬆	⬆	⬆
	Hawaiian Tropic Sheer Touch Ultra Radiance Lotion SPF 30*	66	\$8	\$1.00	8	⬆	⬆	⬆
	No-Ad Baby Lotion SPF 50	65	\$9	\$0.69	13	⬆	⬆	⬆
	Kiehl's Activated Sun Protector Water-Light Lotion SPF 30	65	\$29	\$5.80	5	⬆	⬆	⬆
	La Roche-Posay Anthelios Derma-Kids Face & Body Lotion SPF 60*	61	\$20	\$2.99	7	⬆	⬆	⬆
	Shiseido Ultimate Sun Protection WetForce Lotion SPF 50+*	61	\$40	\$12.12	3	⬆	⬆	⬆
	No-Ad Sport Lotion 50	51	\$9	\$0.56	16	⬆	⬆	⬆
	Moroccanoil Sun Lotion SPF 50	51	\$32	\$6.40	5	⬆	⬆	⬆
	Banana Boat Dry Balance Lotion SPF 50+*	51	\$12	\$1.92	6	⬆	⬆	⬆
	Blue Lizard Australian Sunscreen Regular Lotion SPF 30+	50	\$19	\$3.80	5	⬆	⬆	⬆
	Hawaiian Tropic Antioxidant + Sunscreen Lotion SPF 50*	49	\$11	\$1.83	6	⬆	⬆	⬆
	Trader Joe's Refresh Face & Body Lotion SPF 30	43	\$6	\$1.00	6	⬆	⬆	⬆
	Coppertone Defend & Care Sensitive Skin Lotion SPF 50*	41	\$8	\$1.33	6	⬆	⬆	⬆
	Neutrogena Hydro Boost Water Gel Lotion SPF 30*	38	\$12	\$4.00	3	⬆	⬆	⬆
	Coppertone WaterBabies Pure & Simple Lotion SPF 50*	32	\$9	\$1.50	6	⬆	⬆	⬆
	Babyanics Sunscreen Lotion SPF 50+*	22	\$12	\$2.00	6	⬆	⬆	⬆

*Does not contain oxybenzone.

ICON: ELIAS STEIN

Rec.	Product	Overall Score	Pricing		Package Size (oz.)	Test Results		
			Package	Per oz.		UVA protection	SPF	Variation from SPF




LOTIONS WITH MINERAL ACTIVE INGREDIENTS

	California Kids #Supersensitive Lotion SPF 30+	55	\$20	\$6.90	3	✓	✓	✓
	Badger Active Natural Mineral Cream SPF 30 Unscented	55	\$16	\$5.52	3	✓	✓	✓
	Goddess Garden Everyday Natural Lotion SPF 30	50	\$18	\$3.00	6	!	!	✓
	Neutrogena Pure & Free Baby Lotion SPF 50	46	\$13	\$4.33	3	✓	✓	✓
	Thinkbaby SPF 50+ Lotion	41	\$13	\$4.33	3	✓	✓	✓
	Badger Sport Natural Mineral Cream SPF 35 Unscented	40	\$16	\$5.52	3	✓	✓	✓
	Vanicream Lotion SPF 50+	36	\$19	\$4.75	4	!	✓	✓
	Neutrogena Sheer Zinc Dry-Touch Lotion SPF 50	36	\$9	\$3.00	3	✓	✓	✓
	Sunology Natural Body Lotion SPF 50	34	\$15	\$7.50	2	✓	✓	✓
	Tom's of Maine Baby Lotion SPF 30	33	\$11	\$3.67	3	✓	✓	✓
	Kiss My Face Organics Face and Body Mineral Lotion SPF 30	32	\$17	\$5.00	3	!	✓	✓
	Thinksport Safe Lotion SPF 50+	32	\$24	\$4.00	6	✓	✓	✓
	Banana Boat Simply Protect Baby Lotion SPF 50+	31	\$8	\$1.33	6	!	✓	✓
	Alba Botanica Kids Mineral Lotion SPF 30	31	\$12	\$3.00	4	!	✓	✓
	True Natural Baby & Family Unscented Lotion SPF 30	31	\$19	\$5.59	3	✓	✓	✓
	Banana Boat Kids Sport Lotion SPF 50+	27	\$7	\$1.17	6	!	✓	✓
	MDSolarSciences Mineral Moisture Defense Lotion SPF 50	25	\$39	\$9.75	4	!	✓	✓

SPRAYS

💰	Trader Joe's Spray SPF 50+	100	\$6	\$1.00	6	✓	✓	✓
✓	Banana Boat SunComfort Clear UltraMist Spray SPF 50+	96	\$13	\$2.08	6	✓	✓	✓
✓	CVS Health Beach Guard Clear Spray SPF 70	90	\$10	\$1.54	7	✓	✓	✓
✓	Neutrogena CoolDry Sport Spray SPF 50	87	\$11	\$2.20	5	✓	✓	✓
✓	Neutrogena Beach Defense Water + Sun Protection Spray SPF 70	82	\$13	\$1.92	7	✓	✓	✓
	Panama Jack Continuous Spray SPF 30	79	\$12	\$2.18	6	✓	!	✓
	Coppertone Defend & Care Ultra Hydrate Spray SPF 50	78	\$8	\$1.60	5	!	✓	✓
	No-Ad Sport Continuous Spray SPF 30	76	\$9	\$0.90	10	✓	!	✓
	Up & Up (Target) Sport Spray SPF 30	76	\$8	\$0.67	12	✓	!	✓
	Hawaiian Tropic Island Sport Ultra Light Spray SPF 30*	75	\$12	\$2.00	6	✓	!	✓
	BullFrog Water Sport InstaCool Spray SPF 50	74	\$9	\$1.42	6	✓	✓	!
	Australian Gold Continuous Clear Spray SPF 30	72	\$11	\$1.83	6	✓	!	✓
	Neutrogena Wet Skin Spray SPF 30	72	\$11	\$2.20	5	✓	!	✓
	Alba Botanica Hawaiian Coconut Clear Spray SPF 50*	72	\$12	\$2.00	6	✓	✓	!
	Aveeno Hydrosport Wet Skin Spray SPF 30	71	\$12	\$2.40	5	✓	!	✓

	Product	Overall Score	Pricing		Package Size (oz.)	Test Results		
Rec.			Package	Per oz.		UVA protection	SPF	Variation from SPF

SPRAYS *Continued*

	Daylogic (Rite Aid) Sport Continuous Spray SPF 30	70	\$8	\$1.33	6	⬆️	⬇️	⬆️
	Well at Walgreens Sport Continuous Spray SPF 30	69	\$7	\$1.33	6	⬆️	⬇️	⬆️
	Neutrogena Ultra Sheer Body Mist SPF 45	66	\$12	\$2.40	5	⬆️	⬇️	⬇️
	Banana Boat Sport Performance CoolZone Spray SPF 30	65	\$9	\$1.50	6	⬆️	⬇️	⬆️
	Banana Boat Sport Performance Clear UltraMist PowerStay Technology Spray SPF 50+*	63	\$12	\$2.00	6	⬆️	⬇️	⬇️
	Banana Boat Sport Performance Clear UltraMist PowerStay Technology Spray SPF 100	63	\$12	\$2.00	6	⬆️	⬆️	⬇️
	Banana Boat Simply Protect Sport Spray SPF 50+*	61	\$10	\$1.67	6	⬆️	⬇️	⬇️
	Banana Boat Dry Balance Spray SPF 30	56	\$7	\$1.22	6	⬆️	⬇️	⬇️
	Coola Sport Unscented Spray SPF 50*	45	\$36	\$4.50	8	⬇️	⬇️	⬇️
	Supergoop Antioxidant-Infused Mist SPF 50*	43	\$19	\$3.17	6	⬇️	⬇️	⬇️
	Hawaiian Tropic Silk Hydration Weightless Clear Spray SPF 30*	42	\$10	\$1.67	6	⬆️	⬇️	⬇️
	Kiss My Face Cool Sport Spray SPF 50*	36	\$17	\$2.83	6	⬇️	⬇️	⬇️
	Hint Pear Sunscreen Spray SPF 30*	35	\$18	\$3.00	6	⬇️	⬇️	⬇️
	EltaMD UV Aero Continuous Spray SPF 45*	27	\$31	\$5.17	6	⬇️	⬇️	⬇️

STICKS

✓	Up & Up (Target) Kids Sunscreen Stick SPF 55	84	\$8	\$6.67	1	⬆️	⬆️	⬆️
	Neutrogena Beach Defense Water + Sun Protection Stick SPF 50+	76	\$11	\$7.33	2	⬆️	⬆️	⬆️
	Banana Boat Ultra Defense Sunscreen Stick SPF 50	68	\$6	\$10.91	1	⬆️	⬆️	⬆️

HOW WE TEST: CR's tests are modeled on, but differ from, the ones the Food and Drug Administration requires sunscreen manufacturers to use. To check the sun protection factor (SPF), a standard amount of each sunscreen is applied to a 2x3-inch rectangle on each panelist's back. Then the panelists soak in a tub of water. Afterward, smaller sections of that area are exposed to five or six intensities of simulated sunlight for a set time. About a day later, a trained technician examines the areas for redness. The resulting SPF (UVB) ratings reflect each product's effectiveness after water immersion and are based on an average of our results for each sunscreen. To test for UVA protection, we smear sunscreen on plastic plates, pass UV light through, and measure

the amount of UVA and UVB rays that are absorbed. We use those data to calculate our UVA score.

SCORES IN CONTEXT

Overall Score

For each sunscreen, the Overall Score is calculated from the results of tests on the following measures:

UVA Protection

All the products performed well enough in our tests that they would have passed a critical wavelength test, which is required for a sunscreen to be labeled "broad spectrum." That is a pass/fail test. We use a UVA test that allows us to determine the degree of UVA protection a sunscreen provides; scores range from Excellent to Poor.

SPF

This rating is based on the range found in our tests:

- ⬆️ Tested SPF ≥40
- ⬆️ Tested SPF 30-39
- ⬇️ Tested SPF 20-29
- ⬇️ Tested SPF 10-19
- ⬇️ Tested SPF 0-9

Variation From SPF

This rating is a measure of how closely a sunscreen's tested SPF matched the SPF on the label:

- ⬆️ Tested 85% or above labeled SPF.
- ⬆️ Tested 70%-84% labeled SPF.
- ⬇️ Tested 60%-69% labeled SPF.
- ⬇️ Tested 50%-59% labeled SPF.
- ⬇️ Tested 49% or below labeled SPF.

*Does not contain oxybenzone.





Smart
Summertime
Solutions

What's Wrong With This Picture?

An ever-widening territory of our green spaces is infested with an exploding tick population that's spreading a host of diseases. Learn how to protect yourself with our expert advice and our newest insect-repellent ratings.

BY KEVIN LORIA

AFTER SPENDING MORNINGS

exploring the fields, forests, and gardens of their outdoor classroom just north of New York City, the students and teachers at Little Leaf at Andruson-Hudson nature school perform an essential task: the tick check.

The preschoolers sit in a circle on the ground and sing a song about ticks ("Tick, are you in my armpit? Tick, are you in my ear?") while teachers inspect them one by one, examining their hair and checking behind their knees. They're looking for deer ticks, which can spread Lyme disease and other illnesses, and are sometimes as small as a poppyseed.

Parents are also encouraged to apply insect repellent to their children before school and do another tick check after school. For added protection, Theresa McCaffrey, Little Leaf's founder and director, had the perimeter of the garden classroom sprayed with the pesticide permethrin.

All of that might seem like an awful lot of work for a day outside in a grassy suburb. But for millions of Americans, it has become a necessity of daily life.

Disease-carrying ticks, found in all

50 states, have significantly increased their geographical range in the past 15 years, showing up in new places nearly every year and multiplying quickly. A Long Island entomologist recalled finding 250 ticks on a single bush. Last year a report from the Centers for Disease Control and Prevention (CDC) showed that the number of tick-borne diseases more than doubled between 2004 and 2016.

Scientists are testing new approaches that may help curb the explosion of tick-borne illnesses, such as Lyme disease and babesiosis. But there are no large-scale tick-control solutions demonstrated to work, according to Richard Ostfeld, Ph.D., a disease ecologist at the Cary Institute of Ecosystem Studies. In the meantime, people are left to protect themselves against the serious threat of disease using the same precautions taken at the Little Leaf school.

Thomas Mather, Ph.D., director of the University of Rhode Island's Center for Vector-Borne Diseases, has been studying ticks since 1983. He's known as "The Tick Guy," and says that over the years he may have collected more black-legged ticks than anyone. The recent rise in tick populations is something Mather has observed firsthand. "If people could just see what I'm seeing," he says, "they would never go outside."

A GROWING EPIDEMIC

In a recent nationally representative survey of 2,052 Americans by Consumer Reports, 4 in 10 said they had experienced a tick bite. But many more are bitten without ever realizing it. Today, the CDC estimates there are about 300,000 new cases of Lyme disease in the U.S. each year, most of them unreported.

And Lyme is just the best-known tick-borne illness. At least seven new diseases spread by ticks have emerged since 2004. (See "How a Tick Bite Can Affect Your Health," on the facing page.) Some can be fatal if not caught early.



HOW TO PROTECT AGAINST TICKS

1. BEFORE YOU GO OUTSIDE

Use one of CR's top-rated insect repellents to cover your exposed skin. You can also use clothing treated with the insecticide permethrin. (See "How Deet and Permethrin Can Protect You," on page 59). Wear long sleeves and pants, and tuck your pants into your socks.

2. WHEN YOU GET INSIDE

Toss your clothes in the dryer on high for 10 minutes to kill ticks that may be hanging on. The CDC also recommends taking a shower to wash off unattached ticks. Do a thorough body check, especially in places where ticks tend to attach themselves, such as inside the bellybutton, between the legs, in and around the ears and hair, and the back of the knees.

3. IF YOU FIND A TICK

Remove it using a fine-tipped pair of tweezers, the CDC says. Grasp the tick as close to the skin as possible and pull straight upward steadily—don't twist or jerk your hand. Ticks tend to crawl around on skin before they find a place to attach, so you might be able to find a tick before it bites. The longer they're attached, the more likely they are to transmit disease. For example, a tick is usually attached for 36 to 48 hours before it transmits Lyme disease.

Ticks aren't the only disease-spreading pests on the move. A study published in March predicts that as the world warms, a billion new people could be exposed to mosquito-borne diseases like Zika, dengue, and chikungunya between now and 2080.

When disease-carrying mosquitoes reach a new area in the U.S., there are standard public health responses, including population control methods, with cities, towns, and counties conducting mosquito abatement campaigns. But when ticks move in, you're often on your own.

THE DISEASES THEY SPREAD

"The continued spread of ticks, the discovery of new tick-borne pathogens, and the spreading outbreak of human disease is a near certainty," the Tick-Borne Disease Working Group, appointed by Congress, wrote in a report in 2018.

And yet tick-borne diseases have been underrecognized and vastly underdiagnosed. Funding for treating and especially preventing them is "orders of magnitude lower" than it is for other public health threats, the authors wrote in their report. A big part of the problem is that we don't understand ticks as well as we do other disease-spreading pests.

"Most tools for control have been developed for mosquitos, and ticks are very different organisms," says Adriana Costero-Saint Denis, Ph.D., a vector biology program officer at the National Institutes of Allergy and Infectious Diseases. "Research on ticks is lagging a bit behind." And scientists are still discovering new illnesses spread by ticks that we don't yet understand.

Ten years ago, researchers led by Thomas Platts-Mills, M.D., Ph.D., at the University of Virginia were just starting to learn that bites from Lone Star ticks were somehow causing a mysterious allergy to red meat.

"At the time, we didn't know this thing was going to become huge," says

How a Tick Bite Can Affect Your Health



You might not notice when a tick bites you. So act fast if you experience a fever or rash and have had recent potential exposure to ticks, including being in tall grass, woods, or generally out in nature where ticks live. Go to a doctor as soon as you can, advises Grace Marx, M.D., of the Centers for Disease Control and Prevention's Division of Vector-Borne Disease. Don't wait for a rash, which doesn't always appear. This is especially important for young children and older adults, who may be more prone to complications from tick-borne diseases.

Blood tests can detect tick-borne diseases, but your doctor shouldn't delay treatment while waiting for a test result if he or she suspects infection from a tick. The test for Lyme disease antibodies, for instance, isn't very accurate until several weeks after infection—and a late diagnosis can lead to complications.

Be sure to mention to your doctor any potential contact with ticks, including while traveling, even if you don't think you were bitten.

If you live in the Northeast or the Midwest U.S., it's likely that most primary care doctors are familiar with Lyme disease, Marx says. But elsewhere in the country, tick-borne illnesses may not immediately spring to mind. If your doctor seems unfamiliar, consider consulting an infectious disease specialist.

GUIDE TO TICK-BORNE DISEASES

The initial symptoms of most tick-borne diseases are similar. They can include fever, headache, joint swelling and muscle pain, and in some cases, gastrointestinal symptoms such as diarrhea, nausea, vomiting, or loss of appetite. A rash is a common symptom for most but not all tick-borne diseases. Anaplasmosis and babesiosis, for instance, rarely cause a rash.

When diagnosed promptly, most tick-borne diseases can be treated with a short course of antibiotics. Here's what you need to know about some of the conditions on the rise.

LYME DISEASE

Where most cases occur: Northeast, Mid-Atlantic, Pacific coast, and upper Midwest regions.

Potential complications:

Brain inflammation, memory problems, palsy, and irregular heartbeat. (Since 1985, there have also been nine reported deaths from a heart infection caused by Lyme.) Most of the time, Lyme symptoms resolve after a short course of antibiotics. But in 10 to 20 percent of cases, people develop post-treatment Lyme disease syndrome, in which a variety of symptoms continue for years.

EHRLICHIOSIS

Where most cases occur: Mid-Atlantic and Southeast to South Central regions.

Potential complications: Brain inflammation, lung or other organ failure, uncontrolled bleeding, death.

ANAPLASMOSIS

Where most cases occur: Northeast and upper Midwest regions.

Potential complications: Lung or other organ failure, bleeding problems, death.

ROCKY MOUNTAIN SPOTTED FEVER

Where most cases occur: Eastern, Central, and Western states (especially Arkansas, Missouri, North Carolina, Oklahoma, and Tennessee).

Potential complications: Neurological problems including paralysis and mental disability, lung problems, organ damage, tissue damage that can lead to the need for limb amputation, death.

BABESIOSIS

Where most cases occur: Northeast and upper Midwest regions.

Potential complications: Bleeding problems, a severe type of anemia that leads to jaundice, organ damage, death.

RED MEAT ALLERGY

Where most cases occur: Southeastern states.

Potential complications: Allergic reactions can include anaphylaxis, which can be fatal. And some people develop sensitivities to items in addition to red meat, such as dairy products, gelatin, or even certain medications.

—Catherine Roberts

Scott Commins, M.D., Ph.D., a member of the original research team. They knew of just a few dozen cases then. Now, he says, there are more than 5,000 people with these allergies—and still no known cure or even explanation of why the phenomenon is triggered by tick bites.

Lone Star ticks have traditionally lived in the Southeast, but as the climate warms they've been spreading. They can now be found as far north as Maine. In addition to the meat allergy, Lone Stars carry Bourbon virus, Heartland virus, Southern tick-associated rash illness, and the pathogens that cause the bacterial infections ehrlichiosis and tularemia, which is so infectious it's considered a potential biological weapon.

Eastern black-legged ticks, known as deer ticks, are expanding their range, too, bringing Lyme disease as well as babesiosis, Powassan virus, and more. So are dog ticks, which can carry the potentially deadly Rocky Mountain spotted fever, and Gulf Coast ticks, the vector for a milder illness called *Rickettsia parkeri*.

In 2017 researchers first reported spotting the invasive Asian longhorned tick in the U.S. It has now been found in at least nine states. While there's no evidence it's spreading disease here yet, in East Asia it has been known to cause several illnesses, including a deadly hemorrhagic fever.

It's quite likely, says Ostfeld, that the rates of tick-borne disease will continue to rise. Along with the warmer weather, which gives ticks a longer active season, environmental changes have led to growing populations of mice and deer, which carry the ticks that feed on them, helping the insects to spread.

One frustrating problem, according to Ostfeld, is that even interventions that kill large numbers of ticks—such as spraying lawns with insecticides—don't seem to lower rates of tick-borne illness.

Until a more organized public health response emerges, taking the steps that McCaffrey's preschoolers do every day

80%

of Americans say they are familiar with Lyme disease.

41%

of Americans say they have experienced a tick bite in their lifetime.

78%

of Americans who used insect repellent this past summer say they use the same methods to protect themselves against ticks and other bugs.

36-48 HOURS

How long a tick stays attached before transmitting Lyme disease, in most cases, according to the CDC.

can go a long way. (See "How to Protect Against Ticks," on page 56.) Experts say these measures offer fairly effective protection on an individual level, although they haven't been enough to stop the spread of disease. Even in areas where awareness and vigilance are relatively high, tick bites are still common.

FIGHTING THE FIGHT

Some communities that have been struggling with ticks the longest are reaching for more innovative fixes.

On Shelter Island in New York, where a large nature preserve,

marshes, and forests have long made it a haven for ticks, the goal is to try to get the deer population under control, says Jim Bevilacqua, M.D., chairman of the town's Deer and Tick Committee. With fewer deer, the hope is that there will be fewer ticks.

In Dutchess County, New York, the heart of the Lyme epidemic, The Tick Project—co-led by Ostfeld—is testing a pesticide spray made from a tick-killing fungus and small bait boxes that can apply a drop of the pesticide fipronil to mice. If the new spray, the bait boxes, or the two combined successfully reduce tick-borne disease when deployed at the neighborhood scale, it will be a first.

Even if those remedies are effective at a local level, experts say other interventions—some requiring millions of dollars in public investment—are also needed. For Lyme, it might be possible to introduce a vaccine.

(A previous vaccine was discontinued because of a lack of demand and reports of side effects such as arthritis, though research showed that arthritis wasn't in fact more common in people who had been vaccinated.)

Scientists are also working on ways to edit tick genes so they can no longer spread disease, though such strategies are nowhere near ready for public use.

In the meantime, ticks will continue to spread and new tick-borne diseases will continue to emerge, often before we fully understand how they work or how they should be handled.

Commins says that in the back of his mind, the concern isn't just that we're short of solutions for diseases like babesiosis, the hundreds of thousands of Lyme infections every year, and more. It's that we still haven't even begun to grasp the extent of the problem. The fact that scientists are just now discovering that ticks can spread an allergy, for example, suggests that "there are perhaps other things that tick bites can do that we don't quite recognize yet," he says. "There may be more to the tick bite story than we realize."

How Deet and Permethrin Can Protect You

First, the bad news: Whatever personal protection method you use, it may not be 100 percent effective. That's why doing a tick check every day that you're exposed to ticks is so critical, says Neeta Connally, Ph.D., director of the Tickborne

Disease Prevention Laboratory at Western Connecticut State University.

The good news: Two substances—deet and permethrin—can go a long way toward keeping you protected, and using at least one is better than not using

anything. Deet repels ticks, and permethrin can immobilize them on contact. The Environmental Protection Agency says that when used as directed, both are safe.

Here's what the research has to say about the benefits and drawbacks of each.

DEET

Deet has been available to the public as a repellent for ticks, mosquitoes, and other pests since 1957. In our tests, we've found it to be the most consistently effective. (Our current testing uses only mosquitoes, but past years of testing have shown that repellents that work well against mosquitoes also tend to do well against ticks.) Deet has proved to be so effective at repelling ticks that it's often used as the standard to compare the efficacy of newer repellents, says Lars Eisen, Ph.D., a research entomologist in the Centers for Disease Control and Prevention's Division of Vector-Borne Diseases. Joan Muratore, the test program leader at CR for insect repellents, says, "Our testing has found that deet affords the most reliable protection."

PROS

It's versatile. Deet can be applied to skin and clothes (although it shouldn't be applied under clothes) and comes in a number of formulations that all appear to be effective. We've found that lotions, wipes, and aerosol sprays with 25 to 30 percent deet are effective.

It keeps ticks away.

Ticks don't like to touch skin that's been treated with deet. In a recent study in the journal *Ticks and Tick-Borne Diseases*, just 3 of 100 ticks successfully walked across a surface treated with a deet solution.

It's inexpensive.

A bottle of deet-based repellent usually costs just \$4 to \$10.

CONS

It can damage clothes. Deet can damage certain synthetic fabrics (such as rayon and spandex) and plastic (such as watchbands).

It offers short-term protection.

To get the full benefit of deet, you need to apply it every single time you might be exposed to ticks. And heavy sweating could affect how long it lasts, according to Connally.

There's a small margin of error.

Repellents with deet need to be applied to all exposed skin, especially arms and legs.

PERMETHRIN

Permethrin, unlike deet, isn't applied directly to the skin. Instead, you can buy clothing that's treated with this pesticide. You can also treat your own clothing, shoes, and outdoor gear with permethrin spray, or send them to a company that will treat them for you. CR doesn't test permethrin, but the Army currently uses uniforms that are treated with it for protection against disease-carrying bugs of all kinds (not just ticks). It's less well-known than deet. In a recent nationally representative CR survey, just 14 percent of Americans had ever heard of it. But the CDC has published several recent studies on its tick-disabling properties.

PROS

Requires few applications.

According to manufacturers, professionally treated clothing continues to disable ticks even after repeated washings. A 2018 CDC study found that such clothing lost some toxicity to ticks after 16 washes and 16 days of wear but still irritated ticks, causing many to fall off the clothes in lab tests. Clothes you treat yourself lose their toxicity faster but can still be washed several times before needing retreatment.

Convenient.

Rather than making sure you've sprayed repellent and covered all your exposed skin every time you go out, some people may find it more convenient to start by putting on their permethrin-treated pants, shirt, and shoes. Eisen notes that this is one reason the CDC has been focusing on studying how ticks respond to permethrin-treated clothing.

CONS

Requires planning. If you treat your own clothes and gear, it's recommended that you take them outside to spray them to

avoid inhalation. Clothes should be completely dry before you wear them, which can take 2 to 4 hours.

Can be expensive.

Pretreated clothing can be pricey. Pretreated shirts from the company Insect Shield can run from \$20 to more than \$60.

Toxic to cats.

Though permethrin-treated items are safe once completely dry, make sure your cat stays away while you're spraying. If you have cats and dogs and spot-treat your dogs with permethrin, make sure your cats stay away for 72 hours.

—Catherine Roberts

Ratings ➤ **Insect Repellents** Our ratings are primarily based on how long a product protected test subjects from mosquito bites. The highest-rated ones offered protection for 6.5 hours or longer; the lowest-rated lasted 2 hours or less.

		Brand & Product	Overall Score	Pricing		Test Results		Features	
	Recommended			Package	Per oz./per wipe	Protection against mosquitoes and ticks	Resists damage to materials	Type	Claims to protect against ticks

TOP-RATED

Twelve of our 15 recommended repellents contain deet. Our testers have found that repellents containing 25 to 30 percent deet provide long-lasting protection most consistently. Although we don't currently test repellents for their effectiveness against ticks, past years of testing have shown that products that perform well against mosquitoes also tend to be effective against ticks.

\$	Total Home (CVS) Woodland Scent Insect Repellent (Deet 30%)	94	\$6.50	\$1.08	⬆️	⬆️	Aerosol	•
✓	Off Deep Woods Insect Repellent VIII Dry (Deet 25%)	94	\$8.50	\$2.13	⬆️	⬆️	Aerosol	•
✓	Repel Lemon Eucalyptus Insect Repellent2 Deet-Free (Oil of Lemon Eucalyptus 30%)	90	\$7.00	\$1.75	⬆️	⬆️	Pump	
\$	Ben's 30% Deet Tick & Insect Repellent	88	\$8.00	\$1.33	⬆️	⬆️	Aerosol	•
✓	Coleman Insect Repellent High & Dry 25% Deet	86	\$7.00	\$1.75	⬆️	⬆️	Aerosol	•
✓	Off Deep Woods Sportsmen Insect Repellent IV Dry (Deet 25%)	86	\$6.00	\$1.50	⬆️	⬆️	Aerosol	•
✓	Sawyer Ultra 30 Insect Repellent (Deet 30%)	84	\$10.00	\$3.33	⬆️	⬆️	Lotion	•
✓	Sawyer Premium Insect Repellent 20% Picaridin	83	\$8.00	\$2.00	⬆️	⬆️	Pump	•
\$	Repel Insect Repellent Scented Family 15% Deet	83	\$4.00	\$0.62	⬆️	⬆️	Aerosol	•
✓	Repel Insect Repellent Sportsmen Dry 25% Deet	76	\$5.00	\$1.25	⬆️	⬆️	Aerosol	•
\$	Off Deep Woods Sportsmen Insect Repellent II (Deet 30%)	74	\$6.00	\$0.75	⬆️	⬆️	Aerosol	•
✓	Cutter Backwoods Dry Insect Repellent (Deet 25%)	69	\$6.00	\$1.50	⬆️	⬆️	Aerosol	•
✓	Natrapel Tick & Insect Repellent (Picaridin 20%)	69	\$9.00	\$1.50	⬆️	⬆️	Aerosol	•
✓	Repel Insect Repellent Mosquito Wipes 30% Deet	65	\$5.00	\$0.33	⬆️	⬆️	Wipes	•
✓	Off Deep Woods Insect Repellent Towelettes (Deet 25%)	64	\$6.50	\$0.54	⬆️	⬆️	Wipes	•

NATURALS

Natural repellents, whose active ingredients are a mix of essential oils—including soybean oil, citronella oil, lemongrass oil, and more—are tested in the same way as other repellents. In our tests, these naturals provided less than 2 hours of protection.

	babyganics Deet Free Natural Insect Repellent	12	\$10.00	\$1.67	⬆️	⬆️	Pump	
	All Terrain Herbal Armor Natural Insect Repellent Deet-Free	12	\$8.00	\$2.00	⬆️	⬆️	Pump	
	All Terrain Kids Herbal Armor Natural Insect Repellent	8	\$6.00	\$1.50	⬆️	⬆️	Pump	
	Buzz Away Extreme Deet Free Repellent Towelettes	7	\$9.00	\$0.75	⬆️	⬆️	Wipes	•
	EcoSmart Insect Repellent	5	\$8.00	\$1.33	⬆️	⬆️	Pump	•
	California Baby Natural Bug Blend Bug Repellent	5	\$16.00	\$2.46	⬆️	⬆️	Pump	•

➤ All-Access and Digital members can find the latest, complete ratings at [CR.org/insectrepellents](https://www.consumerreports.org/insectrepellents).

HOW WE TEST: Testers apply a standard dose of repellent to a measured area on the arms of volunteer test subjects. After 30 minutes, they place their arms into the first of two cages containing 200 disease-free

mosquitoes. Our testers watch closely, counting every time a mosquito bites the subject's arm and begins to feed. After 5 minutes, the subjects withdraw their arms, then repeat the process by placing their arms into a second cage of

disease-free mosquitoes of a different species for another 5 minutes. A half-hour later, this procedure is repeated, and then again once every hour after that until a repellent fails our test or until 8 hours have passed since it was applied. We consider a

failure to be two confirmed mosquito bites in one 5-minute session inside the cage, or one confirmed bite in each of two consecutive 5-minute sessions. The **Overall Score** is based on the performance of the product in all of our tests.



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ROAD REPORT

TIP FROM OUR TEST TRACK

Summertime Battery Smarts

Summer's high temperatures can be more damaging to car batteries than winter's chill. According to AAA, a battery can be expected to last nearly five years or more in the most northern regions of the U.S. but fewer than four years in the most southern parts of the country.

To reduce the chances of being stranded by a dead battery, have your mechanic inspect it each time the oil is changed. You should also have your battery load-tested once a year after it's 2 years old if you live in a warmer climate or after it's 4 years old if you live in a colder climate.

"If you live in an area with extreme temperatures, consider getting an absorbent glass mat—or AGM—battery," says John Banta, a CR test engineer. "AGM batteries can be affected by high heat but tend to perform better overall than other sealed batteries in our tests."

ASK OUR EXPERTS

I want a small SUV that will be inexpensive to own. What are my best options?



Because your budget is a priority, consider a used SUV. Three-year-old vehicles can cost as little as half of what they sold for when new, and they should have plenty of life left. Our reliability survey data and fuel-economy figures can help steer you to a model with low operating costs. Below are five 2016 compact and subcompact SUVs. Each has shown above-average reliability in our member surveys and some of the best overall fuel economy in our tests.

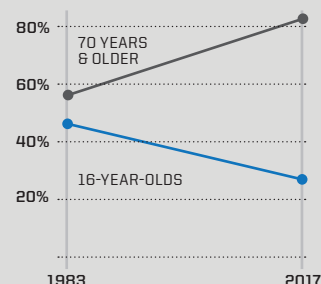
Toyota RAV4 Hybrid	Honda HR-V	Subaru Crosstrek	Subaru Forester 2.5i	Mazda CX-5 (2.5L)
RELIABILITY	RELIABILITY	RELIABILITY	RELIABILITY	RELIABILITY
31 MPG	29 MPG	26 MPG	26 MPG	25 MPG
\$21,750	\$17,775	\$19,850	\$19,500	\$19,200

Prices are approximate and based on CR-tested versions.

TRENDS

Who's Behind the Wheel?

Far fewer 16-year-olds hold a driver's license today than in 1983. The opposite is true for those over 70.



Source: Michael Sivak,
Sivak Applied Research.

RECALL

Acura MDX

Acura is recalling nearly 323,000 of its 2014-2019 MDX and 2017-2019 MDX Sport Hybrid SUVs because water can breach the brake light assemblies and cause brake light failure. This makes the vehicle more difficult to see at night and raises the risk of a crash.

What to do: Dealers will replace the seals or the light assembly (and, if necessary, an associated wiring harness) at no charge. For more information, go to recalls.acura.com or call 888-234-2138.

THE VITAL STATISTIC

37,000

Number of deaths in the U.S. attributed to increased speed limits during the past 25 years. Forty-one states have a speed limit of 70 mph or higher; one stretch of Texas tollway allows 85 mph.

Source: Insurance Institute for Highway Safety.

Unlock the Power of Your Car's Key Fob

by Mike Monticello



THE MODERN KEY FOB has so many hidden features built in that many owners may not be aware of all the conveniences the little devices offer.

"These features can be helpful if the owner knows how to access them," says Jake Fisher, senior director of auto testing at Consumer Reports.

Here are a few common examples:

Lower all windows:

Opening the windows and the sunroof at the same time can help cool off a car on a hot summer day. To activate this in most cars with the feature, press the unlock button on the fob once, then press it again

(within 10 seconds) and hold it down.

Remote start: On most key fobs, this feature is labeled with a circular arrow. But on some new BMWs, remote start is completely hidden. Owners can turn on the engine by pressing the lock button three times within a second.

Mirror folding: This feature is useful when you're in narrow alleys and tight parking spots. To activate it on some newer Chevrolet and GMC pickups, for example, hold the key-fob lock button for a full second.

Mechanical key: In case the fob malfunctions or the car battery dies, there's a

mechanical key inside the fob. It's usually accessed by pushing a button on the fob and pulling the key out, although on some remotes, the release button isn't obvious.

KEY-FOB CAUTIONS

It might be cool to lower all the car windows remotely via a key fob, but not if it's done accidentally. A CR auto editor did this without knowing it, then discovered our Honda Accord test car with all the windows down the next morning. Fortunately, it was a dry night, so the car's interior didn't get wet, and nothing had been stolen.

Chris Naughton, a Honda spokesman, told us that "unintentional activation is very uncommon but would be equally possible with other functions, like remote start or the panic alarm."

A CR tester pushed the door-lock button on the key fob for our BMW X5 multiple times to make sure it was locked, which accidentally started the SUV remotely.

"This is potentially dangerous," Fisher says. "Carbon monoxide could have built up if this happened in a closed garage."

The X5's remote-start system should shut the engine off after about 15 minutes of running if there's no vehicle activity while parked, according to the automaker.

KNOW YOUR FOB

When you get a new car, read the specific sections of the

owner's manual that address the fob. If possible, configure the settings on your remote to lock out features you don't want to trigger accidentally.

"Key fobs need to be labeled more clearly, regardless of whether they have hidden tricks or not," says Fisher. "It's hard to even tell the difference between 'lock' and 'unlock' on some key fobs, especially at night." Owners are left to memorize each button's function on poorly labeled fobs, a challenge in multicar households.

THE FUTURE OF FOBS

Automakers are in a tough spot attempting to please everybody, says Sam Abuelsamid, senior analyst at the automotive research firm Navigant. He thinks designers and engineers should worry less about the key fob doing everything and focus more on a consistent and easy user experience without any surprises.

CR believes it would help owners if the quick-reference guide that comes with most cars included a clear explanation of all of a key fob's features.

In the future, the point may become moot as smartphones take over fob functions, CR's experts and others point out.

For now, though, "we can't make it too difficult to activate the functionality or no one will likely use it or even be able to figure it out," says Naughton. "Automotive design is about balancing potential misuse with ease of use."



Lost Your Fob? Here's Help.

New key fobs can run from \$50 to as much as \$400 if you go through a dealer, says Mel Yu, a CR automotive analyst. Figure on another \$50 to \$100 in most cases to have a dealer program the fob and make a physical key. Fobs for European cars are usually the most expensive

to replace because of their encryption and laser-cut keys.

Going to an automotive locksmith can be more convenient (many offer mobile service) and potentially cheaper. A locksmith we contacted said that he could usually undercut dealer pricing by

30 to 50 percent but that he wasn't able to program fobs for all makes and models.

Online retailers, such as Amazon and Walmart, offer less-expensive fobs. The latest ones usually require programming by a dealer or locksmith, and some dealers won't

program aftermarket fobs. Others will, but they won't guarantee the programming will work with an off-brand replacement. Aftermarket fobs are the best solution for older cars with more elementary remotes that can be easily programmed.



ROAD TEST

WE CONDUCT 50+ TESTS ON EACH VEHICLE AT OUR 327-ACRE AUTO TEST CENTER. FOR COMPLETE ROAD TESTS, ALL-ACCESS MEMBERS CAN GO TO [CR.ORG/CARS](https://www.cars.com/cr).



COMPACT PICKUP TRUCKS

Ford Ranger

Redesigned but
Still Primitive

58

OVERALL
SCORE

ROAD-TEST SCORE 55

HIGHS Fuel-efficient for the class, maneuverable size, standard AEB

LOWS Ride, controls, engine noise, high step-in

POWERTRAIN 270-hp, 2.3-liter four-cylinder turbocharged engine; 10-speed automatic transmission; four-wheel drive

FUEL 20 mpg on regular fuel

PRICE AS TESTED \$40,355

THE RANGER RETURNS to the U.S. after an eight-year absence. It serves as an alternative to full-sized pickups for drivers who want a maneuverable truck with off-road ability that can capably haul and tow. The Ranger is distinguished by its strong powertrain and standard automatic emergency braking (AEB), but its ride and interior are disappointingly crude.

The 2.3-liter four-cylinder turbo engine performs with verve, and the 10-speed automatic transmission helps the Ranger respond smartly when drivers demand power. The Ford can move from 0 to 60 mph in 7.4 seconds, and it gets a good 20 mpg overall. But the engine is unduly noisy at low speeds.

The Ranger handles like a typical pickup truck. It has mushy, imprecise steering and

feels clumsy through corners. The greatest shortcoming is its stiff, jumpy ride. And the suspension lets sharp motions transmit through the cabin, tossing passengers around.

The interior is plain and has a low-end feel at this price, and some controls are hard to find. A bright spot is the optional, easy-to-use Sync 3 infotainment system.

The squishy front seat loses support on even a short drive. The manual recline adjustment makes it difficult for drivers to dial in an ideal seating position. The rear seat is rather upright, and taller passengers have limited legroom.

For those seeking more rear passenger space, bed size, and tow capacity, the Ford F-150 is a better choice—and it gets 19 mpg. The Honda Ridgeline is the smart pick for light tasks.



LUXURY MID-SIZED SUVs

Jaguar I-Pace

An Elegant EV
That's Fun to Drive

58

OVERALL
SCORE

ROAD-TEST SCORE 76

HIGHS Quick acceleration, agile handling, low running costs, no tailpipe emissions

LOWS Long charging times, limited range and charging network, controls, Jaguar's brand reliability

POWERTRAIN 394-hp, dual electric motors; 1-speed direct drive; all-wheel drive

RANGE 234 miles

PRICE AS TESTED \$86,841

THE I-PACE MARKS a major turning point in Jaguar's storied history. It's a luxurious, fun-to-drive EV that's aimed straight at Tesla shoppers. The I-Pace's electric powertrain delivers smooth, instantly available acceleration.

We clocked the I-Pace's 0-to-60 mph time at a mere 4.3 seconds. The Jaguar has agile, sporty handling and a firm yet comfortable ride.

But the car's EPA-rated 234-mile range is lower than that of a Tesla Model S or X, let alone the less expensive Chevrolet Bolt and Hyundai Kona EV.

It takes 13 hours to recharge the 90 kWh battery on a 240-volt charger. It's a challenge to find high-speed chargers, unlike with the Tesla Supercharger network.

The I-Pace is a blend of

sedan and SUV. On the plus side, the driver has a commanding view of the road and use of a practical hatchback. On the downside, there's not much room for cargo, and rear visibility is compromised.

The I-Pace is elegant and modern inside, but its controls are a notable shortcoming. The dual-screen infotainment system is sluggish to respond and the push-button gear selector is awkward to use.

Advanced safety features, including forward collision warning (FCW) and low-speed AEB, are standard, but it's disappointing that blind spot warning (BSW) and high-speed AEB are only optional.

The brand's below-average reliability history in CR surveys hurts the Overall Score of all Jaguar models, including the I-Pace.



MID-SIZED SUVs

Kia Telluride

A Superb
Three-Row Solution

90

OVERALL
SCORE

ROAD-TEST SCORE 97

HIGHS Ride, quietness, braking, powertrain, interior room, standard advanced safety features, well-equipped for price

LOWS Agility

POWERTRAIN 291-hp, 3.8-liter V6 engine; 8-speed automatic transmission; all-wheel drive

FUEL 21 mpg on regular fuel

PRICE AS TESTED \$40,855

THE ALL-NEW TELLURIDE vaults its way nearly to the top of the three-row midsize SUV standings, thanks to its refined driving experience, user-friendly controls, thoughtful features, and vast cargo room.

The V6 engine provides readily accessible power and works well with the responsive, smooth-shifting eight-speed automatic transmission.

The suspension soaks up most bumps efficiently, and the cabin is quiet. Kia's big SUV isn't a sporty handler, mostly because there's noticeable body roll in turns. But it zipped through our avoidance-maneuver test—where we simulate an emergency swerve around an obstacle—at an impressive 53.5 mph.

There's a pleasing mix of soft-touch surfaces and nicely styled trim pieces

throughout the cabin. The wide and comfortable front seats suit most body types. The second-row accommodations are generous, and the seat slides forward at the touch of a button for passengers to get into the low-perched third row, which is best suited for kids.

We appreciate the Kia's straightforward controls and user-friendly infotainment system, but the touch screen can be a reach for drivers who sit farther back from the steering wheel. There are USB charging ports on the back of each front seat, which is handy for second-row riders.

FCW, AEB with pedestrian detection, and BSW are standard, along with a rear-seat reminder for children and pets and a setting that keeps doors from being opened when a car is approaching.



LUXURY LARGE SUVs

BMW X7

First-Class Travel for
the Whole Family

85

OVERALL
SCORE

ROAD-TEST SCORE 94

HIGHS Powertrain, ride, quietness, interior room, fit and finish

LOWS Controls

POWERTRAIN 335-hp, 3.0-liter six-cylinder turbocharged engine; 8-speed automatic transmission; all-wheel drive

FUEL 22 mpg on premium fuel

PRICE AS TESTED \$84,095

THE NEW X7 is more than just a pricier, larger version of the excellent BMW X5 we tested earlier this year. It builds on that SUV's solid foundation, adding more luxury and top-notch accommodations.

BMW's turbo six-cylinder engine and eight-speed transmission help the X7 return a class-topping 22 mpg overall. When drivers ask for power, the engine smoothly pushes the X7 forward without hesitation. It took just 6.5 seconds to accelerate from 0 to 60 mph in our tests.

We wouldn't call the X7 sporty, but it's composed when going through curves. The standard air suspension helps the SUV glide over rough roads.

It's a treat to spend time in the roomy cabin appointed with supple leather, high-quality plastic, and chrome.

Our X7 has the optional powered second-row captain's chairs. They also motor forward to give access to the third row, which can fit two adults for short trips.

There's some room for improvement. It's a challenge to avoid rubbing a pants leg on the wide doorsills and lower bodywork when exiting the X7. It takes practice to master the infotainment system and some controls. And those optional captain's chairs don't fold down, which limits the available cargo room. Folding down the standard three-person bench seat opens up lots more space.

We like the fact that BMW offers FCW, low-speed AEB, and BSW as standard equipment. But for a luxury vehicle in this price range, we also think high-speed AEB should be included.

Ratings > **A Wide Range of Choices** We have test results of the first true Tesla competitor, the Jaguar I-Pace. Plus, we evaluate a pair of three-row SUVs and the reborn Ford Ranger.

	Make & Model	Overall Score	Price	Survey Results		Safety	Road-Test Results											
Recommended				Predicted reliability	Owner satisfaction	Front-crash prevention	Road-test score	Overall mpg	Acceleration 0-60mph, sec.	Dry braking 60-0mph, ft.	Avoidance-maneuver speed, mph	Routine handling	Ride	Noise	Seat comfort front/rear	Controls	Cargo volume, cu. ft./Luggage, suitcases+duffels	
	As tested																	
MIDSIZED SUVs (3-ROW)																		
✓	Subaru Ascent Limited	96	\$43,867	⬆	⬆	Std./⬆	93	22	8.0	129	52.0	⬇	⬆	⬆	⬆/⬆	⬆	40.5	
✓	Kia Telluride EX	90	\$40,855	⬇	⬆	Std./⬆	97	21	7.2	127	53.5	⬇	⬆	⬆	⬆/⬆	⬆	47.5	
✓	Toyota Highlander XLE (V6)	85	\$41,169	⬆	⬆	Std./⬆	82	22	7.4	134	48.5	⬇	⬆	⬆	⬆/⬆	⬆	40.5	
✓	Kia Sorento EX (V6)	78	\$41,925	⬆	⬆	Opt.	78	22	8.1	137	49.0	⬇	⬆	⬆	⬆/⬆	⬆	37.5	
✓	Mazda CX-9 Touring	78	\$40,470	⬆	⬇	Std./⬇	80	22	7.9	139	50.0	⬆	⬆	⬆	⬆/⬆	⬇	34.0	
✓	Honda Pilot EX-L	74	\$40,655	⬇	⬇	Std./⬆	80	20	7.5	136	49.5	⬇	⬆	⬆	⬆/⬆	⬇	48.0	
	Nissan Pathfinder SL	66	\$40,470	⬇	⬇	Std./⬆	72	18	7.7	137	47.0	⬇	⬆	⬆	⬆/⬆	⬆	39.5	
	Dodge Durango GT (V6)	65	\$43,525	⬇	⬆	Opt.	83	18	8.3	134	48.0	⬇	⬆	⬆	⬆/⬆	⬆	44.0	
	Chevrolet Traverse Premier (V6)	65	\$49,945	⬇	⬆	Opt.	95	20	7.3	130	50.5	⬆	⬆	⬆	⬆/⬆	⬆	54.5	
	Volkswagen Atlas SEL (V6)	62	\$44,165	⬇	⬆	Std./⬆	84	20	8.7	135	51.0	⬆	⬆	⬆	⬆/⬆	⬆	50.5	
LUXURY MIDSIZED SUVs																		
✓	BMW X5 xDrive40i	88	\$68,730	⬇	⬆	Std./⬆	98	23	6.0	129	52.0	⬆	⬆	⬆	⬆/⬆	⬇	36.5	
✓	Audi Q7 Premium Plus	87	\$68,695	⬆	⬆	Std./⬆	96	20	6.7	127	50.0	⬆	⬆	⬆	⬆/⬆	⬇	35.5	
✓	Lexus RX 450h	82	\$57,565	⬆	⬆	Std./⬆	80	29	7.5	138	50.0	⬇	⬆	⬆	⬆/⬆	⬇	30.0	
✓	Lincoln Nautilus (2.7T)	75	\$54,945	⬇	⬇	Std./⬆	84	18	7.2	128	53.5	⬆	⬆	⬆	⬆/⬆	⬇	32.5	
	Porsche Cayenne Base	70	\$79,280	⬇	⬆	Std./⬆	87	21	6.5	131	49.5	⬆	⬇	⬆	⬆/⬆	⬇	32.0	
	Jaguar I-Pace HSE	58	\$86,841	⬇	⬆	Std./⬆	76	76*	4.3	136	52.0	⬆	⬇	⬆	⬆/⬆	⬇	25.5	
	Tesla Model X 100D	55	\$109,200	⬇	⬆	Std./⬆	77	87*	4.9	127	53.5	⬆	⬇	⬆	⬆/⬇	⬇	2+2	
LUXURY LARGE SUVs																		
✓	BMW X7 xDrive40i	85	\$84,095	⬇	⬆	Std./⬆	94	22	6.5	136	52.5	⬆	⬆	⬆	⬆/⬆	⬇	26.0	
✓	Toyota Land Cruiser	75	\$84,820	⬆	⬆	Std./⬆	68	14	7.3	140	46.0	⬇	⬆	⬆	⬆/⬆	⬆	43.0	
	Infiniti QX80 Luxe	65	\$63,395	⬇	⬇	Std./⬆	68	15	6.9	139	48.0	⬇	⬆	⬆	⬆/⬆	⬆	49.5	
	Lincoln Navigator Select	65	\$86,480	⬇	⬆	Opt.	65	16	6.2	144	47.0	⬇	⬆	⬆	⬇/⬆	⬇	56.0	
	Land Rover Range Rover HSE (3.0L)	52	\$88,545	⬇	⬇	Std./⬆	78	17	6.7	137	48.5	⬇	⬆	⬆	⬆/⬆	⬇	34.5	
	Cadillac Escalade Premium	43	\$87,360	⬇	⬇	Opt.	61	16	6.1	142	45.0	⬇	⬇	⬆	⬆/⬆	⬇	48.0	
COMPACT PICKUP TRUCKS																		
✓	Honda Ridgeline RTL	74	\$36,480	⬇	⬆	Opt.	83	20	7.3	134	53.5	⬇	⬆	⬆	⬆/⬇	⬆	NR	
	Ford Ranger XLT	58	\$40,355	⬇	⬆	Std./⬆	55	20	7.4	143	47.0	⬇	⬇	⬇	⬇/⬇	⬇	NR	
	Chevrolet Colorado LT (V6)	49	\$34,300	⬇	⬇	Opt.	61	18	7.5	132	48.5	⬇	⬇	⬇	⬇/⬇	⬆	NR	
	GMC Canyon SLE (V6)	49	\$35,835	⬇	⬇	Opt.	61	18	7.5	132	48.5	⬇	⬇	⬇	⬇/⬇	⬆	NR	
	Toyota Tacoma SR5 (V6)	45	\$34,364	⬇	⬇	Std./⬆	42	19	8.2	146	46.0	⬇	⬇	⬇	⬇/⬇	⬆	NR	

HOW WE TEST: Recommended models did well in our **Overall Score**, which factors in **Road-Test Results**, **Predicted reliability**, **Owner satisfaction**, and **Safety**, which

includes crash-test results and the availability of front-crash prevention features, such as forward collision warning and automatic emergency braking, pedestrian detection, and

blind spot warning. NA means no such safety system is offered; Opt. means it's available but not as standard equipment. We also rate models from ↓ to ↑ based on how

many advanced safety features come standard. We deduct points if a model's gear selector lacks fail-safes. Digital or All-Access members can go to [CR.org/cars](https://www.cars.com) for complete ratings.

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These promotions might throw a little cold water on your summer savings

Shallow Promise

Thank goodness you don't have to take the pool to them!
Submitted by Tim Onstott, Keller, TX



Penny-Pinching Planter

It seems that the grass is only very slightly greener on the clearance side of the store.
Submitted by Anonymous, Nashville, TN



Was \$49.98

This Oasis Is More Like a Mirage

Let's hope these shopkeepers don't moonlight as accountants.
Submitted by Michael Rutherford, Akron, OH



cooked Maine lobster

Product of Honduras

A Sea Change

Looks like this fishmonger has been caught telling tall "tails."
Submitted by Diana Naples, Southington, CT



SHARE

Be on the lookout for goofs and glitches like these. Share them with us—by email at SellingIt@cro.consumer.org or by mail to Selling It, Consumer Reports, 101 Truman Ave., Yonkers, NY 10703—and we might publish yours. Please include key information, such as the publication's name and date.

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CANADA

Canadian information
in 4-page insert

Canada Extra

Grills **34a**Mowers & Lawn Tractors **34b**Recalls **34c**Autos **34d**Contact Info **34d**

How to Use the Canada Extra Section

EVERY MONTH, Canada Extra provides Canadian pricing and availability information about products tested for that issue. The ratings in this section are based on this month's reports, but they narrow your choices to the products that are sold in Canada.

You can use this section in either of two ways: Start with the main report, read about the products that interest you, and turn to this section to find whether they're sold—and for what price—in Canada.

Or start here, find products sold in Canada whose price and Overall Score appear promising, and read more about them in the main report and full ratings chart; page numbers appear with each Canadian report. (For some products, the Canadian model designation differs slightly from the one used in the U.S.)

In most cases, the prices we list here are the approximate retail in Canadian dollars; manufacturers' list prices are indicated by an asterisk (*). The symbols shown at right

identify CR Best Buys or recommended products in the U.S. ratings. "NA" in a chart means that information wasn't available from the manufacturer. We include, in the Contact Info list on page 34d, the manufacturer's web address in Canada so that you can go online to get information on a model you can't find in the stores. (Many products that aren't available in Canadian stores can be bought online.)

We appreciate your support, but we don't take it

for granted. Please write to CanadaExtra@cr.consumer.org and tell us what you think. We can't reply to every email or implement every suggestion, but with your help we'll try to keep growing to serve your needs.

CR Best Buy









Recommended models that offer the best combination of performance and price.








Recommended

Models that perform well and stand out for reasons we note.

Grills

Twenty-three of the tested gas grills are available, including 14 of the recommended models. **Report and ratings, pages 22-27**

Rec.	Rank	Brand & Model	Overall Score	Price
SMALL GAS GRILL (room for up to 18 burgers)				
	2	Weber Spirit II E-210 44020001	70	\$700
MIDSIZED GAS GRILLS (room for up to 28 burgers)				
	1	Weber Genesis II E-310	77	\$700
	2	Weber Genesis II S-335 61006001	76	\$1,450
	3	Weber Genesis II E-330 61012001	75	\$1,300
	6	Weber Spirit II S-310 45000001	74	\$1,000
	7	Nexgrill Deluxe 720-0896B (Home Depot)	73	\$700
	9	Napoleon Prestige P500RSIB	72	NA
	10	Napoleon LEX485RSIB	71	\$1,400
	11	Nexgrill 720-0830H (Home Depot)	71	\$500
	12	Napoleon Rogue R425SBPK	70	\$1,000
	13	Nexgrill 720-0888N (Home Depot)	67	\$350
	14	Napoleon Rogue R425SIBPSS	67	\$1,200

Rec.	Rank	Brand & Model	Overall Score	Price
MIDSIZED GAS GRILLS <i>Continued</i>				
	16	Nexgrill Evolution 720-0882A (Home Depot)	66	\$500
	17	Broil King Baron 440 922164	65	\$750
	18	Nexgrill 720-0898	64	\$520
LARGE GAS GRILLS (room for 28 or more burgers)				
	1	Weber Summit E-670	79	\$3,600
	2	Weber Genesis II E-410	76	\$1,200
	3	Weber Genesis II S-435 62006001	76	\$1,700
	5	Napoleon LEX730RSBIPSS	76	\$1,950
	6	Napoleon Prestige Pro 665RSIB	74	NA
	7	Broil King Regal S590 Pro 958344	72	\$1,600
	8	Broil King Baron 590 923184	69	\$1,000
	9	Broil King Imperial 590 958884	66	NA
	All-Access and Digital members can find the latest, complete ratings at CR.org/grills .			

Mowers and Lawn Tractors

Thirty-seven of the tested mowers and lawn tractors are available. All are recommended. **Report and ratings, pages 40-45**

		Brand & Model	Overall Score	Price
Rec.	Rank			

GAS PUSH MOWERS

✓	1	Honda HRR216PKC	75	\$600
✓	2	Cub Cadet SC100 H	70	\$450
✓	3	Troy-Bilt 11A-B2AQ563	69	\$450
✓	5	Toro Recycler SmartStow 21329	66	\$400

GAS SELF-PROPELLED MOWERS

✓	1	Honda HRX2176HZC	86	\$1,150
✓	3	Honda HRR216VYC	82	\$800
✓	4	Honda HRR216VLC	80	\$800
\$	5	Honda HRR216VKC	79	\$700
✓	6	Toro Super Recycler 21381	73	\$760
✓	7	Cub Cadet SC 700E	71	\$800
✓	8	Cub Cadet SC 900	70	\$700
✓	10	Toro Recycler SmartStow 20340	68	\$540
✓	11	Toro Recycler 20333	67	NA
✓	12	Toro PoweReverse Recycler SmartStow 20355	67	NA

GAS WIDE-DECK SELF-PROPELLED MOWER

✓	2	Toro TimeMaster 21199	73	\$1,330
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LAWN TRACTORS

✓	1	John Deere X350-42	90	\$4,690
✓	2	John Deere S240-48	89	\$4,100
✓	3	John Deere E160	89	\$3,200
\$	4	John Deere E130	86	\$2,840

		Brand & Model	Overall Score	Price
Rec.	Rank			

LAWN TRACTORS *Continued*

\$	5	John Deere E140	85	\$2,980
✓	6	Husqvarna TS 354X	80	\$4,400

LAWN TRACTORS, ZERO-TURN

✓	1	John Deere Z345R-42	85	\$4,100
✓	2	Toro MyRide TimeCutter MX5075 74768*	84	\$6,100
\$	3	Toro TimeCutter SS4225 74726	83	\$3,800
\$	4	John Deere Z335E-42	83	\$3,560
✓	5	John Deere Z375R-54	83	\$4,960
✓	6	John Deere Z355E	83	\$3,800
✓	7	Toro MX5000 74773*	82	\$4,400
✓	8	Craftsman Z530	79	NA
✓	9	Cub Cadet RZT SX42	76	\$4,500
✓	10	Cub Cadet Ultima ZT2-50	76	\$5,300

BATTERY PUSH MOWERS

\$	1	Ego LM2101	71	\$600
✓	3	Stihl RMA 510	67	\$650
✓	4	Ryobi RY40180	61	\$400
✓	5	Echo CLM-58V4AH	61	NA

BATTERY SELF-PROPELLED MOWERS

✓	1	Ego LM2142SP	79	\$1,000
\$	2	Ego LM2102SP	79	\$800

> All-Access and Digital members can find the latest, complete ratings at [CR.org/mowers](https://www.consumerreports.org/mowers).

GAS PUSH MOWERS

✓ **Cub Cadet**
SC100 H
\$450

70 OVERALL SCORE



BATTERY PUSH MOWERS

✓ **Ego**
LM2101
\$600

71 OVERALL SCORE



LAWN TRACTORS

✓ **John Deere**
X350-42
\$4,690

90 OVERALL SCORE





RECALLS

2013-2016 DODGE DART

On certain cars equipped with an automatic transmission, the shifter cable may detach and the transmission may not shift gears when the shifter is moved. If the car is not in the Park position and the parking brake is not applied, the car could move suddenly.

Affected: 20,117 vehicles.

What to do: The company will notify owners by mail and instruct them to take their vehicle to a dealer to replace the transmission side shifter cable bushing with an improved one.

Note: The gear position indicator on the instrument cluster and next to the shifter will continue to work properly. In addition, if the driver's door is opened while the transmission is not in Park, the door-ajar messages will display on the instrument cluster and chimes will sound.

2014-2019 ACURA MDX

On certain vehicles, water could enter the tail lamps located on the tailgate, causing the tail lamps to not work properly and/or a fuse to blow, which could result in a complete loss of rear lighting.

Affected: 32,880 vehicles.

What to do: The company will notify owners by mail. Owners will be instructed to take their vehicle to a dealer to inspect the tailgate lid lamps. If either lamp is not working, the dealer will replace both lamps and inspect/replace the fuse. If both tailgate lid lamps are working, the dealer will modify the lamps and install updated gaskets and wiring.

2016-2018 MAZDA3

An electrical problem may cause the windshield wipers to stop working.

Affected: 51,682 vehicles.



DODGE DART

What to do: Mazda will notify owners by mail and instruct them to take their vehicle to a dealer to replace the front body control module with an improved one.

2017-2019 ALFA ROMEO MODELS

Under specific driving conditions, the driver may not be able to cancel the adaptive cruise control (ACC) setting. If the driver does not shift to Neutral or apply the brakes to stop the vehicle, this can cause a crash without warning.

Affected: 1,600 2017-2019 Giulia and 2018-2019 Stelvio vehicles.

What to do: The company will notify owners by mail. They will be instructed to take their vehicle to a dealer to update the brake system software. Drivers should not use the ACC feature until this update is completed.

2018-2019 ACURA AND HONDA MODELS

On certain vehicles, the teeth on the timing belt may separate and result in an engine stall.

Affected: 9,834 2018-2019 Acura MDX, 2019 Acura TLX,

and 2019 Honda Odyssey, Pilot, and Ridgeline vehicles.

What to do: The company will notify owners by mail and instruct them to take their vehicle to a dealer to inspect the lot number on the timing belt. If it is within the affected range, the belt will be replaced. Additionally, dealers will inspect the engine for internal damage.

2018-2019 AUDI MODELS

Some vehicles were built with an incorrect brake master cylinder. This could cause a complete loss of braking (with the exception of the emergency/parking brake function).

Affected: 1,758 Q5 and SQ5 vehicles.

What to do: Volkswagen will notify owners by mail and instruct them to take their vehicle to a dealer to inspect the brake master cylinder. If the vehicle is equipped with the incorrect part, it will be replaced with the correct one.

2018-2019 HONDA ODYSSEY

On certain vehicles, a low-voltage condition caused by a loose battery connection or

a low battery could cause a problem with the transmission control module (TCM). If this happens, the transmission could shift to Park while driving and cause damage to the transmission park pawl. As a result, when the transmission is shifted to Park, the vehicle could move if the parking brake is not applied.

Affected: 6,540 vehicles.

What to do: Honda will mail a letter to owners asking them to take their vehicle to a Honda Automobile dealer. The dealer will ensure the battery terminals are secure and update the TCM with the latest software. If the parking gear cannot hold the vehicle in Park without application of the electronic parking brake, the transmission will be replaced.

2018-2019 HYUNDAI ACCENT

On certain five-door cars, when the rear defroster is switched on, the rear glass may develop hot spots.

Affected: 3,398 vehicles.

What to do: The company will notify owners by mail. They will be instructed to take their car to a dealer to have the rear glass replaced.

Autos

All of the tested vehicles are available in Canada. **Report and ratings, pages 63-65**

		Acceleration (sec.)				Fuel Economy (liters per 100 km)		
Make & Model	Price Range	0-50 km/h	0-100 km/h	80-100 km/h	500 Meters	City Driving	Highway Driving	Overall
MIDSIZE SUV (3-ROW)								
Kia Telluride	\$44,995–\$53,995	2.8	7.7	3.6	17.8	17.2	7.7	11.3
LUXURY MIDSIZE SUV								
Jaguar I-Pace	\$89,800–\$99,800	2.1	4.5	1.7	14.9	2.9	3.3	3.1
LUXURY LARGE SUV								
BMW X7	\$92,500–\$110,100	2.7	6.9	3.1	17.2	16.5	7.4	10.8
COMPACT PICKUP TRUCK								
Ford Ranger	\$30,569–\$41,389	3.3	7.8	3.6	18.1	16.6	8.8	11.7

✓ **KIA TELLURIDE**
PRICE AS TESTED
\$40,855 (U.S.)

90
OVERALL
SCORE



JAGUAR I-PACE
PRICE AS TESTED
\$86,841 (U.S.)

58
OVERALL
SCORE



✓ **BMW X7**
PRICE AS TESTED
\$84,095 (U.S.)

85
OVERALL
SCORE



FORD RANGER
PRICE AS TESTED
\$40,355 (U.S.)

58
OVERALL
SCORE



Contact Info

How to reach
manufacturers
in Canada.

Broil King
broilkingbbq.com

Craftsman
craftsman.com

Cub Cadet
cubcadet.ca

Echo
echocordless.ca

Ego
egopowerplus.com

Honda
powerequipment.honda.ca

Husqvarna
husqvarna.com/ca-en

John Deere
deere.ca

Napoleon
napoleon.com

Nexgrill
Nearest Home Depot

Ryobi
ryobitools.ca

Stihl
en.stihl.ca

Toro
toro.com/en-ca

Troy-Bilt
troybilt.ca

Weber
weber.com