

MEMBERSHIP BENEFIT



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**CR**ConsumerReports®

**96 GROCERS RATED:** WHO'S FRESH, HEALTHY & LOW-PRICED?

**SURVEY:** BEST CAR SAFETY SYSTEMS • CREDIT SCORE ERRORS THAT CAN COST YOU

AUGUST 2019

# CR Consumer Reports®

## REVIEWS & RATINGS

- Blenders
- Smart Speakers
- Decking
- Stick Vacuums
- Kia Soul

**MOST RELIABLE  
APPLIANCES**

# Revealed!

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## Our New Brand Rankings

unveil who makes the most and least reliable appliances for your kitchen & laundry room.

### PLUS

Expert care tips for longer product life.

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Today's grocery store serves up digital convenience, speed, and even a little entertainment.

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You'll see a different cover on newsstands (shown at far left) versus the member cover (near left) for this month's issue. However, the content inside each is identical.



PHOTO, NEWSSTAND COVER: SINELAB. PHOTO, MEMBER COVER: JUSTIN METZ

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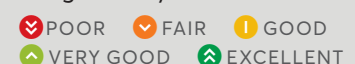
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# Digging Deep Into Reliability



GROWING UP, I remember the constant hum of our washing machine working to keep up with the damage my three brothers and I inflicted on our clothes. I used to get a huge kick out of making time capsules that I would bury in the dirt, locking up my favorite toys, coins, notes, or family photos. I thought it would be so cool to find them years later, but I never could

resist digging them up right away, earthworms and all—and all that dirt kept my clothes cycling through the wash.

We all depend on our household appliances—so we search for value that lasts. But as many of us have learned the hard way, some brands are more reliable than others, and as products have become more technologically complex, they're prone to more costly failures. Through CR's quarterly appliance surveys, we hear from hundreds of thousands of CR members. They tell us that they expect newly purchased major appliances such as refrigerators and washing machines to last, on average, at least 10 years. However, our research shows that owners do get hit with disruptive repairs within the first five years. Little wonder that our members report that reliability is more important for them than either price or performance when buying such appliances.

This is why we dug into our deep reservoir of consumer data on reliability to give you—for the first time—a comparison of 24 brands based on how reliable their kitchen and laundry appliances are across product categories. From washers to dryers, from ranges to refrigerators, you'll see each brand's strengths and weaknesses.

Thanks to your feedback, we're able to give you the tools you need to buy better and live better. When we choose brands that last, we also encourage manufacturers to prioritize reliability in their design and production. We hope that this information helps you to make smarter choices and that it holds industry accountable to your needs.

**Marta L. Tellado,**  
President and CEO  
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## Lowering Rx Drug Prices

### WHAT'S AT STAKE

Prescription drug prices have been rising so steeply that some consumers are being forced to choose between their medications and basic necessities.

One step toward alleviating the problem would be more, and more affordable, generic versions of brand-name drugs that are no longer covered by patents.

But some brand-name drugmakers have cynically engaged in practices that slow the introduction of generics to prolong their monopoly profits.

### HOW CR HAS YOUR BACK

CR has endorsed and lobbied for four bills designed to stop these practices. One would prohibit drugmakers from paying generic manufacturers to stay out of the market for a particular drug. Two others include prohibitions against pharmaceutical companies blocking access to the samples of their drugs that are required to make generic versions, and against abusing “citizen petitions” to disrupt the Food and Drug Administration’s review and approval process.

The fourth bill calls for a thorough study of intermediaries known as pharmacy benefit managers, or PBMs, to determine whether they act in the interests of the health plans they ostensibly serve or whether the rebates they receive from drugmakers induce them to keep choices restricted and prices inflated.

In April, the bills were approved by the House Judiciary Committee—in an encouragingly bipartisan vote. CR will keep pushing to advance these bills through Congress and urge the president to sign them into law.

### WHAT YOU CAN DO

Read CR’s advice on how to pay less for your meds, and share your own strategies for dealing with rising drug costs, at [CR.org/drugcosts0819](http://CR.org/drugcosts0819).

## Fighting High Utility Fees

### WHAT'S AT STAKE

Ever notice that your utility bills include fees that your provider charges every month—regardless of how much power you used? Hiking up such fees is a disservice to the public.

Why? High fixed fees weaken your control over your energy bills, shift a disproportionate burden onto low-usage and low-income customers, and reduce incentives for consumers to conserve energy because using less power won’t spare them from the fixed fee.

So CR took notice when Duke Energy asked South Carolina’s Public Service Commission for permission to raise its “basic facilities charge” from \$8.29 to \$28 per month, which would be one of the largest fixed fees of any investor-owned utility in the country. If Duke got its way, each customer would have to

spend \$336 a year even before plugging in their refrigerator or turning on a single light.

### HOW CR HAS YOUR BACK

Joining a coalition of groups opposing the fee hike, CR brought Duke customers, and a 500-signature petition, to the commission hearings, penned an op-ed in a regional news outlet, and distributed a fact sheet to educate customers on the proposal and what they could do to voice concern.

The efforts paid off. In May, the state commission not only voted to scale back the fee increase but also recommended significant compensation cuts for Duke’s CEO and three other executives, whom it rebuked as “tone deaf.” The decision sends a strong message to any utility that’s considering a fee hike.

### WHAT YOU CAN DO

Read “Protect Yourself From Hidden Fees” in our July issue for more insight into unfair and deceptive consumer fees,

and tips on how to avoid them. And go to [WhatTheFee.com](http://WhatTheFee.com) to share your experience with hidden and unfair fees.

## Keeping Your Data Secure

### WHAT'S AT STAKE

In today’s marketplace, the security of our personal information is increasingly at risk. When you go online, whether on a computer or smart device, your data is being collected and shared by companies in ways that aren’t always transparent. And rules for how your information is treated are scant.

CR believes that we all should have more control over our personal information and that companies should be more open about how they use it.

### HOW CR HAS YOUR BACK

The Washington state legislature recently considered a bill backed by Microsoft and other tech firms that was touted as a way to give consumers more protection. But CR advocates found it to be full of loopholes that would allow companies to ignore consumers’ choices about how their information is used.

CR called on lawmakers in Olympia to reject the bill, saying it would set a dangerously weak precedent. The bill died when the legislature adjourned without bringing it up for a final vote.

Meanwhile, the California Consumer Privacy Act—which CR endorses—is about to be implemented by state officials. It gives consumers important protections, including the right to know what information companies collect, to delete it, and to know whether it’s being sold or disclosed to third parties. While industry groups are trying to weaken the law before it goes into effect in 2020, CR continues to advocate for the strongest possible protections.

### WHAT YOU CAN DO

Learn more about technology security and privacy at [CR.org/privacy0819](http://CR.org/privacy0819).



### Pill Profits

CR is fighting to increase the number of generic drugs that are available.





Our June 2019 article “**Sound Advice About Hearing Loss**” revealed the results of our member survey on hearing aids and struck a chord with many of our readers. To join the conversation, go to [CR.org/hearing0819](https://www.consumerreports.org/hearing0819).

THANK YOU for shining a spotlight on hearing loss and hearing aids, which help the 48 million Americans who strive to live well with hearing loss every day. I'd like to offer CR readers additional suggestions. The telecoil should be first on any list of must-have features for hearing aids. The inexpensive telecoil sensor connects hearing aids wirelessly to room “hearing loops” that can transmit sound from public-address systems or ticket-window microphones directly into hearing aids. Telecoils now come with most hearing aids, but they might not be activated and people might not know how to use them.

With telecoils and telecoil know-how, many people with hearing loss can clearly understand speech in public venues.  
—Barbara Kelley, executive director, Hearing Loss Association of America ([hearingloss.org](https://hearingloss.org)), Bethesda, MD

**EDITOR'S NOTE** *Your hearing aid provider can activate your telecoil and show you how to use it. You can find a partial list of public spaces with induction loop systems at [hearingloop.org/LoopedLiveVenues.pdf](https://hearingloop.org/LoopedLiveVenues.pdf).*

I'VE USED a hearing aid over the past eight years, and I wanted to thank CR for such a fine and complete article on a tough subject. You noted Costco as the top choice, and I could not agree more. Its service by an audiologist before, during, and after the sale has been exceptional. I purchased each pair for less than \$1,700. It is sad indeed that older people may

be apprehensive about hearing aids because of cost, which can be \$5,000 and up elsewhere.  
—David Behrend, Bryn Mawr, PA

AS A CONSUMER ADVOCATE and audiologist, I feel compelled to write. The key to successful hearing aid fittings depends on the provider's adherence to best practice standards. Consumers need professionals who provide testing, as well as counseling on telecoils, TV accessories, and public assistive listening systems. That way, expensive hearing aids will be less likely to end up in the dresser drawer.  
—Juliette Sterkens, Au.D., Oshkosh, WI

THANK YOU for encouraging people to get used to their aids; to wear them entire days, in many situations; and to have them adjusted if they are not performing as they had hoped.  
—Kathryn Haight, Mendota Heights, MN

A COMPANY CALLED Audicus has been offering hearing aids online for several years. You either take its hearing test online or send in one you have had done locally.  
—Joan Gundersen, Oakmont, PA

**EDITOR'S NOTE** *Indeed, you can purchase hearing aids online from several companies. The price may be lower, but if you buy online, be aware that you might not receive the same level of support you'd get at an in-person appointment with an audiologist. And if you need fit adjustments, you may end up paying for a visit anyway.*

YOU LIST “6 MUST-HAVE Features” for hearing aids. I take strong exception to the first item, rechargeable batteries. I paid some \$100-plus for the charger. Rechargeable batteries from Amazon, which last about six months, cost \$10 each. Disposable batteries from Amazon, which last a week, cost \$0.25 each. I wish I had started with disposable ones.  
—Bob Eby, Chapel Hill, NC

### Easing Chronic Pain

I JUST READ the article “Real Pain Relief, Now!” (June 2019). There is no mention of chiropractic adjustments to stop pain. In 1990 I badly herniated some lumbar discs. Nothing helped until I tried a chiropractor. In eight sessions, I had no pain. Not all chiropractors are the same, but with diligence one can often find help without surgery.  
—Joanne Kemp, San Diego

**EDITOR'S NOTE** *You're in good company. In a nationally representative CR survey, 83 percent of people who tried chiropractic therapy for back pain found it helpful. In our section on hands-on therapies, we refer to “spinal manipulation,” which includes chiropractic adjustments. If you go to a chiropractor, make sure he or she is a licensed professional.*



WRITE

Go to [CR.org/lettertoeditor](https://www.consumerreports.org/lettertoeditor) to share your comments for publication.

## ON INFOTAINMENT SYSTEMS

We tell consumers which car infotainment systems work well enough in the hope that people will choose to keep their phone out of their hands.

—The Editors

I WAS SURPRISED that regenerative therapy using one's own stem cells and/or platelets for orthopedic issues was not mentioned. Although it's not currently covered by insurance and can incur a significant expense, this is an alternative that should be considered. From age 68 to 74, I have undergone several rounds of this therapy for chronic pain with great results.  
—Karen Rosenbeck, R.N., Sarasota, FL

**EDITOR'S NOTE** Generally, stem cell treatments for pain are largely unproven and may even be unsafe. The treatment you mention, platelet-rich plasma therapy, is still considered investigational by the American Academy of Orthopaedic Surgeons. It has become popular in treating chronic tendon injuries, but research is limited and results have been mixed. For more on stem cell treatments, go to [CR.org/stem0819](https://www.consumerreports.org/stem0819).

CHRONIC PAIN IS a long-term effect of disrupted postures, strength, and movement. But without consistent, rational advice, most people lack the knowledge to discriminate between discomfort and pain, interjecting doubt and preventing many from pursuing the appropriate course toward healing. Our healthcare policies have promoted the use of prescription medication for "productivity" and to fulfill pain control criteria. There is usually little physical or functional assessment in a medical examination. We

use EKGs to evaluate heart function, but we neglect to assess movement when evaluating the musculoskeletal system. Perhaps we should be preventing or minimizing chronic pain rather than having to treat it.  
—Denise Drazy-Shedd, Sparks, NV

I AM A PHYSICAL THERAPIST who treats chronic pain. Your article mentions physical therapy only briefly. Physical therapy as a whole is underutilized in this country. Physical therapists can offer comprehensive care for the chronic pain sufferer. We not only offer exercises and stretches but also can perform manual therapies, instruct in mindfulness, manage inflammation, and provide postural modifications.  
—Kelley Penrose, P.T., Granger, IN

### Distracted Driving

REGARDING "Choose an Infotainment System You'll Love" (June 2019): Studies indicate hands-free calling or texting is as distracting as handheld. There are too many accidents caused by distracted driving these days, and all the whizbang techno gadgets contribute to a growing problem. CR should be advocating to get that stuff out of autos, not how to use them.  
—Neil Tolhurst, New Hartford, CT

**EDITOR'S NOTE** We agree that any distractions, even hands-free tasks, are bad. The reality is that people will engage in distracting tasks, no matter how much we tell them not to. If the system isn't there, they

will pick up their phone instead. We tell consumers which car infotainment systems work well enough in the hope that people will choose to keep their phone out of their hands.

### Recall Risks

YOUR JUNE 2019 article "The Hidden Risks of Used Cars" was helpful, but it was also infuriating. Consumers have the largest stake in vehicle safety, and getting your own car's recall status is easy. Why put the burden only on dealers, who, as your articles notes, will pass that cost on to consumers? All sellers, including consumers, should be required to confirm the recall status of a vehicle before transferring the title, with the option of either disclosing any open recall(s) or having the repairs made.  
—Michael King, Pensacola, FL

### Moms Use Tools, Too

In "Best for \$100 or Less: Cordless Drills" (Insights, June 2019), the text says, "Need a Father's Day gift for dad or hubby?" I'm surprised to see such old-fashioned attitudes in CR. I've probably used our drill more than my husband has.  
—Abby Farber, West Linn, OR

### Keeping Cool

YOUR REFRESHING ARTICLE "How to Beat the Heat" (Product Update, June 2019) omitted a great alternative to both window air and ducted central air: mini-splits, a ductless system that allows for heating and cooling in individual rooms or zones.

They do away with dusty, complicated duct systems.  
—Hank Ortega, Kerrville, TX

**EDITOR'S NOTE** Though we haven't tested split-ductless models recently, in our past tests all did a good job cooling and were pretty quiet to boot.

### Ant Advice

I WAS DISAPPOINTED that your article "Get Rid of Ants" (Insights, June 2019) didn't mention more nonlethal options that won't pile more poisons into our environment. I've had success with peppermint essential oil by spreading it where ants were entering. I've seen only a couple of ants since. I've heard of using cayenne and other methods, but the good-smelling peppermint oil works for me.  
—Gail Silver, Cincinnati

The article on ants should have cautioned against putting ant baits where pets and children can reach them.  
—Judith Johnston, Wellington, OH

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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.

## Handheld Vacuums

**WE TESTED:** 12 models  
**WE TEST FOR:** How well models remove surface debris from medium-pile carpets and bare floors, how well they pick up pet hair, runtime on a single charge, and more.

**ABOUT THE SCORES:**  
 Median: 69  
 Range: 56-81

**Best Overall**  
 Shark Ion W1  
 WV201  
 \$130

**81**  
 OVERALL SCORE



**Perfect for Pet Hair**  
 Black+Decker Flex  
 BDH2020FL  
 \$110

**78**  
 OVERALL SCORE



**Longest Runtime**  
 Dyson V7 Trigger  
 \$200

**74**  
 OVERALL SCORE



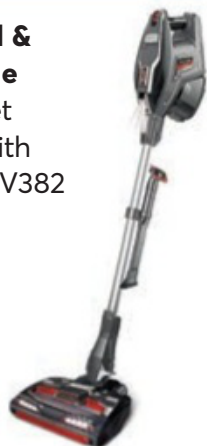
## Stick Vacuums

**WE TESTED:** 38 models  
**WE TEST FOR:** How well models remove surface debris from medium-pile carpets and bare floors, how well they pick up pet hair, runtime on cordless models, and more.

**ABOUT THE SCORES:**  
 Median: 74  
 Range: 38-92

**Best Overall & Very Reliable**  
 Shark Rocket  
 Complete with  
 DuoClean HV382  
 (corded)  
 \$280

**92**  
 OVERALL SCORE



**Cordless & Long Battery Runtime**  
 Bissell Air Ram  
 1984  
 \$200

**87**  
 OVERALL SCORE



**Bargain Buy**  
 Dirt Devil Power Stick  
 SD12530 (corded)  
 \$80

**85**  
 OVERALL SCORE



Ask Our Experts

**I hear there's a new \$700 stick vac. Do I really need to spend that much for a good one?**



YOU PROBABLY MEAN the Dyson V11 Torque Drive stick (at left). Dysons have a history of excellent performance in our rigorous vacuum tests, and this model—with an Overall Score of 75—aced our tests on carpets, bare floors, and pet hair. But at \$700, it's the most expensive model in our ratings. What's more, a recent CR member survey revealed that close to half of Dyson stick vacs will develop problems or break within the first five years of ownership. As a result, Dyson stick vacs no longer get a "recommended" designation. (Though some of the newest models were not in our survey.) Shark is a more reliable brand in our survey, and its corded model above costs less. To learn more about product reliability, turn to page 24.

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.consumerreports.org).

## Cameras, Point & Shoot

**WE TESTED:** 53 models  
**WE TEST FOR:** Image quality; video quality; ease of use, including focusing; and more.

**ABOUT THE SCORES:**

**ADVANCED POINT & SHOOT**  
 Median: 79, Range: 44-85

**BASIC POINT & SHOOT**  
 Median: 62, Range: 33-74

**WATERPROOF**  
 Median: 57, Range: 39-68

**High-Resolution Images & Excellent Video**  
 Panasonic Lumix DMC-LX10 (advanced point & shoot)  
 \$500



**84**  
 OVERALL SCORE

**Sharp Shooter for Less**  
 Canon PowerShot ELPH 360 HS (basic point & shoot)  
 \$180



**70**  
 OVERALL SCORE

**Swell for Snorkeling**  
 Olympus TG-5 (waterproof up to 49 feet)  
 \$400



**68**  
 OVERALL SCORE

## Cameras on Smartphones

**WE TESTED:** 33 models  
**WE TEST FOR:** Image quality of rear cameras and front-facing (selfie) cameras in different lighting conditions, rear 1080p video quality, and more.

**ABOUT THE SCORES:**

Median: 75  
 Range: 58-90

**Stunning Selfies & Best Battery Life**  
 Samsung Galaxy S10+  
 \$1,000



**90**  
 OVERALL SCORE

**Best Quality Videos**  
 Apple iPhone XS Max  
 \$1,100



**90**  
 OVERALL SCORE

**Smart Pick Under \$500**  
 LG G7 ThinQ  
 \$400



**74**  
 OVERALL SCORE

## Wood Stains

**WE TESTED:** 28 models  
**WE TEST FOR:** Appearance of two coats of stain on pine boards after one, two, and three years of weathering, and more.

**ABOUT THE SCORES:**

**SOLID**  
 Median: 68, Range: 12-80

**SEMI-TRANSPARENT**  
 Median: 35, Range: 12-65

**Best Overall**  
 Olympic Elite Advanced Stain + Sealant in One Solid  
 \$43



**80**  
 OVERALL SCORE

**Solid Color for a Nice Price**  
 Behr Deckplus Solid Color Waterproofing Wood Stain (Home Depot)  
 \$31



**74**  
 OVERALL SCORE

**Best Semi-Transparent**  
 Behr Premium Semi-Transparent Waterproofing Stain & Sealer (Home Depot)  
 \$38



**65**  
 OVERALL SCORE

## Sound Bars Under \$500

**WE TESTED:** 27 models  
**WE TEST FOR:** Sound quality, including tonal accuracy and reproduction of fine sonic detail; ease of use; and more.

**ABOUT THE SCORES:**

Median: 52  
 Range: 20-69

**Top-Rated & Easy to Use**  
 Sonos Beam  
 \$400



**69**  
 OVERALL SCORE

**High-Quality Sound for Less**  
 Samsung HW-MS650  
 \$330



**62**  
 OVERALL SCORE

**Versatile Surround Sound**  
 Vizio SB36512-F6  
 \$470



**60**  
 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 Mattresses & More



## My husband's snoring keeps me up at night! Would a change in his pillow help him?

About 37 million Americans snore on a regular basis, according to the National Sleep Foundation. Both men and women snore, but men—particularly those who are overweight—are the most prone to do so. Snoring is caused by a person's airway narrowing or being partly blocked during sleep, often because of floppy tissue in the back of the throat due to excess weight, nasal congestion, or enlarged tonsils.

Wedge-shaped pillows that elevate the head and shoulders during sleep may help ease snoring, says Romy Hoque, M.D., an assistant professor of neurology at the Emory University School of Medicine in Atlanta. The incline keeps

the tongue from blocking the back of the throat.

If your husband's snoring tends to be triggered by lying on his back, you can also try placing a body or bolster pillow against his back. This will help to keep him on his side. And he can consider an anti-snore pillow with a depression in the center designed to keep a sleeper on his side.

But if you notice noisy stops and starts in breathing during sleep, or if he snores even while on his side, be aware that obstructive sleep apnea (OSA) could be the problem. According to the American Academy of Sleep Medicine, OSA is linked to a higher risk of cardiovascular disease, stroke, cardiac arrhythmia, and systemic hypertension. So see a doctor if you think this may apply to you or your partner.

### Do I need a measles booster?

This year, the U.S. has seen the worst outbreak of measles since

the disease was eliminated in 2000. So it's important to assess whether you need a booster, says William Schaffner, M.D., an infectious-disease specialist at Vanderbilt University in Nashville, Tenn.

Anyone born before 1957 is considered to be protected against measles, according to the Centers for Disease Control and Prevention, because they were probably exposed to the virus as a child. But people born in 1957 or later who received the measles vaccine before 1989 may be more vulnerable: They were given a single shot, which is only 93 percent effective. (A two-shot series, which is 97 percent effective, was started in 1989 and continues today.)

To complicate matters further: Between 1963 and 1967, a particularly ineffective version of the measles vaccine was used, so the CDC recommends that anyone vaccinated during those years get at least one dose of the current MMR vaccine.

Not sure of your vaccination status? Your doctor or a walk-in clinic can give you a test called a titer to check your immunity level, regardless of what shot you may have had.

But ask your insurer whether it covers titer tests before you go. The prices vary; CVS Minute Clinics, for example, charge up to \$129 for immunity testing.

It's fine to get a new MMR vaccine regardless. "When in doubt, immunize," Schaffner says.

### I hand-wax my car every summer. What can I do to make the wax coat last?

"Most waxes we've tested lasted only a few months when exposed to normal weather," says Dave Trezza, who has tested car waxes for CR. "Even the very best waxes we tested lasted just six months." So you'll want to hand-wax your car a few times a year, with the change of every season.

For best results, we advise first hand-washing your car, then applying a coat of wax to the dried, cool surface. Don't work in direct sunlight, because heat can make the wax spread unevenly and clump.

If you go to a drive-through car wash, opt for a brushless one, because the brushes in an automated wash can strip off some of your wax job. Spray-on wax treatments at a car wash are mostly cosmetic, giving your car a nice but temporary sheen. It won't be as protective as hand-waxing.



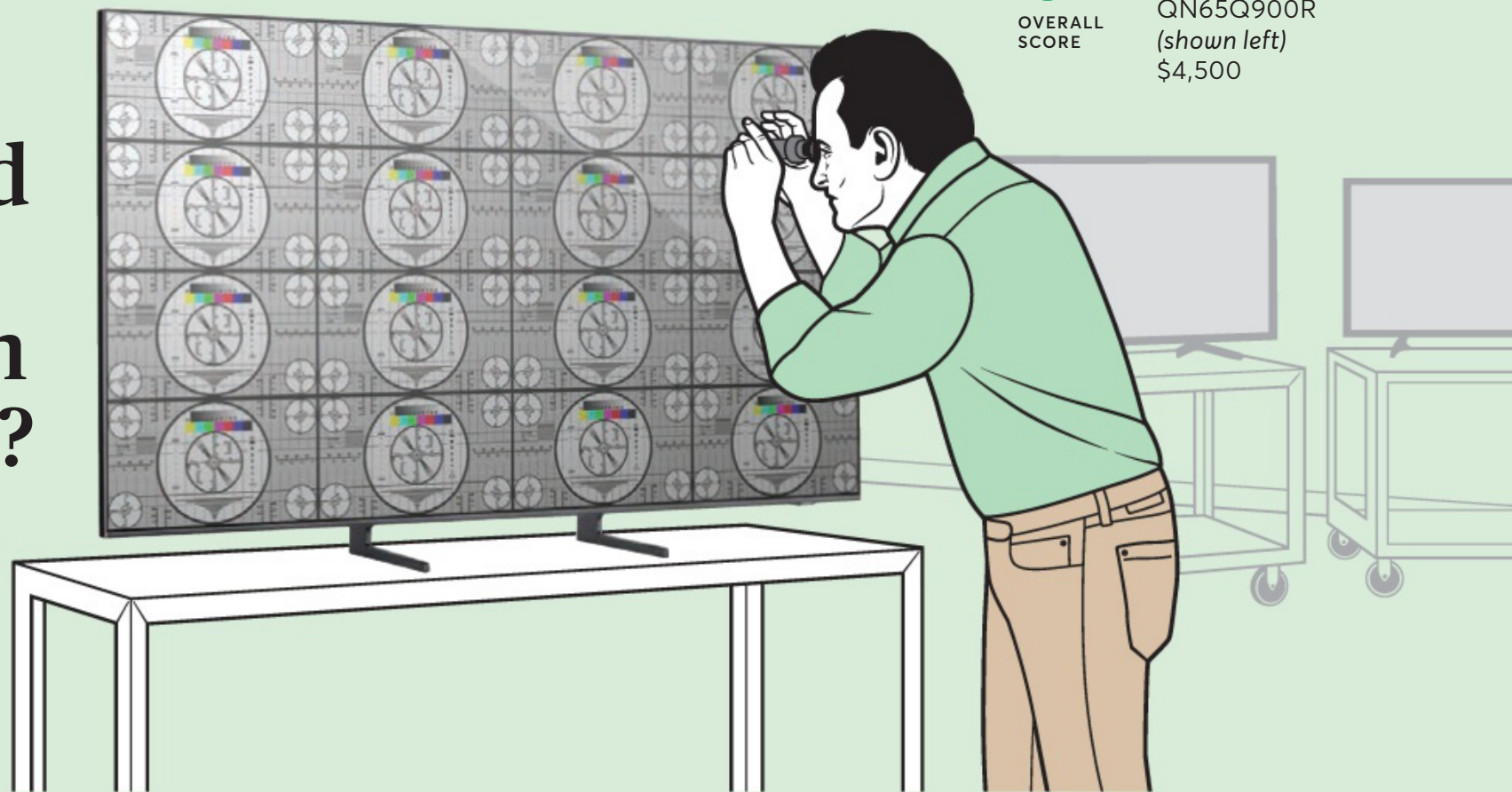
LEARN

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***

## Should You Buy an 8K TV?



**84**  
OVERALL SCORE

**65"**  
Samsung  
QN65Q900R  
(shown left)  
\$4,500

AT MORE THAN 33 MILLION pixels—the tiny dots that make up a set’s picture—8K TVs boast four times the native resolution of 4K TVs, which have about 8 million pixels, or 16 times that of an HDTV with 2 million. This enables an 8K display to produce finer, sharper images. Recently, we tested the 65-inch Samsung QN65Q900R—the first 8K TV to enter our labs.

Claudio Ciacci, who heads TV testing at CR’s labs, puts both 4K and 8K TVs through the same tests, with one exception: **On an 8K TV, we also use a special test pattern (pictured above) that lets us see whether the set can display the full 7680x4320 8K resolution detail it promises.** The Samsung TV aced this test, taking image detail to the next level: It was razor sharp.

Despite being technically impressed, we don’t advise buying this—or any other—8K TV this year. At \$4,500, the Samsung is currently the most expensive set in our ratings, even as prices on great 4K sets have fallen; see prices, below. What’s more, the average viewer will find it almost impossible to appreciate the extra-fine details of an 8K set at the 65-inch size we

tested. And to boot, though there is a lot of 4K content available, there are no native 8K movies or shows yet. That means 8K TVs must upscale lower-resolution content (for example, a 4K movie you want to watch).

That’s not to say that 8K TVs will never make sense—they may in the near future—but, dollar for dollar, we think a 4K set is the better deal right now.

**OUR 4K TV PICKS**

These sets, from 49" to 65", offer excellent viewing experiences.

**65"**  
Sony  
XBR-65A1E  
\$2,500

**90** OVERALL SCORE



**55"**  
LG  
OLED55C8PUA  
\$1,900

**89** OVERALL SCORE



**49"**  
Samsung  
QN49Q70R  
\$1,100

**77** OVERALL SCORE



ILLUSTRATIONS: T.M. DETWILER

Food Sleuth

# How Healthy Is Your Granola?

"There are a lot of land mines when it comes to choosing granola," says Lauri Wright, Ph.D., chair of the department of nutrition and dietetics at the University of North Florida. "You have to be savvy to find the healthiest one." Some granolas are high in added sugars and fat, but they may not be easy to spot without scrutinizing the nutrition facts and serving sizes.

Typically, serving sizes of granola—which we've seen vary from 1/4 cup to 3/4 cup—are smaller than for other, less dense types of cereal (such as Cheerios). But when CR asked 124 consumers to pour out the typical amounts of granola they'd serve themselves for breakfast, most participants poured two to four times the labeled serving size, which means two to four times the calories, fat, and sugars. That's why we recommend measuring out the serving before you put it in your cereal bowl. Don't want to pull out a measuring cup? Instead of eating it straight, sprinkle granola on plain yogurt as a crunchy topping.

CR's testers looked at 38 granolas and recalculated each into 1/3-cup servings for easy comparisons. The picks at right are some of the healthiest.



**NO ADDED SUGARS**  
Back Roads Organic Granola, Ancient Grains (Unsweetened)

\$9 for 12 oz.

CALORIES	172
FAT	12 g
SATURATED FAT	3 g
FIBER	3 g
SUGARS	1 g
PROTEIN	5 g

**Avoid added sugars when possible.**

The Food and Drug Administration will require manufacturers to separate total and added sugars on labels starting in 2020, but until then, "aim for no more than 8 grams of total sugars per serving," says CR nutritionist Ellen Klosz. Claims such as "lightly sweetened" are not regulated, leaving the interpretation up to the manufacturer.

Serving sizes are 1/3 cup.

**HAS GOOD FIBER & FRUIT**  
Bear Naked Granola, Fruit & Nut

\$4 for 12 oz.

CALORIES	172
FAT	8 g
SATURATED FAT	2 g
FIBER	3 g
SUGARS	8 g
PROTEIN	4 g

**Ideally, granola has at least 3 grams of fiber per serving.**

That will help you feel fuller longer. However, some of the granolas we looked at contain added fiber in the form of chicory root fiber. "But it's always better to get your nutrients from whole foods. In cereals, that means looking for whole grains, nuts, and seeds on the ingredients list," Klosz says.

**LOW FAT & LESS CALORIES**  
Kind Healthy Grains Clusters, Raspberry With Chia Seeds

\$5 for 11 oz.

CALORIES	110
FAT	1.5 g
SATURATED FAT	0 g
FIBER	2 g
SUGARS	3 g
PROTEIN	2 g

**Keep an eye on fats.**

It's best if most of a granola's fat is made up of monounsaturated and polyunsaturated fats from nuts and seeds, rather than saturated fats, which are likely to raise cholesterol. Granola mixes typically also contain oil—in some cases coconut oil, which can add significant amounts of saturated fat to the mix.

PHOTOS (BOTTOM FROM LEFT): Z.P. MEYERS/BARNEY HILLERMAN PHOTOGRAPHIC COLLECTION/OKLAHOMA HISTORICAL SOCIETY; CONSUMER REPORTS; OPPOSITE PAGE: JOHN POWERS/CONSUMER REPORTS

CR Time Traveler SUPERMARKETS



**1936** Sylvan Goldman, owner of the Humpty Dumpty supermarket chain in Oklahoma, invents and patents the shopping cart.

**1941** The frozen food aisle is not yet universal. This grocery store in Maryland tells CR that the equipment is expensive and that frozen food prices are higher than many customers can afford.



**1957** CR reports that supermarkets are the top cigarette sellers, with 32 percent of total sales—more than vending machines and drugstores combined.

**1961** With smart store-brand comparisons, we help readers save \$200 a year. Of these three mayo products, two store brands cost 55 cents, while Hellmann's costs 73 cents.



**Face-Off**

# Affordable Roadsters

SUMMER INSPIRES DREAMS of top-down, wind-in-your-hair road trips. (C'mon, who doesn't love the idea of whizzing toward the beach in a convertible for two?) In these sporty numbers, you'll sacrifice some space, ride comfort, and quiet for driving thrills—and many drop tops, like the BMW Z4 we recently tested (see page 63), carry a

price tag upwards of \$50,000.

But there are some roadsters that offer zippy fun at a more practical price: the Fiat 124 Spider and Mazda MX-5 Miata. These two similar models are actually both built by Mazda in Japan, but each comes with a slightly different character.

The Miata is the sportier version, with agile handling;

super-responsive steering; a fuller, exciting engine sound; and a crisp manual shifter. Alas, the stiff ride and noisy cabin (even with the top up) don't make it ideal for daily use. Like the Miata, the Fiat 124 Spider is nimble to drive, but its ride is a bit more comfortable—more cruiser, less go-kart—than the high-revving Miata's.

Both cars are a delight to

drive and provide many of the BMW Z4's sports-car qualities. Sure, their tops are manually operated and the seats and cabin aren't nearly as plush as in the Z4. But at about half the price, these roadsters could be a guilt-free joy ride. Of the two, we recommend the Mazda for its more lively and responsive driving performance and reliability.



**Fiat 124 Spider**  
\$25,190-\$29,290

**64**  
OVERALL SCORE

76	ROAD-TEST SCORE	80
↓	RELIABILITY	↑
↓	OWNER SATISFACTION	↑
\$29,905	PRICE AS TESTED	\$29,985
7.1	0 TO 60 MPH (SEC.)	6.7
31	CR'S OVERALL MPG	34

✓ **Mazda MX-5 Miata**  
\$25,730-\$37,995

**79**  
OVERALL SCORE



**1976** CR tells readers that they don't always get what they pay for when it comes to eggs. Our evaluation of cartons of "Fresh, Grade A Eggs" (which cost about \$1) finds that they aren't truly fresh, and many are not up to "Grade A" standards.



**2019** In our latest grocery store survey of 96 chains—the most we've ever rated—Trader Joe's is the highest-rated national chain.

**1972** Kroger becomes the first grocery retailer in America to test an electronic scanner in one of its stores.



**1980** Whole Foods Market is founded in Austin, Texas, with a staff of only 19 people.



**1993** CR reports that errors made by automated supermarket checkout systems cost consumers an estimated \$2.5 billion in overcharges a year.

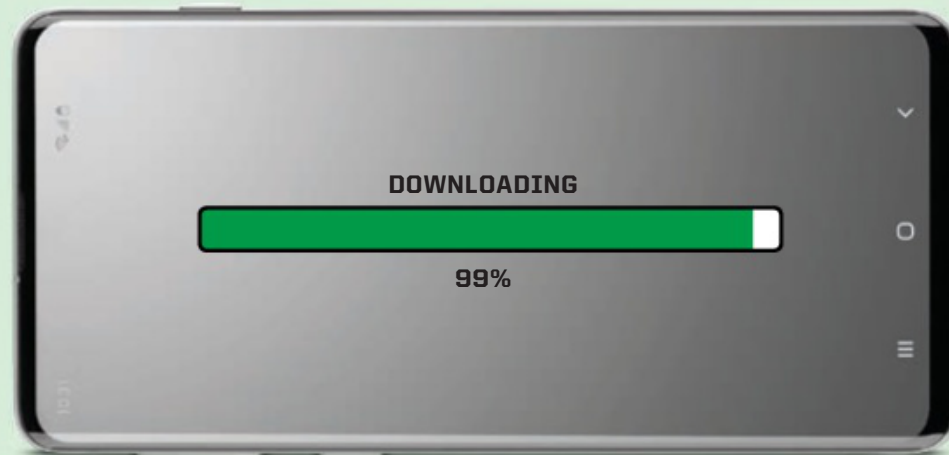


**87** OVERALL SATISFACTION SCORE



*Still Confused By ...*

# 5G for Your Smartphone



**The 5G Fast Track**  
You'll be able to download movies like "A Star Is Born" (above) from the cloud to your phone in a flash with 5G.

YOU'VE PROBABLY BEEN hearing a lot about the new "5G" networks. But what does "fifth-generation wireless" really mean for consumers?

Mostly, the answer is speed. 5G speeds—which are up to 20 times faster than

4G connections at peak performance—are so fast that they will eventually allow users to download a full-length HD movie in just a few seconds. Long term, these speeds may also pave the way for new technologies that would require

instantaneous response times, such as robotic surgery and self-driving cars.

When can you have the power of 5G in hand? Three of the four major telecommunications carriers have begun rolling out 5G service in select urban

locations (see our chart, below), and the fourth, T-Mobile, says it will have a 5G network before the end of 2020. A few phone manufacturers have already begun to release 5G-capable phones, which you'll need to access the 5G networks.

	5G PRICING	5G CITY COVERAGE	COMPATIBLE 5G PHONES	CR'S TAKE
<b>VERIZON</b>	On top of its 5G access BeyondUnlimited plan, which currently costs \$85 per month for a single line or \$50 to \$60 per month each for four lines, Verizon will charge an additional \$10 per 5G device. But a limited-time offer currently waives the \$10 fee.	More than 30 cities by the end of 2019	<b>Motorola Z3</b> You'll pay \$480, or \$240 over 24 months, for the phone plus \$200 for a "moto mod" (see right).  <b>Samsung Galaxy S10 5G</b> \$1,300, exclusive to Verizon for a limited time.	Verizon offers the most compatible devices so far: You can use a Motorola Z3 smartphone with 5G if you buy a "moto mod," which snaps onto the Z3 (much like a phone case) to make the phone 5G-capable. Plus, the Samsung Galaxy S10 5G phone will be exclusive to Verizon for a short time.
<b>AT&amp;T</b>	AT&T has yet to roll out pricing for a consumer 5G network, but the company plans to do so in 2019.	At least 21 cities in 2019	AT&T plans to offer at least three 5G mobile devices in 2019, including the <b>Samsung Galaxy S10 5G</b> , \$1,300, once it is no longer exclusive to Verizon.	Though AT&T's 5G network has been set up in certain cities, you can't access it on 5G-capable smartphones just yet. In the meantime, AT&T offers a high-speed 4G service called "5G Evolution"—but has been criticized for using the term "5G" in the name, which could mislead consumers.
<b>SPRINT</b>	Specific pricing has not been released yet but will require signing up for Sprint's Unlimited Premium plan—which is currently \$80 per month.	9 cities	<b>LG V50 ThinQ</b> \$1,152, or you can lease the phone for \$24 per month.	Sprint has rolled out 5G service to select parts of Atlanta, Dallas, Houston, Kansas City, and others.

Do More With ...

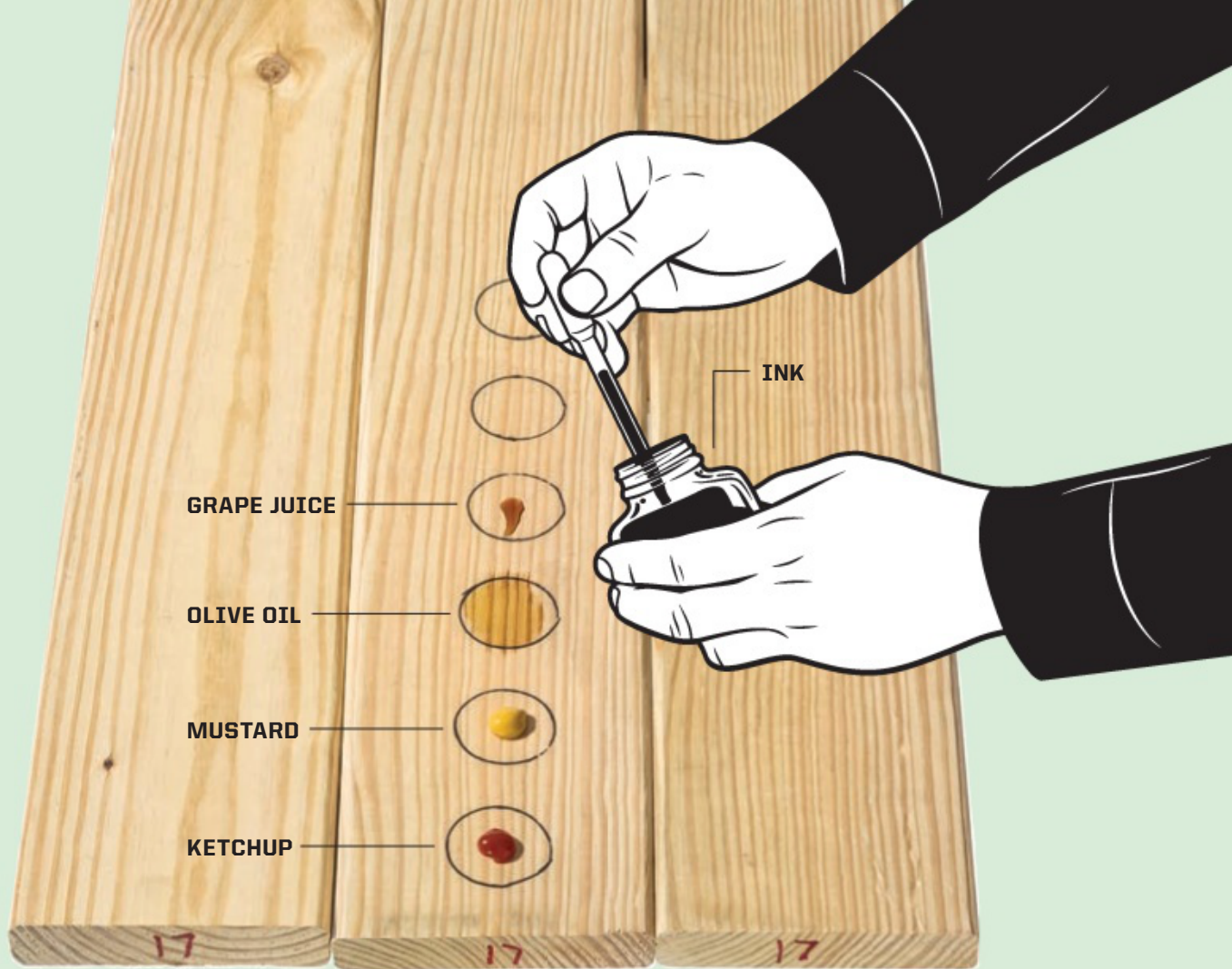
# Stackable Cookware

Short on storage? Finding a good set of pots and pans can be hard enough without worrying about how to stash them all into your kitchen cabinets. But one stainless set we tested, **Calphalon's Premier Space Saving cookware**, may fit the bill. This set (which comes with either eight or 10 pieces for \$320 or \$380, respectively) has pots and pans that are designed to stack and nest neatly together. And that doesn't mean they skimp on performance: These pots and pans earn the top spot in our ratings of uncoated cookware and a Very Good rating in our cooking evenness tests. Though uncoated sets aren't quite as easy to clean as those with a nonstick coating, the stainless handles are long and sturdy—besting a \$630 All-Clad set in our handle test. And you can use these dishwasher-safe pots and pans on any type of range, including induction, as well as pop them into the oven up to 500° F. Plus, they come with a lifetime warranty.



70

OVERALL SCORE



How We Test

# Decking

WHEN YOU INVEST the time and money required to build a deck, you want it to last—which is why CR takes more than three years to test decking material.

First, we test the product's performance right out of the box, assessing how much it flexes, how much friction it provides to prevent slips, and its resistance to surface damage (such as from a dropped flowerpot)

and general wear. We also test how it stands up to stains from common spills like ketchup and mustard (shown above).

Then we send decking samples to Florida and Arizona, where they face demanding, real-world conditions of dry heat, humidity, and strong sunlight. At the one-, two-, and three-year marks, we repeat all our tests to see how the materials hold

up and whether they sag, and we check how well they retain their color after weathering.

Currently, all of our samples are only one year into their three-year testing cycle, so they have not earned an Overall Score yet. But if you need to make a decision now, our testers suggest the decking products below, which have done well in our tests so far.

	WOOD Southern Yellow Pine	COMPOSITE Fiberon Horizon	VINYL CertainTeed EverNew Vinyl Decking	ALUMINUM LockDry Aluminum
	\$0.70 PER SQ. FOOT	\$2.92 PER SQ. FOOT	\$2.75 PER SQ. FOOT	\$3.80 PER SQ. FOOT
RESISTANCE TO ...				
FLEXING	↑	↓	↓	↓
SLIPPING	↑	↓	↓	↓
STAINING	↓	↑	↑	↑
SURFACE DAMAGE	↓	↑	↓	↓
ONE-YEAR EXPOSURE	AVERAGE	AVERAGE	BETTER	AVERAGE



## RECALLS

TO STAY INFORMED ABOUT RECALLS FOR YOUR VEHICLES, READERS WITH MEMBERSHIP CAN USE OUR FREE CAR RECALL TRACKER AT [CR.ORG/MORE](http://CR.ORG/MORE).



### TOYOTA YARIS

Toyota is recalling approximately 43,000 of certain 2015-2017 Yaris hatchback cars because the wire harnesses connecting the side airbag sensors in the front doors to the airbag control unit could corrode over time and cause the airbag warning light to come on. In addition, the front-seat side and curtain shield airbags could be deactivated, or not deploy in a crash. **What to do:** Toyota will notify owners, and dealers will replace the wire harness in one or both doors, as necessary, free of charge. Call Toyota at 800-331-4331 for details.

### CHESTS OF DRAWERS

South Shore Furniture is recalling about 310,000 Libra-style three-drawer chests because they're unstable if they aren't anchored to the wall, posing serious tip-over and entrapment hazards that can result in death or injuries to children. The chests were sold online from October 2009 through July 2018 for about \$60. **What to do:** Stop using the chest if it is not anchored to the wall, and put it in an area that children cannot access. Call South Shore at 855-215-4932 or go to [southshorefurniture.com](http://southshorefurniture.com) for

details about the models and the various options for refund or remedy.

### COFFEE PRESSES

Starbucks is recalling about 230,000 Bodum + Starbucks co-branded recycled coffee presses because the plunger knob can break and expose the metal rod, posing a laceration hazard. The presses were sold at Starbucks stores and on its website from November 2016 through January 2019 for about \$20. **What to do:** Stop using the coffee press and call Starbucks at 888-843-0245 or go to [starbucks.com](http://starbucks.com) for instructions on how to return the press and get a full refund in the form of a store credit. Returns will not be accepted in stores.

### ANESTHETIC PRODUCTS

Hush is recalling about 275,000 anesthetic gels, sprays, and foam soaps because the packaging is not child-resistant as required by the Poison Prevention Packaging Act. The products contain lidocaine, which poses a risk of poisoning to young children if they put the products on their skin or ingest them.

They were sold online and at tattoo studios from January 2009 through November 2018 for \$15 to \$46.

**What to do:** Put all of these products out of reach of children. Call Hush at 888-723-3730 or go to [hushanesthetic.com](http://hushanesthetic.com) for details and to get a full refund, free replacement product, or free replacement child-resistant cap.

### OFFICE WORKSTATIONS

Knape & Vogt is recalling about 76,000 sit-stand office workstations sold under various brand names because the workstation can malfunction, causing the gas cylinders to separate and forcefully discharge, posing an injury hazard. The stations were sold at Knape & Vogt authorized sellers, including online from various sites, from October 2016 through February 2019 for \$350 to \$560. **What to do:** Call Knape & Vogt at 888-667-1501 or go to [knapeandvogt.com](http://knapeandvogt.com) for more details and to arrange for a free in-home/office repair.

### PORTABLE COOLERS

Igloo is recalling about 60,000 Marine Elite coolers because the stainless steel latch can automatically lock when the lid is closed, allowing a child or small person to become locked inside the large, airtight container, and posing entrapment and suffocation hazards. The coolers were sold at home and recreational stores and online from January 2015 through March 2019 for \$10 to \$180. **What to do:** Put the coolers out of reach of children. Call Igloo at 866-509-3503 or go to [igloocoolers.com](http://igloocoolers.com) for details and instructions on removing and disposing of the old latch and getting a free replacement latch.

### WIRELESS CHARGING PADS

Imagine Nation Books is recalling about 64,000 wireless phone chargers because they can overheat while in use and pose a burn hazard. The chargers were sold in toy, gift, and electronics stores and at book fairs from March 2018 through March 2019 for \$10 to \$11. **What to do:** Stop using the charger and call Imagine Nation Books/Collective Goods at 800-201-5606 or go to [collectivegoods.com](http://collectivegoods.com) for a full refund.

### PORTABLE GENERATORS

Firman Power Equipment is recalling about 19,000 portable generators because the carbon canister can leak gas and pose a fire hazard. The generators were sold at Costco stores and on its website from January 2019 through March 2019 for about \$500. **What to do:** Stop using the generator and return it to the store where you bought it for a full refund, or take it to a Firman service center for a free inspection and repair. For details, call Firman at 844-459-8457 or go to [firmanpowerequipment.com](http://firmanpowerequipment.com).

### CHARGING CABLES

Target is recalling about 90,000 Heyday USB charging cables because the metal around the cord can become electrically charged if it contacts the wall charger plug prongs while charging, posing shock and fire hazards. The cables were sold at Target stores and on its website from June 2018 through January 2019 for about \$15. **What to do:** Stop using the cable and return it to any Target store for a full refund. Call Target at 800-440-0680 or go to [target.com](http://target.com) for details.

# Product Update

The latest ratings from our labs

One-quarter of Americans say they drink smoothies regularly ...

50%

For the taste.

32%

To be healthier and consume more fruit.

23%

To get more protein.

20%

To easily include vegetables in their diet.

Source: Kashi 2016 survey of over 1,000 Americans.

## Best-Bet Blenders

These versatile countertop appliances can cost \$50 or \$650. Our experts cut through the swirl of options so that you can pick the right one for your needs.

by Perry Santanachote



✓ VITAMIX  
ASCENT SERIES  
A3500 \$650

82 OVERALL SCORE



INSIDE  
CR'S LABS

CR tester Cindy Fisher whips up virgin piña coladas to judge how well a blender makes icy drinks.

## Product Update

**FIRST INVENTED AS** a way to whip up malted milks in the 1920s, blenders have remained a kitchen staple for almost a century. But the range of what this countertop appliance can do has widened considerably in just the past decade—far beyond the classic milkshake.

Certain newer models boast wattage equivalent to 2 to 3 hp—as much power as a 50-cubic-centimeter engine on a moped—which means they can pulverize ice, fruits, vegetables, and most other foods in less than a minute. Some can also perform culinary feats that the average blender can’t, such as grinding nuts into nut butters and heating up ingredients as they’re being transformed into soup.

For example, Vitamix models, which are considered “pro style” or “high performance” blenders, have dominated our ratings since we began testing the brand in 2006, earning a score of Excellent in many of the metrics we test. They’re built to last, too; Vitamix models well outlive their five- to 10-year warranties. In fact, Vitamix is the only blender brand that garners Excellent ratings for predicted reliability and owner satisfaction out of 11 brands included in CR’s most recent member survey (see “Will Your Blender Last?” at right). That may be partly because its blenders use high-quality materials—its blades are made of hardened stainless steel, and its jars are Eastman Tritan copolyester (one of the best materials money can buy)—to withstand lots of torque.

But that kind of power, design, and functionality—while certainly impressive—comes at a premium price: The Vitamix home-use models we rate start at \$350 and go to \$650. Plus, they’re overkill if you mainly want to blend the occasional smoothie after a workout or serve up a batch of homemade frozen drinks to friends.

“Currently, all full-sized blenders



## Will Your Blender Last?

We surveyed our members about the full-sized blenders they purchased from 2008 to 2018 and used the data to develop ratings for predicted reliability and owner satisfaction. Here’s how the brands stack up.

Brand	Predicted reliability	Owner satisfaction
Vitamix	⬆️	⬆️
Ninja	⬆️	⬆️
Breville	⬆️	⬆️
Braun	⬆️	⬆️
Cuisinart	⬆️	⬆️
KitchenAid	⬆️	⬆️
Oster	⬆️	⬆️
Waring/Waring Pro	⬆️	⬆️
Black+Decker	⬆️	⬆️
Hamilton Beach	⬆️	⬆️
Blendtec	⬆️	⬆️

Source: Consumer Reports 2018 Summer Survey.

go through the same tests in our lab, regardless of wattage,” says Emilio Gonzalez, who oversees CR’s small-appliance testing. But as blenders continue to evolve, more high-powered models are entering the market, performing well in our tests—and subsequently burying conventional budget-friendly blenders further down in our ratings. “But those middle-of-the-pack blenders might be ideal for someone with more modest needs,” Gonzalez says.

In other words, a blender that costs less than \$100 and does well in our tests could be a perfectly solid choice for the average home user.

But if you plan to use your blender regularly for dishes that go beyond the basics and you can afford it, then, by all means, buy one of our chart-toppers. You’ll have the creamiest smoothies, silkiest soups, most finely milled whole grains, and glossiest nut butters, and your crushed ice will look like freshly fallen snow.

Be aware, however, that some pricey upgrades have nothing to do with performance per se: wireless connectivity, blender base finishes such as stainless steel and shiny enamels, programmed presets, and touch-screen interfaces. Another counterpoint: A few stripped-down models even outperform many high-end blenders in our tests. (See page 22 for our review of the Ninja Professional NJ600, which scores higher than some of its more expensive competitors.)

To help you to explore beyond the top of our ratings and find the right blender for your culinary lifestyle, we’ve sifted through more than 80 tested models and hand-picked 18 blenders from our ratings. Then we sorted them into price ranges, with explanations of what you get (and what you don’t) within each tier. Using our guide on page 22, you can decide for yourself exactly what you need and find the very best blender for your buck.

# If Blenders Could Talk ...

... they'd tell you about the care they need so that you get the most out of them, for as long as possible.



## I need regular baths.

Even if I'm labeled as dishwasher-safe, I recommend that you wash me by filling my container half full with water, adding a few drops of liquid dish soap, and running me on high for 30 to 60 seconds. Rinse, drain, and done. If I'm looking especially grody, give me a spa treatment: Sprinkle ¼ cup of baking soda in the container and add 1 cup of white vinegar. The mixture will fizz. Once it settles, add 2 cups of warm water and run me on high for 1 minute, then rinse and drain.



## Some like it hot, but I might not.

Many blenders can't handle high temperatures. Check my manual before attempting to add hot ingredients. One clue that I'd rather play it cool? My lid won't have a feeding hole. Steam needs an escape route, or it'll build up too much pressure inside the jar, causing me to literally blow my top.

## I wear a cap for good measure.

The removable round cap in the center of my lid does more than plug up the feeding hole. It's also a measuring cup for when you need to add 1 to 2 ounces of this or that.



## Check out my pulse.

My pulse button often gets ignored, but it's one of the best ways to crush ice and break down hard foods, such as frozen fruit, to better blend with liquid. These powerful bursts also allow me to chop foods into uniform bits when you want me to make chunky salsas instead of baby food purées.

## You should give me some breathing room.

Load me up beyond the max-fill line and I just can't do my job. (Also, keep in mind that foods and liquids tend to expand as they're blended.) To whip up that smoothie, I need enough air at the top of the pitcher to create a vortex: The ingredients should whirl around the walls of my pitcher, creating a vacuum

in the center that pulls air downward, and all those ingredients with it.

## Take it slow, please.

For any task, start out on my low-speed setting and work your way up to medium or high (except when using the pulse button). This reduces wear and tear on my motor. Plus, hitting high speeds from the start splatters food onto the sides and lid, so you'll have to scrape more when it's time to clean me up. It can also leave chunky bits up high in the pitcher that don't fully blend.



## I'm a loudmouth.

At around 92 decibels, I make more noise than any other appliance inside your home. That's nearly on a par with a leaf blower's racket, so you may want to use ear plugs if you're using me for longer than just a few minutes.

## I grind my teeth under stress.

My gear teeth—aka drive socket, coupler, or clutch—connect my blade to my motor. This part is prone to breakage if my container is not seated correctly. To ensure proper alignment:

Before turning me on, make sure the bottom of my container, where the upper gear teeth are, is flush with the top of the blender base, where the bottom gear teeth are. And please—never remove or rock the pitcher while I'm blending.



## I need to be burped.

If the mixture stops circulating, an air bubble may be trapped between the mixture and my blade. The scientific term for this air pocket is "cavitation," and it's caused when the mix is too solid or too cold. When this happens, the blade spins in my cavity and can't reach the mixture. If you have a tamper stick, insert it through the lid hole and stir until I burp and start whirring again. Or stop the motor and use a rubber spatula to press the air bubble out of me. You may need to add more liquid, too.

## I love my curves and wrinkles.

The curves and ridges you see inside my jar aren't there just for style; they're necessary to disrupt the circular flow of the mixture you're blending, helping to fold the contents back toward the blade.

# Meet Your Blender Contenders

To help you to spend wisely, we analyzed more than 80 full-sized blenders and identified specific features you'll find in four price tiers.

## \$35 to \$50

Budget blenders generally have glass jars with removable blades and smaller, 5- to 6-cup capacities. Wattage is on the lower end, from 450 to 700 watts. These models can handle lower-intensity blending tasks, such as fresh fruit smoothies and shakes.

### Best Bargain Basic

**OSTER MASTER SERIES 800**  
\$50

69



This 500-watt blender can handle most simple tasks, earning ratings of Very Good in our tests for icy drinks, purées, and crushing ice. But save the more strenuous tasks, such as grinding nut butters, for higher-wattage models.

### Frugal Frozen Drinks

**OSTER 10 SPEED 6832**  
\$35

64

Oster's no-frills 450-watt blender aced our ice-crushing test, earning an Excellent rating. That means it'll be a workhorse for parties, whether you want fine ice flakes for your mint julep or an entire pitcher of frozen margaritas.

### Best Budget Buy for Smoothies

**HAMILTON BEACH DIGITAL SMOOTHIE SMART 56207** \$50

58

This 400-watt blender earned an Excellent rating in our smoothies test but low scores for everything else (which may explain its Poor rating for owner satisfaction). For daily smoothies, this bare-bones model will do just fine.

## \$75 to \$150

If you see a model in this price range with less than 700 watts, you may be better off opting for a less expensive one. More power isn't always a plus, though, if the motor isn't matched with an efficient blade and jar. Because of the increase in torque and speed, shatterproof plastic will replace glass jars. Typically, blenders with 1,000 or more watts can handle larger-capacity jars and can complete tasks faster. You may also be paying more for premium finishes and accessories, such as personal-sized cups.

### Most Bang for Your Blender Buck

**NINJA PROFESSIONAL NJ600**  
\$100

81



A moderate price and stellar test results make Ninja's midgrade 1,000-watt model a CR Best Buy. The sharp, stacked blades unique to Ninja are great at slicing foods but may dull over time; a replacement blade costs \$24.

### Mighty Multitasker

**INSTANT POT ACE MULTI-USE**  
\$100

73

At 600 watts, this model offers features, not power. A heater in the blender's base can sauté raw vegetables before puréeing, which worked well when we made soup. It also has a preset for plant milks and is excellent at crushing ice.

### Super for Soups

**BLACK+DECKER PERFORMANCE FUSIONBLADE BL6010**  
\$100

64

While this 1,100-watt blender left ice chunks in our icy drinks test, smoothing out soups is where it earns an Excellent score. It also receives top marks for ease of use. The 8-cup jar is made of premium Eastman Tritan plastic.

### Quick Blends for a Crowd

**BRAUN PUREMIX POWER JB7350**  
\$100

73



This sleek machine earns Very Good ratings across the board. You get twice the wattage as the \$50 Oster, which means a faster blend that can also handle a slightly larger load in the jar. And it's one of the quietest in our ratings.

### The Perfect Purée

**MIDEA CYCLONBLADE HIGH SPEED MBL17HS**  
\$140

72

With a large 8.5-cup plastic container and 1,400-watt motor, this blender garners an Excellent rating in our purée test. A tamper stick (which is nice but not necessary) is included, along with two personal-sized cups for to-go smoothies.

### A Blending Beauty

**CRUX CRX14546 7-SPEED**  
\$90

61

This 800-watt Crux earns a Very Good rating in our purée test. Its plastic jar is made of Eastman Tritan, a high-grade copolyester often found in upper-tier blenders. The base has a design-forward matte gray finish.

## \$200 to \$400

In what are considered “high performance” models, you’ll find improved motors, with wattages equivalent to 2 hp or higher (1 hp is 746 watts). These also have the speed and torque to handle nut butters, whole-fruit juicing, and other heavy-duty blending tasks. Also expect thicker plastic jars (Eastman Tritan copolyester ones are most durable and are BPA-free), sturdier blades (often permanently attached to the jar), and metal drive sockets for added durability.

### Have Smoothies, Will Travel

✔ **NINJA WITH DUO AUTO-IQ BL642**  
\$200

80



This Ninja makes smoothies that rival those made by top-tier models. For twice the price of the Ninja NJ600, you get a smidge more power and three to-go cups. The one-year warranty is skimpy; others at this price offer five years.

### The Modern Throwback

✔ **DASH CHEF SERIES DIGITAL**  
\$200

77

Presets make excellent frozen drinks and soups a breeze, but you’re also paying for a built-in timer and retro candy-colored finishes. It’s pretty enough to be left out on display, but its 22-inch height won’t fit under most cabinets.

### Easy, Speedy Purées

**HAMILTON BEACH PROFESSIONAL 58850** \$250

71

In our tests, this 1,400-watt blender ranks almost identically to the \$140 Midea: Both are excellent for soups and very good for smoothies. For \$110 more, this model adds seven speeds, a five-year warranty, and an LCD timer, and is quieter.

### Personalized Presets

✔ **CUISINART HURRICANE PRO CBT-2000** \$300

78



It’s noisier than most, but this 1,500-watt Cuisinart rates Excellent in our tests for icy drinks and puréeing soup. The presets can be customized beyond the prescribed times, and a rare memory function can save your preferences.

### The Be-All Blend-All

**VITAMIX EXPLORIAN SERIES E310** \$350

75

Vitamix’s entry-level model aces the purée test and gets a Very Good score for smoothies. Its motor is very similar to the Ascent’s (top right) and can prep hot soups, frozen desserts, nut butters, and more—but lacks the touch screen.

### Heavy Hitter

**KITCHENAID HIGH-PERFORMANCE SERIES KSB6060** \$360

70

With a 3-hp motor, this monster of a machine can obliterate ice and root vegetables in seconds. Its die-cast metal base is nearly 1 square foot and weighs 17 pounds, so it stays put as you blend. And it comes with a 10-year warranty.

## \$400 to \$650

These top-tier picks might not outperform models in the \$200-to-\$400 range, but they boast features such as microprocessor-controlled presets that take the guesswork out of blending, plus touch screens, wireless connectivity, and more.

### The Vanguard

✔ **VITAMIX ASCENT SERIES A3500** \$650

82



This smart, 1,640-watt blender didn’t perform better than lower-priced Vitamix models in our tests, but it has high-tech presets and wireless program updates. It even automatically adjusts its speed and power to match different jar sizes.

### Next-Level Smoothies

**TRIBEST DYNAPRO COMMERCIAL VACUUM DPS-1050** \$495

74

Tribest’s 1,865-watt blender includes a vacuum pump attachment that removes oxygen from the jar before blending. The result is a smoother smoothie with less foam. It comes with a 15-year warranty, the longest we’ve encountered.

### Repair-Prone Splurge

**BLENDTEC DESIGNER 625** \$500

54

Blendtec blenders get a Fair rating for predicted reliability, just one mark above the lowest grade. But this one did well in our performance tests, and the brand is rated Excellent for owner satisfaction. It also has a generous eight-year warranty.



THE

MOST RELIABLE

APPLIANCE

BRANDS,

REVEALED

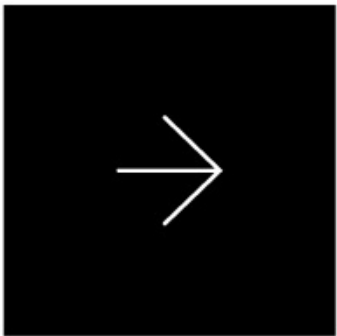
When you buy an appliance, you want it to be the start of a long, beautiful relationship. But too many people find themselves with problem-prone machines that can be expensive to repair. Our first-ever Appliance Brand Reliability Rankings can help you to choose the most trustworthy appliances, from among 24 brands, for your kitchen and laundry room.

**by Lauren Zanolli**



**PICTURE  
PERFECT**

You might fall in love with a bottom-freezer fridge because it's more reliable than most other refrigerator types.



**When Russell Schwager,** a software engineer in Boston, was preparing his house for Passover, he didn't think much about hitting the self-clean mode on his Electrolux ovens. But that move led to

a holiday headache when the range door locked up and the wall oven stopped heating, rendering both ovens unusable.

"It definitely made our lives more difficult," Schwager says. His family keeps kosher, so during Passover they couldn't rely on takeout. Instead, they survived on leftovers from his in-laws and pizzas from kosher kits cooked in the toaster oven.

Several weeks and about \$600 in repairs later, Schwager was suffering a serious bout of buyer's remorse. He and his wife had purchased five Electrolux appliances four years before, largely because of the design and dimensions, and only the microwave had remained problem-free. "We were looking for nice stuff that was a step up," Schwager says. "I viewed Electrolux as a brand that way, and it's just not."

Consumer Reports asked Electrolux for a comment, and the company said, "Electrolux takes product reliability very seriously, and we know it is a top priority for our consumers."

### Failure Is Not an Option

Major appliances are a big purchase for most people, and buyers want them to last. Consumer Reports' surveys have found that our members rank reliability—from refrigerators to laundry machines—as more important than price or performance. "We see this in other product categories, but it's most noticeable for major appliances," says Simon Slater, associate director of

survey research at Consumer Reports.

It makes sense that reliability would be important to appliance shoppers. These are complex, mission-critical machines that can cost thousands of dollars and are so bulky that they typically need to be delivered and installed. They perform many of the basic chores of domestic life—cooking, cleaning, preserving food. Until they don't. And suddenly the entire household is thrown off-kilter. Because when your refrigerator breaks, you need to either fix it or replace it, stat, before those Omaha Steaks at the back of the freezer go bad.

According to CR's 2018 surveys, depending on appliance category, 15 to 40 percent of appliances, on average, will develop problems or break within the first five years. But our data show that some brands are far more reliable than others. That's why CR is rolling out our first-ever Appliance Brand Reliability Rankings (see page 28). It lets you quickly compare brands across all major appliances.

Take Electrolux: It ranks second

to last among 24 brands, with Poor predicted reliability ratings for refrigerators, dishwashers, cooktops, and over-the-range microwaves. The one bright spot: Electrolux washing machines earn a Very Good rating for reliability. But you can see how this spottiness would be problematic if you're considering buying multiple appliances from the same brand. Just ask Russell Schwager.

### The Quest for Quality

In recent decades, appliances have become far more energy-efficient and feature-rich. Compared with models made in 1990—three years after the first federal mandates on minimum energy efficiency in appliances—the average new washing machine uses 70 percent less energy. Refrigerators now use about a quarter of the energy they required in 1973. It all adds up to savings on your utility bills.

These technological improvements come with increased complexity, such that appliance repair technicians are now likely to carry a laptop and digital diagnostic tools along with the classic bag of wrenches. "Appliances today have sensors and circuit boards to control and monitor functions," says Jim Nanni, director of appliance testing at Consumer Reports. "Moisture sensors in your dryer stop it when your clothes are dry; turbidity sensors in your dishwasher tell it how long to run. But all the electronics introduce reliability problems that weren't common 30 years ago."

That means manufacturers have to constantly evolve quality control and measures to strengthen reliability.

GE Appliances, for example, has more than 50 product evaluation labs at its Kentucky headquarters. Some are dedicated to testing how its smart appliances will stand up to real-world conditions—think blasting a washing machine with electromagnetic interference to see whether it can maintain WiFi connectivity.

## MUST LOVE COOKING

Ranges are the least problem-prone major appliance in your kitchen.



Miele, which ranks near the top of our new Appliance Brand Reliability Rankings, conducts accelerated lifetime testing in a lab. Dirk Sappok, Miele's director of product development, says that because the company positions itself as a premium brand, it prioritizes appliance longevity in a way that certain other manufacturers might not. "Your standard, run-of-the-mill appliances have tended to become more disposable vs. the luxury side of the business," he says. Miele estimates that its products will last about 20 years, double what many other manufacturers claim.

Blake Kozak, senior principal analyst for appliances at market research firm IHS Markit, predicts that consumers will eventually benefit from advanced diagnostic technology. "The long-term objective is to alert the consumer when an appliance is needing repairs or maintenance, before a small issue turns into a huge cost," Kozak says. In that vision of our appliance future, some complexity could improve reliability.

### Repair or Replace?

Appliances were simpler machines in the 1980s, when Steven Sheinkopf started working at Yale Appliance

and Lighting, a retailer based in the Boston area. "You had a Maytag washing machine, and the belt was a weak spot," he says. Today Sheinkopf is CEO of Yale, which reports about \$120 million in sales per year. "You would replace the belt—it's a \$100 repair—and there you go." Now, he says, such a major fix for a front-load washer could set you back \$500 to \$600.

Appliance repair costs vary widely, and techs can't always solve the problem on the first look. In fact, a 2016 survey by Consumer Reports found that approximately 40 percent of appliance repairs weren't completed on the first appointment, leaving some people without an appliance that much longer. Another concern is the wait time for replacement parts. Most service providers can't stock every part for every appliance from every brand, so after a diagnostic appointment, you might wait weeks for a part to be delivered before the second appointment to have it installed.

Manufacturers pay authorized service providers such as Yale a set rate to make repairs during the warranty period, but Sheinkopf says he loses money on in-warranty service calls. In his view, manufacturers should be performing these repairs themselves. By farming out service, they leave customers hanging after the sale.

"[They] wonder why there is no real loyalty to anybody," Sheinkopf says. "It's because they get this piece wrong."

Of course, when an appliance suffers a failure that cannot be repaired, it eventually finds its way into the waste stream. So while you absorb the cost of a replacement, landfills and recycling plants must absorb yet another substantial hunk of plastic, metal, and circuitry.

It's not hard to see how longer-lasting products could reduce environmental impact. And if people start choosing brands with better reliability, it may move manufacturers to prioritize reliability as much as their customers do.

# Appliance Reliability

## HOW BRANDS STACK UP

There are various ways to assess an appliance manufacturer's reputation for reliability—personal experience, word of mouth, marketing. But nothing beats real-world data.

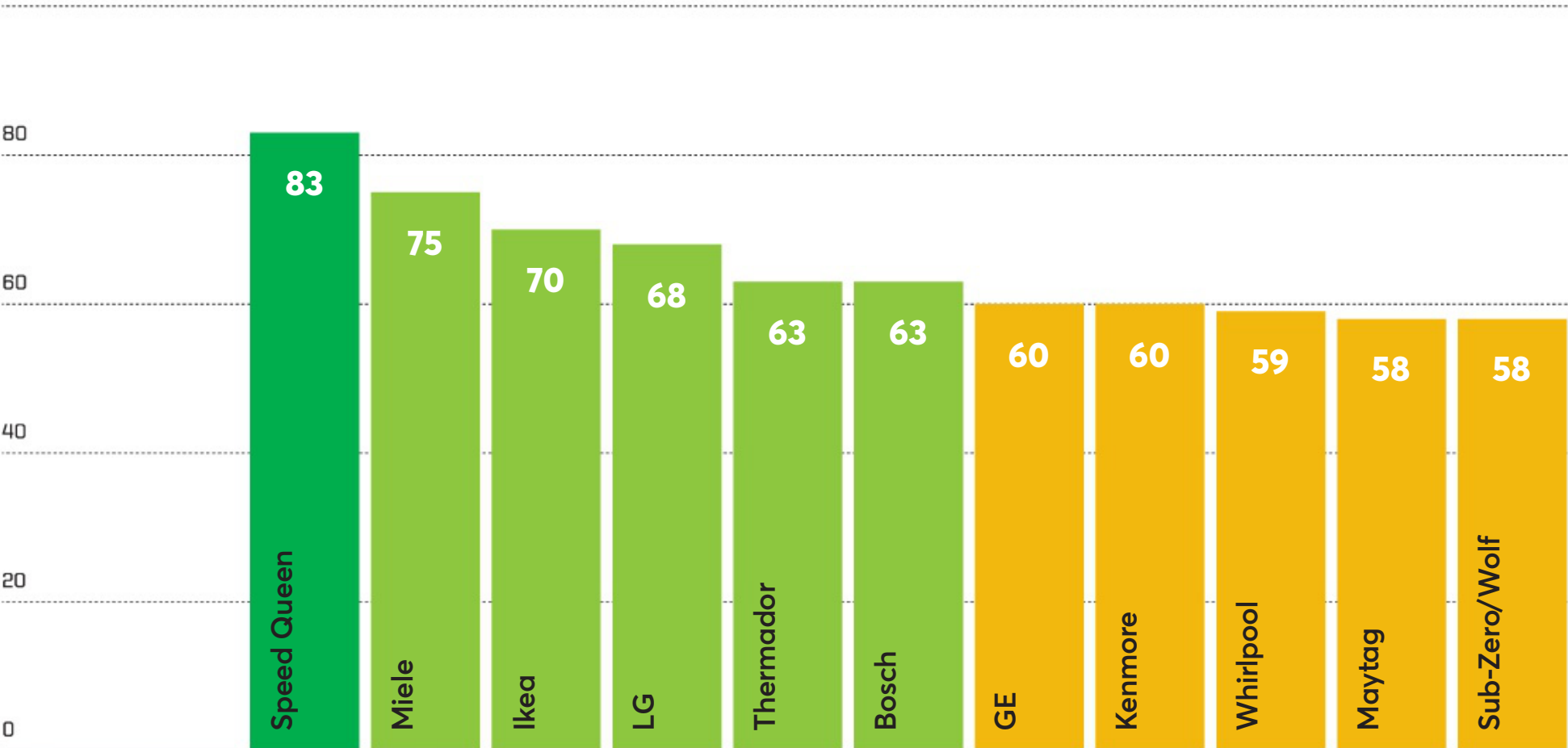
That's why Consumer Reports is introducing our Appliance Brand Reliability Rankings. In the chart below, you can see at a glance how reliable one brand is relative to another across multiple appliances. The results are based on data CR

collected from our members on more than 381,000 kitchen and laundry appliances purchased between 2008 and 2018.

To calculate predicted reliability, we ask members how many times the products they own broke or stopped working as well as they should. We use that data to estimate how new models from a given brand will hold up over the first five years.

Here we include only brands for which we have sufficient

AVERAGE PREDICTED RELIABILITY SCORE



PREDICTED RELIABILITY, BY APPLIANCE											
	Speed Queen	Miele	Ikea	LG	Thermador	Bosch	GE	Kenmore	Whirlpool	Maytag	Sub-Zero/Wolf
REFRIGERATOR				↑	↑↑	↓	↓	↑	↓	↓	↑
DISHWASHER		↑↑	↑	↓	↑↑	↑↑	↑	↓	↑↑	↓	
RANGE				↑	↓	↑	↑	↑	↑	↓	↓
COOKTOP		↓		↓	↓	↑	↓	↓	↓	↓	↓
WALL OVEN*				↑↑	↓	↓	↑↑	↓	↓	↑	
OTR MICROWAVE			↑	↓		↓	↓	↑	↑	↓	
WASHER	↑	↑↑		↑↑		↓	↓	↑	↓	↑	
DRYER	↑↑	↑		↑		↓	↓	↓	↓	↓	

\*Electric only.

data in at least two categories of major appliances.

The predicted reliability ratings for appliances from each brand are an average of the ratings for all types of that brand's appliances (for example, front-loaders, top-loaders, etc., for washing machines). LG gets an Excellent rating for washing machines because each type of washer it makes rates Excellent for predicted reliability.

For each brand, the Average

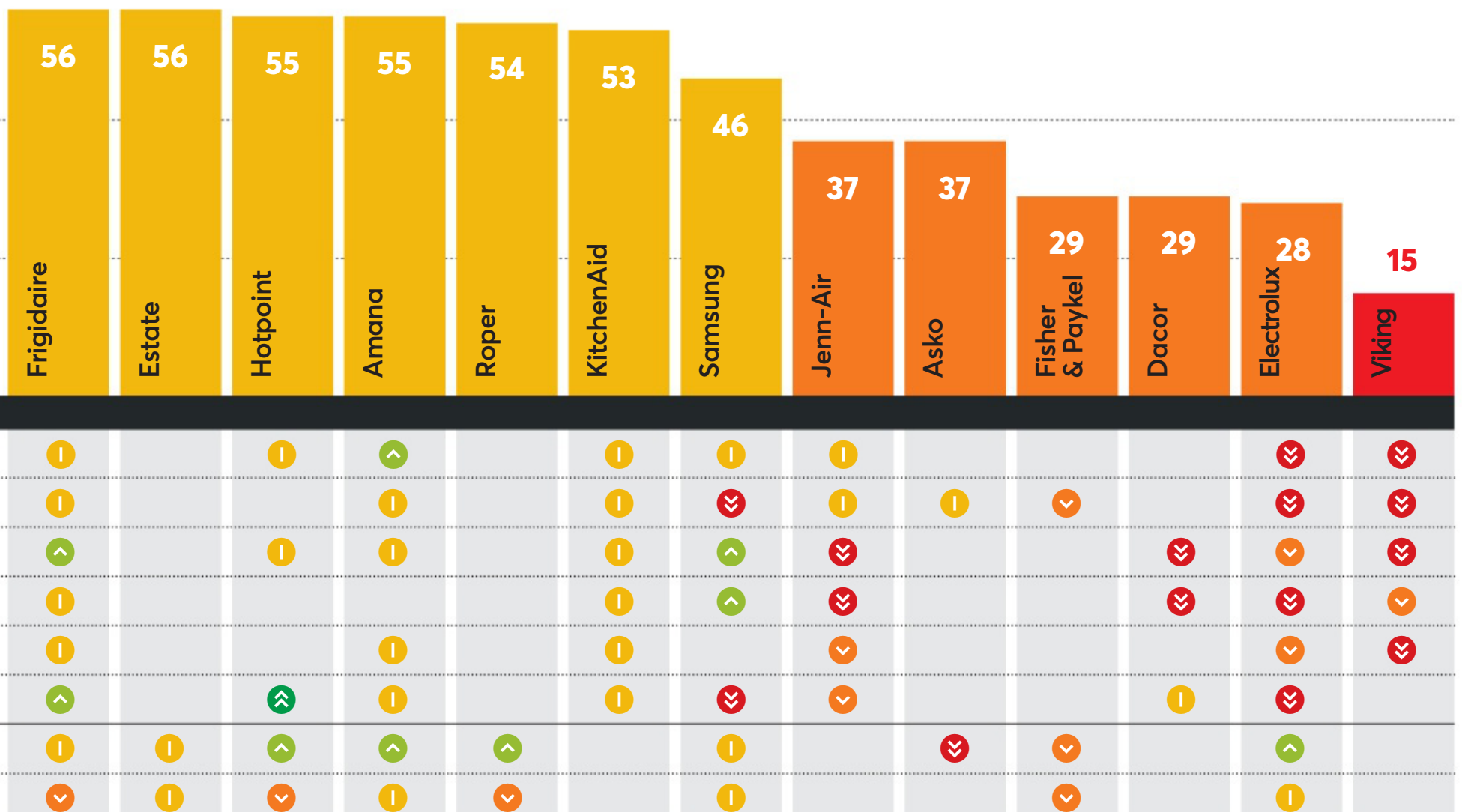
Predicted Reliability Score has been adjusted to account for differences among types of appliances. A brand that earns relatively high marks for its French-door refrigerators, for example, will get a bump in its score because French-door models are less reliable than other refrigerator types. Without this statistical adjustment, a brand that makes only top-freezer refrigerators—the most reliable type—would have an

unfair advantage over brands that make multiple types.

Certain manufacturers are remarkably consistent in terms of reliability. If you're looking to outfit your kitchen or laundry room with appliances from the same brand, you'd do well to consider Miele, LG, Thermador, and Bosch. And you'll want to be careful when considering Samsung, Jenn-Air, Dacor, Electrolux, and Viking because each has multiple appliance

categories that earn a Poor reliability rating.

Keep in mind that our predicted reliability ratings are not an indicator of performance. Speed Queen, for instance, tops our list with high reliability ratings for washers and dryers, but its machines don't always perform well in our lab tests. So even when you settle on a reliable brand, you'll want to check our full ratings to pick a specific model.



# What's Wrong With This Thing?

Every year the Survey Research team at Consumer Reports gets tens of thousands of responses from our members about problems they've had with their kitchen and laundry appliances. Here are 2018's most commonly reported problem areas—let's call them complaints—from finicky fridges to wishy-washy washing machines. Our reporters also reached out to appliance repair pros to find out which parts most often fail; see "What Breaks" in each section below. In the process, we picked up a few tips on simple repairs you can do yourself to save some money on service calls.



## Refrigerators

### BIGGEST COMPLAINTS

- 17% No water (or ice) coming out of dispenser
- 13% Icemaker won't make ice
- 7% Buildup of ice in the fridge
- 6% Water leaking
- 5% Refrigerator not cooling
- 5% Broken or faulty control panel or circuit board
- 4% Not keeping food cold
- 3% Blocked drain or outlet
- 3% Broken or faulty compressor

### WHAT BREAKS

**Icemaker:** This appliance-within-an-appliance draws water into uniform ice molds. Once cubes form, the molds are heated or twisted to free the ice from the molds, and a sweep arm ejects them into a container to be dispensed on demand. **Evaporator fan motor:**

Moves air over evaporator coils, allowing refrigerant to absorb heat. **Thermostat:** Regulates temperature in fresh-food and freezer compartments.

### A PRO'S PERSPECTIVE

"Icemaker failures have always been a problem, but now almost all refrigerators are sold with one," says Dean Landers, president of Landers Appliance, a repair service in the Baltimore area. That means shops see more icemaker repairs—or requests for them. "We used to be able to repair icemakers," Landers says. "Now everything is molded, flimsy, and cast, making it necessary to replace the entire unit."



## Ranges

### BIGGEST COMPLAINTS

- 6% Oven not heating up effectively



## A BAD BREAK REFRIGERATORS

"Compressors are the heart of a refrigeration system," says Dean Landers. Replacing one means removing the refrigerant following strict federal guidelines, using a blow torch to extract the failed unit, soldering in the new one, and recharging the system. "It is extremely costly to perform this repair," Landers says.

- 6% Burners (gas) or cooktop elements (electric) not igniting or heating up
- 5% Ignition breaking or not working properly (gas models)
- 2% Broken knobs
- 2% Broken control panel button(s)

### WHAT BREAKS

**Ignition system:** In gas ranges, this series of components generates a spark to light the gas. **Oven bake element:** Produces heat for bake, roast, and broil functions in an electric oven. **Oven temperature sensor:** Regulates temperature for both gas and electric ovens. **Burner:** Controls the evenness and shape of the flame on a gas range.

### A PRO'S PERSPECTIVE

"There's a lot consumers can do themselves to fix minor problems with their ranges," says Paul Berry, owner of Mr. Appliance of San Antonio. And it starts with cleaning. Take the ignition system: If you can still hear it clicking when you turn the knob, it may just be blocked by residue from a boil-over or other debris. Burners can also get clogged with food—you'll notice a weak flame. For both parts, Berry says, "Scrub out any debris using dish soap and warm water."



## Dishwashers

### BIGGEST COMPLAINTS

- 11% Not cleaning properly
- 9% Not drying properly
- 7% Not draining properly
- 7% Control panel breaking or not working properly
- 6% Water leaking
- 5% Dish rack(s) breaking

### WHAT BREAKS

**Inlet valve:** Controls the flow of water into the dishwasher. **Wash arm:** Sends rippling streams of water into dish racks for washing and rinsing cycles. **Drain pump:** Removes dirty wash and rinse

water from the dishwasher, pumping it into the drain.

**Circulation pump:** Forces water out of spray arms and onto your dirty dishes.

#### A PRO'S PERSPECTIVE

*You're not going to notice most dishwasher problems right away, according to Chris Zeisler, technical service supervisor at RepairClinic.com, an online clearinghouse for appliance parts and do-it-yourself videos. "[Your dishwasher] will slowly not wash well until it gets to the point where you're fed up and wondering what's going on."*



## Over-the-Range (OTR) Microwaves

#### BIGGEST COMPLAINTS

- 5% Buttons on control panel breaking or not working properly
- 4% Excessive noise
- 4% Failing to heat food adequately
- 4% Door not locking or closing properly
- 2% Turntable not turning
- 2% Exhaust fan not venting properly

#### WHAT BREAKS

**Door latches:** Redundant latches make it impossible for the microwave to run when the door is open or ajar. **Turntable tray:** Rotates food for even heating.

**Exhaust fan:** Draws cooking fumes through the filters. **Control panel:** Operates heating functions. **Magnetron:** Creates the microwaves.

**Grease filter:** Though it doesn't technically break, this part gets gunked with grease, preventing it from drawing cooking fumes out of your kitchen.

#### A PRO'S PERSPECTIVE

*"Anything wrong with the microwave door is potentially a safety concern because it can release potentially harmful microwaves," Zeisler says.*



## A BAD BREAK DISHWASHERS

The impeller is the part of the pump that generates the water pressure necessary to make the spray arms spin. It can get damaged if a seed, pit, or piece of glass gets into the pump. "You would want to address that as soon as possible," says Chris Zeisler at RepairClinic.com. That's because it can lead to water leaking into the motor and out onto your floor. How will you know your impeller is damaged? You'll hear a loud growling.



## A BAD BREAK WASHERS

"The electronic control board—the brain of the machine—and the motor are the most expensive parts to replace," says Enrique Espinoza Jr., service manager at Nebraska Home Appliance, a repair service in Omaha. The control board communicates with sensors that set water volume and temperature, wash time, and drum speed. "It's in control of everything," Espinoza says. Replacing one isn't cheap, so you'll need to factor in how much you paid for the machine, how old it is, and how much a new model would cost.



## Washers

#### BIGGEST COMPLAINTS

- 14% Appearance of mold (front-loaders)
- 6% Drum not spinning properly or at all
- 5% Machine failing to drain
- 4% Dials, buttons, control panel breaking or not working
- 3% Water leaking

#### WHAT BREAKS

**Door or lid switch:** Keeps the drum from spinning until the door or lid is closed. **Drain pump:** Removes water from the drum. **Tub bearings:** They hold the tub and allow it to spin smoothly.

#### A PRO'S PERSPECTIVE

*"Fix any squealing or knocking sounds as soon as possible," says Wayne Archer, a technical expert at Sears Home Services, which conducts more than 7 million appliance repairs per year. "Continued use will only cause more damage and a higher repair bill."*



## Dryers

#### BIGGEST COMPLAINTS

- 10% Clothes not drying
- 7% Faulty drum rollers, belt, and/or motor

#### WHAT BREAKS

**Thermal fuse:** Keeps the appliance from overheating. **Heating element:** A wire coil in an electric dryer or a burner in a gas dryer. **Drum seal:** A continuous piece of felt around the rim of the drum that allows it to spin while controlling airflow.

#### A PRO'S PERSPECTIVE

*"There are very few dryer problems that can't be fixed—it's rare to have to completely replace the unit," says Archer at Sears Home Services.*



# How Long Will Your Appliances Last?

Once you've gone through the hassle of shopping for and installing a new refrigerator, you may find yourself wondering how long will it be before your next fridge fiasco.

If you're like the average CR member we've surveyed, you would assume any new major appliance will last about 10 years. "Consumer expectations across major appliances are remarkably consistent," says Simon Slater, associate director of survey research at CR.

Manufacturers tend to agree. We asked makers of more than 20 brands, and most say their appliances should last about 10 years. (A handful won't say.)

Certain brands make far bolder claims about longevity. Miele, which positions itself as a luxury brand, and Sub-Zero/Wolf, maker of aspirational chef's kitchen centerpieces, claim 20 years; Speed Queen, which makes laundry machines it touts as commercial-grade, 25 years.

But just because a manufacturer says its product should last 10, 20, or 25 years doesn't mean those years will be trouble-free. Data from tens of thousands of CR members in our 2018 major appliance surveys suggest that plenty of problems will crop up within the first five years for any appliance, as you can see in the statistics we've highlighted here.

## DO YOU NEED AN EXTENDED WARRANTY?

Whether to buy an extended warranty to cover an appliance beyond the standard one- to two-year manufacturer warranty comes down to your tolerance for risk. You have to weigh how likely the appliance is to break during the extended warranty and whether the warranty would cost more than the repair itself. We predict that around 25 percent of all refrigerators, for example, are likely to develop problems in years two to five, after the typical one-year warranty expires. But our data show that the median cost of a repair is \$162—the same as the median cost of an extended warranty. So if something goes wrong, it's a wash, and if it doesn't, it's a waste.

But if you look at the potential to get hit with a whopper of a refrigerator repair bill, you're even less likely to get your money's worth from an extended warranty. Less than 1 percent of our members who bought a refrigerator between 2008 and 2018 had a repair bill of \$500 or more.

## APPROXIMATE PROBLEM RATES WITHIN THE FIRST 5 YEARS

### All Refrigerators 40%

#### BEST BETS

**Top-freezer models from** Amana, Frigidaire, Kenmore, LG, Maytag, Westinghouse, Whirlpool  
25%

#### WORST BETS

**French-door models from** Electrolux, Frigidaire  
60%

#### COSTLIEST TYPE TO FIX

**Built-Ins**  
\$270\*

### All Washers 30%

#### BEST BETS

**Top-load agitator models from** Speed Queen  
10%

#### WORST BETS

**Compact models from** Asko, Whirlpool  
50%

#### COSTLIEST TYPE TO FIX

**HE Top-Loader**  
\$153\*

### All Ranges 25%

#### BEST BETS

**Electric models from** Bosch, GE, Whirlpool  
15%

#### WORST BETS

**Pro-style models from** BlueStar, Dacor, Jenn-Air, Viking  
40%

#### COSTLIEST TYPE TO FIX

**Pro-Style**  
\$246\*

\*Median repair cost.

# How to Care for All Your Major Appliances

**Appliances can be expensive.** And once they're installed and up and running, it's easy to forget that, like any complex machine, appliances require some regular TLC. That's why we've put together a list of 26 maintenance tips that will keep the unsung workhorses of your kitchen and laundry room happy and humming along for years to come.



## Refrigerators

**Vacuum the condenser coils.** Condenser coils collect dust, dirt, hair, grime, and other debris that can restrict their ability to dissipate heat, limiting efficiency and potentially causing a breakdown. Every six months, gently vacuum the coils using a soft brush attachment to keep them working at their best. They're on the underside or rear of the refrigerator (on top for built-ins), so you'll have to pop off the grille or pull the fridge out from the cabinets to get to them.

**Keep the door gaskets clean.** The gaskets around refrigerator doors keep cold air from escaping, but spills and food bits can build up and prevent them from forming a good seal. "That forces the compressor to work harder than it should," says Joseph Pacella, who

runs CR's refrigerator test lab. Clean the gaskets with a damp sponge or cloth, and be sure to dry off excess water, which won't have a chance to evaporate in the folds of the gaskets with the door closed. If you notice any mold, you'll need something to kill it, such as a disinfecting cleanser; check your fridge manual first to see whether certain products should be avoided.

**Change the water filter.** If your fridge has a water filter, replace it every six months. Be wary of aftermarket filters because it's tricky to verify whether they remove contaminants and bacteria from your drinking water. On the other hand, if you're confident that your water supply is safe and you don't want to spend an extra \$100 or so per year on filters, you can probably just go without one. With certain refrigerators you'll need to insert a cartridge plug to keep water flowing. (It should have come with the fridge.)



## Ranges

**Clean up cooktop spills.** Get after spills as soon as you're finished cooking and the cooktop has cooled. "Burned-on spills become harder to remove, and sugary spills can damage a glass smoothtop surface," says Tara Casaregola, who runs CR's range test lab. On a gas range, spills can clog ignition parts, preventing burners from lighting properly. Remove the electric coils or, on gas ranges, the grates and burner caps. Then wipe away the bulk of the spill with paper towels, and sponge off the rest with warm, soapy water. You can wash removable parts of gas burners in the sink with soapy water, then rinse and dry them. Electric coils should be cleaned with a damp cloth—Casaregola says not to rinse them in water. For smoothtops, use a liquid cooktop cleaner and paper towels or a ceramic cooktop cleaning pad, then buff out the residue with a clean towel.

**Keep your smoothtop smooth.** Remember that your cooktop is made of glass, so to avoid scratching or cracking it, don't fling cookware around like you're the Swedish Chef. Use flat-bottomed pots and pans only, and lift and place them rather than sliding or plunking them down.

**Use the oven's self-clean cycle.** Remove everything from your oven, including the racks, which can warp in the extreme heat—up to 850° F—generated during the cycle. Turn on the range hood, crack open kitchen windows, and allow the cycle to run completely, about 2 to 6 hours. Once the oven cools, wipe away any residue with a sponge and warm water. Self-cleaning regularly may curb the temptation to line the oven with foil to catch spill-overs. "Foil is a big no-no," Casaregola says. "It can melt in place, and you'll never get it off."

### HOW TO CLEAN A RANGE'S CONTROL PANEL

Carefully. Dampen a lint-free rag with warm, soapy water and wipe it down. Don't spray the panel directly, or soak it, because if water slips past the seal, it can fry the electronics inside the panel. Same goes for your microwave.

## SITTING PRETTY

Front-load washers are no more or less reliable than top-loaders, and both are more reliable than compact machines.



want to be gentle and make sure not to deform the hole," says Larry Ciufo, who runs CR's dishwasher test lab. "It can affect the spray pattern and how well the dishwasher does its job."



## Over-the-Range (OTR) Microwaves

### Be quick with the cleanup.

Sponge up spills as soon as they occur. Bits of food left behind can absorb some of the microwave's energy when you turn it on again, creating a hot spot that can damage the interior. Take special care not to scratch the protective mesh inside the door if it's exposed, because it prevents microwaves from escaping and zapping you.

**Turn on the exhaust fan.** An OTR's exhaust fan is not as efficient as a range hood's, but you should use it anyway. "Many times the user will not turn on the exhaust when cooking on the range cooktop, causing the moisture rising from pots and pans to collect on the electronics of the microwave and shorten its life span," says Wayne Archer, a technical expert at Sears Home Services. If moisture collects, wipe it off with a paper towel or soft cloth. While you're underneath the microwave, check the grease filters to make sure they're not gunked up and blocking airflow. If they are, soak them in a sinkful of hot water and a degreasing dish detergent, such as Dawn. Dry and reinstall.

**Don't slam the door!** Your microwave door has three, sometimes four, safety interlock switches that disable the oven when the door is open. For the microwave to work properly, the switches have to line up with their corresponding latches when the door is



## Dishwashers

**Degunk the door seal.** As needed, clean the seal between the dishwasher door and the tub, where residue and food particles collect. Buildup can cause odors, lead to mold growth, and potentially keep the door from sealing properly.

**Rustproof the racks.** If the plastic coating wears off, repair it as soon as possible with vinyl

paint or replacement tine tips. Otherwise the racks could corrode and allow small shards of rusty metal to enter the pump, according to Chris Zeisler, technical service supervisor at RepairClinic.com.

**Remove hard-water residue.** If you live in an area with hard water, the inside of your dishwasher is likely to develop mineral films and discoloration. These deposits look like a cloudy film on your dishes and the interior of your machine, and you may notice the rack rails and wheels moving with resistance, according to

Adam Hofmann, director of dishwasher engineering at GE Appliances. Manufacturers recommend using a citric-acid-based dishwasher cleaner, such as Affresh or Finish, to remove the deposits monthly. Follow package directions for removing hard-water film from your dishwasher.

**Inspect the spray arms.** Every few months, check the holes in the wash arms—spray nozzles—to make sure they're clean and unobstructed. If you see food debris clogging a spray nozzle, gingerly try to remove it with a toothpick or pipe cleaner. "You

## HOW TO CLEAN A DISHWASHER FILTER

All those food scraps have to go somewhere, and unless your dishwasher has an old-school food grinder, you'll have to clean the filter manually. Adam Hofmann at GE says to do it every month or so, more often if necessary. "If there is a decrease in wash performance or dishes feel gritty, then this is also an indication that filters need to be cleaned," he says. Remove the bottom rack and you should find a plastic cylinder that you can unscrew to lift out. (If it's not there, consult your manual.) Rinse the filter under running water until it's free of debris. It's fine to use soft sponges and warm soapy water for stubborn food bits, but abrasive brushes or steel wool can damage the filter. And if you find any holes, replace the filter immediately. That's because if hard objects, such as seeds or bits of bone, make it past the filter and into the pump, they can damage the pump impeller and motor seals—costly parts to repair.

closed. "All the door strikes, latch mechanisms, and door switches themselves are plastic, so slamming the microwave door can physically break any of these components," Zeisler says. "The series of switches all have to work in unison." Damage to any of the switches or latches could render the microwave inoperable.

**Do not attempt to repair the electronics yourself.** Not that you necessarily would, but in case you're tempted, consider that the Consumer Product Safety Commission has

reported that people have been electrocuted trying to repair their microwaves. A microwave can hold an electrical charge at thousands of volts in its capacitors for hours or even days after it has been unplugged, according to RepairClinic.com. "The capacitor is a component that stores energy and releases it when needed," Zeisler says. "This energy can be released when touched by a person." RepairClinic.com advises leaving such repairs to a pro. But get an estimate first—it's an expensive repair, and it may cost less to replace the machine.



## Washing Machines

**Keep it level.** The drums on modern washers can spin up to 1,600 rpm. To keep the machine from vibrating excessively and damaging itself, the washer needs to sit dead level, with its feet firmly on the floor. "If your washer is unsteady, extend one foot at a time," says Richard Handel, who runs CR's laundry appliances test lab. "Once the washer feels stable, use a level to check it front to back and side to side, adjust as necessary, then tighten the lock nuts on the feet."

**Don't overdo it on detergent.** A surplus of suds makes the washer work harder and could trigger extra rinse cycles, extending wash time and wasting energy and life span. Use the correct type of detergent in the amount recommended by your washer's manual. Newer washers use a lot less water than those made 15 years ago, and high-efficiency (HE) detergents, which produce less suds, are formulated to work with water-saving front-loaders, HE top-loaders, and even certain agitator top-loaders.

**Clean the dispenser drawer.** Remove it and clean it on a routine basis. When detergent builds up in the dispenser, it can cause suds galore, making the washer work harder.

**Inspect the water-fill hoses.** Replace when cracked or brittle. If a hose bursts, the flood can damage your appliances and your floor, for starters.



## Dryers

**Clean the lint trap.** It may seem obvious, but this is something to do before every load to ensure that the air flows freely. A blocked lint trap requires the dryer to run longer, adding to wear and tear on the machine.

**Keep the duct clear.** If lint builds up to the point where it restricts airflow, your clothes won't dry and conditions are ripe for a dryer fire. Disconnect the duct from the dryer, then vacuum the dryer vent with a long-handled attachment. Next, use a special brush made for cleaning dryer ducts: Feed it into the duct, vacuuming up chunks of lint as you move it back and forth. "Where possible, separate the duct into shorter sections for better access," Handel says. "If you don't feel comfortable doing it yourself, you can call a dryer vent cleaning service."

—Reporting by Mary H.J. Farrell, Paul Hope, Kimberly Janeway, Haniya Rae, Perry Santanachote, and Daniel Wroclawski

### HOW TO GUARD AGAINST MOLD IN A WASHER

Mold thrives when it has food and water, and washers provide plenty of both, with detergent residue serving as one food source. Try these tips:

**Air out the interior of your washer.** Between loads, keep a front-loader's door

ajar—as long as young children aren't afoot—or a top-loader's lid open. Open the dispensers partially to give them an opportunity to dry.

**Prevent residue buildup** by using the proper amount and type of detergent.

**Run the tub-clean feature regularly**—the recommended frequency varies by machine, from once a month to every 50 cycles. If your washer doesn't have it, run an empty load on the hottest setting with a cup of bleach instead of detergent.

**Get in the habit of wiping away moisture** inside the front-loader's door and on the rubber gasket. While you're at it, gently pull back the gasket to clean away any residue and dry the surface.

# SECRETS TO CREDIT SCORE SUCCESS

A low or inaccurate credit score can have costly consequences. Here's how to keep track of your score and get it as high as possible—and keep it that way.

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**If you think** your credit history determines only the interest rate you get on home mortgages, car loans, and credit cards, you'd be wrong, but you certainly wouldn't be alone. In a recent U.S. News & World Report survey, less than half of the 1,497 respondents knew that in many states poor credit could lead to higher home and auto insurance rates or being denied an apartment (*CR opposes the use of credit reports for these purposes*). The consequences go even further: Employers in many areas can use credit reports to vet job candidates, and having a low credit score could mean paying \$4,000 more for a typical car loan or \$200,000 more for credit over the course of a lifetime than someone with a high credit score.

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### THREE DIGITS THAT DEFINE YOUR FINANCIAL LIFE

Lenders and landlords can use your FICO score (see the range breakdown at right) and other credit-based scores to determine your interest rates and whether or not to rent to you. The higher interest rates offered to consumers with low FICO scores mean they **could pay almost \$100,000 more for a 30-year fixed-rate home loan\*** than consumers who have a higher score and qualify for lower interest rates.

\*Based on a 5.08% APR and a 3.49% APR for FICO scores of 620 and 760, respectively, on a \$280,000 loan.



There are several types of credit scores, but the FICO score is one of the most widely used by lenders, which makes it a good barometer of your overall creditworthiness. According to the Fair Isaac Corporation, which creates more than a dozen versions of the score for various types of lenders, all of them are based on assorted forms of credit data (such as payment history and amounts owed) provided by the three major credit bureaus—Experian, TransUnion, and Equifax. Each form of credit data is given a different weight (see “The Five Keys to Your Credit Score,” on the facing page).

Finding your credit score can be a frustrating process if you don’t know where to look. The Fair Isaac Corporation and credit reporting agencies will provide your FICO score for a fee, but there are several ways to find it at no charge. For instance, if your bank, credit card issuer, or lender participates in FICO Score Open Access, you may be able to get it free just by logging in to your account.

Discover, which is among the cards that provide FICO scores to its cardholders, will also provide the scores at no cost to non-customers who share information (including their Social Security number), which the company says it will

protect from misuse.

Though it does not provide the actual score, FICO’s free Credit Scores Estimator provides a range within which a consumer’s score is likely to fall based on answers to 10 questions. The estimator can be found at [myfico.com/free-credit-score-range-estimator](http://myfico.com/free-credit-score-range-estimator).

### Making Sense of Your Score

FICO scores typically range from a low of 300 to a high of 850. (The national average FICO score is 704.) In general, a score above 800 will qualify you for the lowest interest rates, though even a score in the high 600s should qualify you for a favorable rate.

Experian, one of three major credit bureaus, defines the boundaries this way:

#### **800-plus: Exceptional.**

Less than 1 percent of borrowers in this range are likely to become seriously delinquent. They’ll easily be approved for the lowest rates.

#### **740-799: Very good.**

One percent of borrowers in this category are likely to become seriously delinquent. They could be offered the lowest rates from lenders, but it’s not a given.

**670-739: Good.** Eight percent could become seriously delinquent. This stratum includes the average U.S. credit score. People in this range are

# 10

## WAYS TO RAISE YOUR CREDIT SCORE

Taking these actions can help to raise a sagging score. Just don’t expect it to happen overnight: Depending on the reasons for a poor score, it could take from 12 to 24 months to see a difference.

### 1 Regularly monitor your credit reports.

Mistakes on your credit reports can be costly—and common. A study by the Federal Trade Commission found that 1 in 5 consumers had an error on his or her credit report that was corrected after it was disputed. Consumers are entitled to receive three free credit reports each year—one from each of the three major credit reporting agencies: Equifax, Experian, and TransUnion. A smart way to monitor your credit is to go to [annualcreditreport.com](http://annualcreditreport.com) and request

a free report from a different agency every four months. Common errors to look for include: credit accounts that aren’t reflected, duplicate credit accounts, debts incurred by a former spouse, and bad debts older than seven years. You can initiate a dispute online at each of the three major credit reporting agencies.

### 2 Pay your bills on time.

Approximately 35 percent of the FICO score is determined by your payment history, and

96 percent of those with the highest FICO scores have no missed payments. It’s better to pay the minimum on credit cards each month than to fall behind.

### 3 Don’t apply for several credit cards at once.

This generates numerous inquiries into your credit history, which may lower your score. Another reason: Opening several new credit accounts at the same time reduces the average “age” of your accounts, which can also lower your credit score. However, multiple requests

considered an “acceptable” lending risk.

**580-669: Fair.** An estimated 27 percent of the people in this group could become seriously delinquent, making them likely candidates for subprime loans at higher rates.

**579 and below: Poor.** This group is considered a poor lending risk: Roughly 62 percent could become seriously delinquent. They will be eligible only for the highest interest rates, if they can get credit at all.

Though missing just one payment can ding your score, even a major downturn in your luck or behavior is unlikely to drop it into the very lowest range.

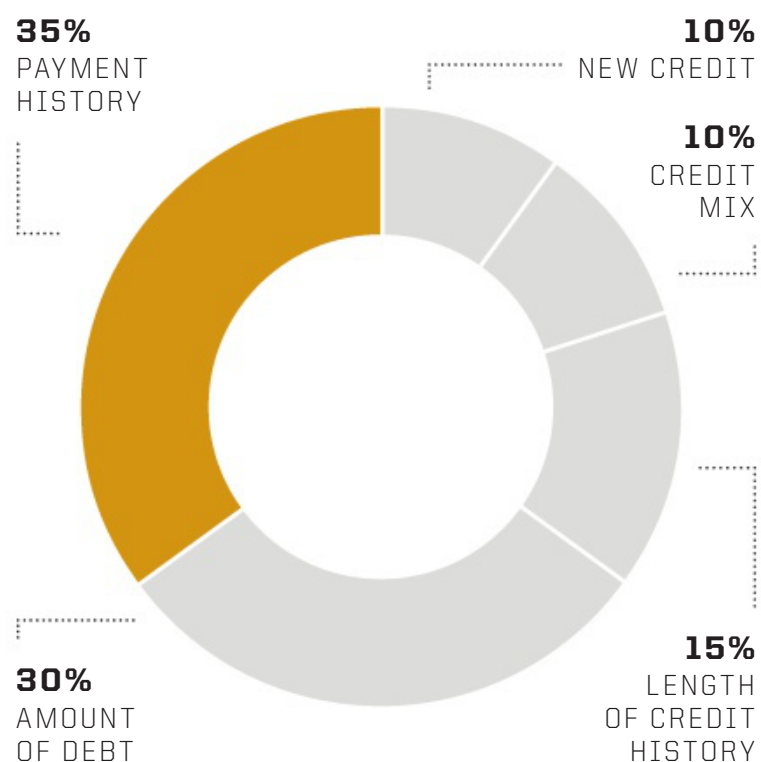
Bruce W. McClary,

vice president of communications at the National Foundation for Credit Counseling, a group that represents nonprofit credit counseling agencies, says the lowest score he’s ever seen was 425, for a consumer who had already been in bankruptcy and was delinquent with several creditors.

“Obsessing over perfecting your score might be a waste of time,” says Katie Ross, education and development manager for American Consumer Credit Counseling, a nonprofit that offers guidance to consumers. Instead, “focus your efforts on keeping it within a healthy range,” she says.

## THE FIVE KEYS TO YOUR CREDIT SCORE

FICO scores are based on the following factors, supplied by credit reporting agencies:



within a 45-day period for a single type of credit (mortgage, auto loan, or student loan, for instance) are counted as a single inquiry to allow consumers to shop around for the best rate. These are less likely to lower your score.

**4 Don't cancel unused cards (unless they carry an annual fee).** Roughly a third of your score is based on the ratio of credit used to total available credit. Eliminating a card will lower your available credit and can work against you.

**5 Keep credit balances low.** Because a high credit ratio can negatively affect your score, maintaining a low revolving credit balance is wise. (Most people with the highest FICO scores owe less than \$3,000 on revolving accounts.)

**6 If you charge everything on a rewards card for the points, switch to cash or a debit card for a couple of months before applying for new credit.** Even if you pay your balances in full every month, a lot of debt relative to your credit limit can

still be viewed negatively.

**7 Maintain a variety of credit types.** Successfully paying, say, an auto loan, a student loan, and credit card bills over the same period shows that you're able to juggle different types of credit. That diversification accounts for 10 percent of your score.

**8 Pay off debt in collection.** With the most current version of the FICO score, debt that was referred to a collection agency but

has been paid off will no longer count against you. (Always dispute any debt that has been wrongly assigned to you.)

**9 Get a secured credit card after bankruptcy.** If you've been through bankruptcy, using a secured credit card backed by a refundable deposit may be an effective way to start rebuilding your credit. A bankruptcy will have less impact on your score over time if you don't default on new loans. It may be a while before you can access credit inexpensively again:

Chapter 7 and Chapter 13 bankruptcies stay on your credit report for up to 10 years.

**10 Consider new tools that can boost your credit score.** Consumers with little credit history or less-than-stellar scores may now use two new tools that could boost creditworthiness by taking into account additional information, such as utility or mortgage payments and bank balances. For the pros and cons of these, see “If You Need Extra Help Improving Your Score,” on page 40.



## MYTH VS. FACT:

# WHAT REALLY DAMAGES YOUR CREDIT

Experts at the credit reporting agencies explain what does and does not get factored into your credit score.

### Unpaid Bills or Late Payments

#### FACT

"Just one late payment can hurt your score and will remain seven years from the date of the missed payment," says Rod Griffin, director of consumer education and awareness at credit reporting agency Experian.

### Unpaid Parking or Traffic Tickets

#### MYTH

Tickets come from municipal records and are no longer collected by any of the credit reporting agencies, Griffin says.

### Current or Unpaid Library Fines

#### MYTH

Though library fines, like traffic ticket data, were once collected by credit reporting agencies, they no longer are, Griffin says.

### A Soon-to-Be Ex's Credit Card Debt

#### FACT

You may think you're off the hook if a judge rules that your soon-to-be-ex spouse must pay all the debt on your joint credit card, but the card company sees it differently. As long as you are still married, "you are both jointly and severally liable for 100 percent of the card debt," says Eric Ellman, senior vice president for public policy and legal affairs at the Consumer Data Industry Association,



which represents credit reporting agencies.

### Liens or Judgments Against You

#### MOSTLY MYTH

These infractions rarely make it onto credit reports, Ellman says. "Liens and other judgments don't show up on credit reports very often," he says, explaining that the only way for those public records to appear on your credit report is for certain personal information from those sources to match what the credit reporting agency has on file. "We've found that public records will almost never have a Social Security number or date of birth," Ellman says. "So as a general rule, most liens or judgments don't show up on credit reports." Griffin says unpaid and paid tax liens have been removed from all credit reports.

### Checking Your Credit Report

#### MYTH

You can look at your

credit reports as often as you like, but you're entitled to only one free copy per year from the three nationwide credit reporting bureaus. CR recommends that you review a free report every four months for accuracy.

### Inquiries From Non-Lenders

#### MYTH

A prospective employer may review your credit report but does not receive the actual credit score and cannot view the credit report without your consent. Insurers and landlords may also request credit reports before issuing a policy or renting to someone. These inquiries have no impact on your credit score.

### Opening Several Credit Cards

#### FACT

Opening several credit cards in a short period of time "could have a downward effect on your score because it suggests you're in credit trouble," Ellman says.

# If You Need Extra Help Improving Your Score ...



**MOST CONSUMERS WITH** the highest FICO scores have more than 25 years of demonstrated credit history, according to the Fair Isaac Corporation, which creates the score. But simply establishing credit can present consumers with a predicament: You can't get credit without proving creditworthiness, but it's difficult to prove creditworthiness without first having credit.

To help solve this chicken-and-egg challenge (and also to give consumers with lower credit scores a chance to raise them), Fair Isaac Corp. and the credit reporting company Experian each recently introduced services that give consumers the choice to have nontraditional financial data factored into their credit scores.

Consumer advocates say they see the value of helping people who have thin or poor credit histories qualify for credit. But they also voice concern that more lenient credit scoring and lending standards could allow consumers to take on more debt than they can afford, and caution that this could lead to a repeat of the subprime housing market meltdown of 2008, which forced millions

into foreclosure.

“While incorporating bank transaction data into credit scores could help raise those of some consumers, people should exercise caution before opting to use these services,” says Maureen Mahoney, a policy analyst for CR, adding that government regulators need to keep a close eye on how the services are implemented.

Mahoney says that the fact that these services give consumers a choice to include private financial data or not is an improvement over the wholesale data collection that happens without our consent, but she suggests consumers proceed with caution.

“Using these services involves sharing very sensitive banking information with third parties. Consumers should keep that in mind before participating,” Mahoney says.

Among the questions Mahoney says consumers should ask: How long will my information be collected and kept? How can I discontinue my participation? Will my information be used for anything other than credit scoring? Who will it be shared with?

Mahoney also says that lenders use many types of credit scores. “Even if you do see an improvement in your FICO score, that may not be the one that the lender considers when making its decision.”

Here’s a summary of the services and how they work:

### Experian Boost

Consumers who sign up for Experian Boost, which

launched earlier this year, give Experian read-only permission to see their bank account data to review utility (gas, water, electric), internet/cable, and telecom payments. None of these is typically included in traditional credit reports.

Consumers can determine how many qualifying utility, internet/cable, or telecom payments they wish to add to their Experian credit file, and they can turn off the service any time they wish.

Experian’s research shows that 64 percent of consumers who add this additional payment information to their credit reports will see their FICO scores improve, says Greg Wright, chief product officer at Experian Consumer Information Services.

The improvement is likely to be modest for most consumers, especially those who are already in good financial shape. Still, Experian predicts that 5 to 15 percent of borrowers will move into a better score category. That could be significant for those who climb from a subprime to a prime category and become eligible for lower interest rates on their loans and lower insurance premiums.

### UltraFICO

In addition to reviewing any credit history you may have, this service also looks at your bank account to analyze how well you manage your money and factors that into your score. UltraFICO takes into account, among other things, how long accounts have been open, frequency

of activity, maintaining a savings balance, and avoiding negative balances. (Those who bounce checks could risk lowering their credit score.) As with the data considered by Experian Boost, these factors are not generally included in a traditional credit file.

UltraFICO is designed to benefit younger consumers or immigrants, who may not be traditional banking customers, as well as those who have experienced previous financial distress and are working to restore their creditworthiness, says David Shellenberger, vice president of product management scores at FICO.

To get a positive rating from UltraFICO, consumers could, for instance,

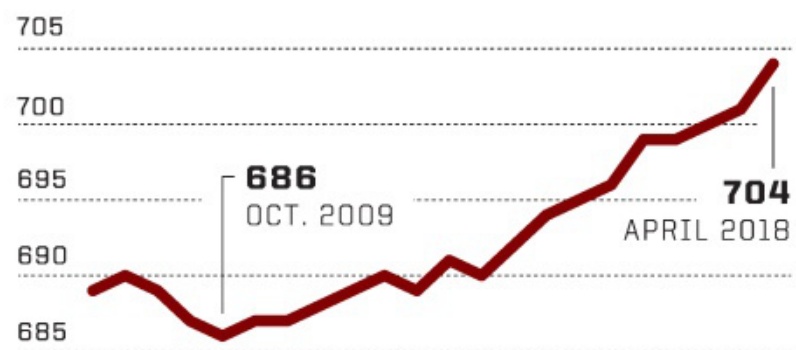
demonstrate a savings cushion of at least \$400 and positive balances during the previous three-month period. Although these aren’t hard and fast cutoffs, Shellenberger says the company estimates that about 70 percent of consumers who maintain these financial goals will benefit from higher credit scores.

Fair Isaac Corp. projects that 10 to 15 million consumers will participate in UltraFICO, which represents about 20 to 30 percent of the 53 million consumers previously considered unscorable due to lack of credit history.

At press time, UltraFICO was in a pilot phase; the company predicted it would be available to the general public by the end of summer 2019.

### CREDITWORTHINESS IS CLIMBING ...

NATIONAL AVERAGE FICO SCORE, OCT. 2007 TO APRIL 2018



### ... BUT YOUNGER CONSUMERS STILL LAG BEHIND

AVERAGE FICO SCORE BY AGE, APRIL 2018

18 TO 29 YEARS OLD	659
30 TO 39 YEARS OLD	677
40 TO 49 YEARS OLD	690
50 TO 59 YEARS OLD	713
60 YEARS OLD OR OLDER	747



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# Smart Speaker Superpowers

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Virtually unheard of as recently as five years ago, smart speakers could one day be as common as the microwave: As of early 2019, a third of U.S. homes with high-speed internet access had at least one such device, according to the market research firm Parks Associates.

But that's not to say that people who own a smart speaker are all getting their money's worth. Chances are that most consumers use only a fraction of the wizardry smart speakers can provide through voice assistants such as Alexa, Google Assistant, and Siri. If you don't brush up on new commands, your smart speaker can end up being a very expensive oven timer.

We're here to help. Whether you own an Amazon Echo, Google Home, Apple HomePod, or another brand of smart speaker, here's a list of surprising and useful things it can do. Just remember that using one can require a little patience—especially with tasks that involve its mobile app.



"RESUMING  
'WAR AND PEACE.'  
THERE'S 4  
MINUTES LEFT IN  
THIS CHAPTER AND  
50 HOURS LEFT  
IN THE BOOK."

"THIS IS A  
REMINDER. TAKE  
YOUR BLOOD  
PRESSURE PILL."

"I DON'T THINK IT  
GETS BETTER THAN  
BEYONCÉ. THEY DON'T  
CALL HER QUEEN B  
FOR NOTHING."

"CURRENTLY,  
YOUR FASTEST  
COMMUTE  
ROUTE TAKES  
17 MINUTES."

"OK. I ADDED  
BEER TO YOUR  
SHOPPING LIST."

## TIME MANAGEMENT

### Start Your Day Off Right

Why settle for an alarm, when you can wake up to a favorite song on your music streaming service? ON AMAZON: "Alexa, wake me up at 6 a.m. to 'Here Comes the Sun' by the Beatles." ON GOOGLE: "Okay, Google, set an alarm for 6 a.m. that plays the Beatles." Apple's HomePod doesn't offer this option.

### Ditch Your Grocery List

That smudged sheet of paper stuck to the fridge door is so 2016. ON AMAZON: Say, "Alexa, add sugar to the shopping list," and each item you mention is noted in the mobile app on your phone. ON APPLE AND GOOGLE: Use the same command—subbing "Hey, Siri" or "Okay, Google" for Alexa, of course.

### Get to Work on Time

It's hard to move up the ladder when you're stuck in traffic, but if your smart speaker knows your home and work address, it can alert you to jams before you leave the house. ON AMAZON: "Alexa, what's my commute look like?" ON APPLE: "Hey, Siri, what's the traffic like getting to work?"

ON GOOGLE: "Okay, Google, how long is my commute?"

### Plan Your Travel

A smart speaker can tell you about the attractions, local weather, and hotel accommodations at your destination. Amazon and Google also offer third-party apps from Kayak and Expedia (respectively) that give details on flight arrivals and departures and will even book rooms via voice commands. ON AMAZON: "Alexa, open Kayak." ON GOOGLE: "Okay, Google, talk to Expedia."

## HEALTH & WELLNESS

### Watch Your Diet

Want a snack? First, let a speaker advise you on calorie counts and other nutrition info. ON AMAZON: "Alexa, how many calories are in a banana?" ON APPLE: "Hey, Siri, how many calories are in an ounce of cheddar cheese?" ON GOOGLE: "Okay, Google, how many calories are in a Big Mac?"

### Remember Your Meds

Name the date, time, and task and a speaker will remind you to complete it. ON AMAZON: Start with a simple "Alexa, create a

new reminder," and the device will prompt you for details. But all three speakers can field more complex commands. ON APPLE: "Hey, Siri, remind me at 6 p.m. tomorrow to take my blood pressure medicine." ON GOOGLE: "Okay, Google, remind me to take my vitamins every day at 8 a.m."

### Find Your Bliss

In 10 minutes or less per day via Amazon or Google, you can do free guided meditations led by soft-spoken former Buddhist monk Andy Puddicombe, co-founder of the digital health company Headspace. ON AMAZON: "Alexa, open Headspace." ON GOOGLE: "Okay, Google, open Headspace."

### Hear Soothing Sounds

Amazon and Google offer a range of ambient sounds—from white noise to a crackling fireplace to a babbling brook. ON AMAZON: "Alexa, help me sleep." ON GOOGLE: "Okay, Google, help me relax."

## NEWS & ENTERTAINMENT

### Stay Informed

It's easy to request a briefing on the day's headlines from your favorite media outlets, including

Consumer Reports. ON AMAZON: Using the Alexa app on your smartphone, select your preferred sources—from ABC News to the Wall Street Journal—by going to Settings > Flash Briefing > Add Content. Then say, "Alexa, play my Flash Briefing," to get the update. ON APPLE: "Hey, Siri, play news from NPR." ON GOOGLE: "Okay, Google, what's the latest in business?"

### Check Your Nest Egg

Money talks—and so does your smart speaker. Think of it as the modern stock ticker. ON AMAZON: "Alexa, what's Disney's stock price?" ON APPLE: "Hey, Siri, how's the stock market doing today?" ON GOOGLE: "Okay, Google, what did IBM close at?"

### Get the Scores

In addition to delivering sports updates, a smart speaker can answer questions about team schedules, league standings, and stats. ON AMAZON: "Alexa, what's the score of the Cubs game?" ON APPLE: "Hey, Siri, what baseball games are on?" ON GOOGLE: "Okay, Google, who are the Warriors playing next?"

### Buy Movie Tickets

A smart speaker can provide info on the films and showtimes in

## CHOOSING

## SMART

How do you decide which smart speaker best fits your needs? Our testers have found little difference in how well each model "hears" and responds to voice commands. But that's only one small part of the purchasing decision. Consider these key points on digital ecosystems, listening standards, and price.

## ALEXA, SIRI, OR GOOGLE ASSISTANT?

The **Alexa** universe is flush with speaker options (including models by Bose and Sonos), third-party apps, and Amazon-related shopping and content.



55

OVERALL SCORE

AMAZON ECHO  
\$100

**Siri's** app and speaker options are more limited, but Apple's HomePod is designed to integrate easily with the 50-million-song Apple Music library.



59

OVERALL SCORE

APPLE HOMEPOD  
\$300

Speakers with **Google Assistant** tap the tech giant's formidable search capabilities and email, calendar, mapping, and music- and video-streaming services.



53

OVERALL SCORE

GOOGLE HOME  
\$80

local theaters. Amazon can also help you purchase tickets via an Atom Tickets app. ON AMAZON: "Alexa, launch Atom Tickets."

## HELP AROUND THE HOUSE

### Get a Kitchen Assistant

Remember the days when you had to flip through a cookbook to convert a cup of milk into ounces? Now you can just ask the smart speaker. ON AMAZON: "Alexa, how many ounces in a cup?" ON APPLE: "Hey, Siri, convert 2 cups to ounces." ON GOOGLE: "Okay, Google, how many pints are in a quart?"

### Decide Who's on Dish Duty

Any verdict that can be decided with a coin toss can be delivered by a smart speaker. Just say the wake words and then "flip a coin." The speaker will respond with "heads" or "tails." Have a big family? Try "roll the dice."

### Find Your Phone

Instead of searching high and low for your missing smartphone, ask the speaker to give it a ring. ON AMAZON: "Alexa, find my phone." ON APPLE: "Hey, Siri, where's my iPhone?" ON GOOGLE: "Okay, Google, ring my phone."

## Protect Your Privacy

If keeping a speaker with a microphone in your home makes you uneasy, you have reason to be. Amazon, Apple, and Google all collect recorded snippets of consumers' commands to improve their voice-computing technology. But they also offer ways to mute the mic when it's not in use. The Amazon Echo has an On/Off button on top of the device. The Google Home's mute button is on the back. And Apple's HomePod requires a voice command: "Hey, Siri, stop listening." (You then use a button to turn the device back on.) For a third-party speaker, consult the owner's manual for instructions.

### Find a Plumber

All three speakers supply the names and phone numbers of local service providers. Just say "Alexa" or "Okay, Google" and "find me a plumber." If you ask Siri for a "good plumber," you get suggestions with five-star ratings on Yelp. Amazon's picks come via Yelp and Yext. And Google's picks are approved by HomeAdvisor and Porch.

### Order a Pizza

Amazon can have a pie delivered to your home from a nearby Domino's, Papa John's, or Pizza Hut. Google Home users have to go with Domino's. On both speakers, you have to set up an online account with the vendor, then enable the app on the speaker, which can be tricky. ON AMAZON: "Alexa, open Pizza Hut." ON GOOGLE: "Okay, Google, talk to Domino's."

## JUST FOR FUN

### Take a Quiz

Like trivia? Amazon will ask you six questions a day from "Jeopardy." Google has a fast-paced game show of its own for up to five people, but it's hosted

by Google Assistant instead of Alex Trebek. Apple? Sorry, no such luck. ON AMAZON: "Hey, Alexa, play 'Jeopardy.'" ON GOOGLE: "Okay, Google, play 'Lucky Trivia.'"

### Hear a Joke

Smart speakers are always quick with a corny joke. All you have to do is ask. (Jimmy Fallon even delivers some one-liners for Amazon.) And don't be afraid to request popular genres. (Think lightbulb jokes.) ON AMAZON: "Alexa, tell me a golf joke." ON APPLE: "Hey, Siri, tell me a knock-knock joke." ON GOOGLE: "Okay, Google, tell me a dad joke."

### Tune Your Strings

Though they're not always spot-on, Amazon and Google offer pitches to help you tune guitars, violins, cellos, and, yes, ukuleles. ON AMAZON: "Alexa, open ukulele tuner." ON GOOGLE: "Okay, Google, play an F sharp."

### Announce Dinner

Amazon and Google let you make announcements via every compatible speaker in the house. ON AMAZON: "Alexa, announce that dinner is ready." ON GOOGLE: "Okay, Google, broadcast that it's dinnertime."

## MAKE A SOUND CHOICE

If you want a speaker with high-quality sound, choose carefully. Until recently, the pickings were slim. But the **Google**

**Home Max** has raised the standard, delivering far better audio than most models. The **Bose Home Speaker 500** and **Sonos One** (both

Alexa compatible) also sound great, and the **Sonos One** can be wirelessly added to the manufacturer's multiroom systems.

The **Amazon Echo Dot** and **Google Home Mini**—both priced at \$30—have limited sound quality, but they perform as well as their pricey siblings when it comes

to the smart part. Better yet, they can pair with a regular wireless speaker—say, a model from Denon's Heos line—to provide smart skills to a speaker that has great audio.



76

OVERALL SCORE

GOOGLE HOME MAX  
\$270



65

OVERALL SCORE

BOSE HOME SPEAKER 500  
\$400



64

OVERALL SCORE

SONOS ONE  
\$200



53

OVERALL SCORE

AMAZON ECHO DOT  
\$30



45

OVERALL SCORE

GOOGLE HOME MINI  
\$30

**HOW WE TEST:** Overall Score is based on a number of factors, including sound quality, assortment of features, and ease of use (i.e., wireless setup, console controls, voice control of music play functions, and operation of remote apps). We do not evaluate the quality or effectiveness of the smart technology itself.

# The Brave New World

Delivery services, curbside pickup, and apps give consumers new ways to save time and money. And for those



# of Grocery Shopping

who still like to shop the aisles, supermarkets are transforming themselves into “destinations.” **BY TOBIE STANGER**



READ ON  
TO LEARN  
HOW TO BECOME  
A SAVVIER  
SHOPPER.

ILLUSTRATION BY RAMI NIEMI





**I**T'S NOT UNUSUAL for Michelle Smith of Trussville, Ala., to grocery shop for three households at once. While stocking up for her husband and herself, she could also be buying for her 73-year-old mother-in-law, who lives 10 miles away, and making sure her youngest daughter, a college student, has healthy food in her apartment fridge.

Smith's juggling tool is Shipt, an online and app-based delivery service that lets her order groceries from Target and other chains. The \$99 annual fee is worth it, she says, because "it gives you time to do other things."

Del Clark of Bartlesville, Okla., shaves time off his shopping trips but avoids the fees by using Walmart's free Grocery Pickup service. Twice a week he orders on his smartphone, waits for a "ready" text, and drives to a designated parking area where a Walmart staffer loads his car. "Compared to going into the store and picking up things I didn't expect to buy or trying to find where they moved something," he says, "it's a time and money saver."

## Changing Lifestyles

The way Americans shop for groceries is changing fast—so fast that the traditional weekly trip to the market may reach an expiration date, just like milk.

In the past year alone, several supermarket chains—including Aldi, Cub Foods, Food Lion, Price Chopper, Publix, Schnucks, Tops, and Wegmans—extended the opportunity for their shoppers to order groceries remotely

and then pick them up curbside. Walmart expanded its version of this "click and collect" service. So did Target and Whole Foods Market.

Home delivery of fresh food is growing fast, too. By year-end, Walmart plans to double the number of stores that offer the service to 1,600. It uses its own workers to shop for orders and employs services like DoorDash, Postmates, and Skipcart to deliver them. Target acquired the Shipt delivery service in late 2017 to bring its products to customers' doors. Amazon Prime Now members in at least 75 metropolitan areas can now get fresh food from Whole Foods Market delivered in as little as an hour. And Costco members now have the option to order same-day delivery of fresh food via Instacart.

Clearly, there's an appetite for new ways to food shop. Google searches for "grocery delivery" rose nearly 40 percent between May 2018 and May 2019, and increased nearly sixfold for "grocery pickup." While only 7 percent of Consumer Reports members surveyed in the summer of 2018 told us they've used a grocery delivery service, 16 percent said they'd like to. Target's acquisition of Shipt could help make that possible. CR members rated Shipt tops among six competitors in its first-ever comprehensive ratings of grocery delivery services (see page 51).

## Speedier Shopping

Consumers are finding more time-saving tools and programs in stores as well.

■ In some Krogers and Sam's Clubs, members can use an app to scan each item they put in their carts, then skip checkout entirely by using a payment method uploaded to their phone.

■ Amazon has expanded its Amazon Go convenience stores beyond the pilot stage; it now has 12 of them in four states. Consumers activate an app that's linked to a payment method of their choice. The app tracks their movement and choices, and speeds them out the

door while extracting a payment—all without scanning a bar code or requiring a cashier.

■ Grocery apps are evolving to help people shop faster—and eat better. The Out of Milk Grocery List app, for instance, lets shoppers use their phones to scan bar codes of products at home, automatically adding them to an e-shopping list to be used at a store. Kroger's OptUP program steers app users toward food lower in saturated fat, sugar, and other ingredients.

Consumer Reports' latest consumer experience study of grocery apps found that users were generally pleased with how they create and manage shopping lists, apply coupons and discounts, navigate in-store to find items, and plan for shopping trips.

## Adventure in the Aisles

Companies are trying to streamline shopping for people who still venture into stores while also making it an occasion to browse, graze, and splurge. The strategy is succeeding for the top-rated retailers in Consumer Reports' ratings of 96 grocers (see page 52). Six excel for overall satisfaction: Texas-based Central Market; Wegmans, in the East; Heinen's, in Ohio and the Chicago area; Gelson's Markets, in Southern California; Market Basket, in New England; and the national chain Trader Joe's. All focus on providing a satisfying in-store experience.

The Heinen's in downtown Cleveland, for instance, located in a renovated bank building with a stained-glass domed ceiling, has become an upscale lunch and afterwork destination for dining and relaxing with a glass of chardonnay.

At Central Market's 10 stores, where the slogan is "Really Into Food," customers can attend cooking classes, health fairs, and festivals with themes like chocolate or chili, and listen to live music while dining on prepared foods in a café. "The quality and flavors are better than I've found anywhere else,"

says Don Rebsamen, who particularly enjoys the tortillas at the Central Market near his Dallas home.

In perhaps the perfect confluence of indulgence and convenience, Gelson's offers a service called Sip 'n' Shop at its 11 stores. While you relax at a store's wine bar, a Gelson's employee will do your grocery shopping for you at no extra charge.

Sometimes it's the quality of the store brands—items that carry the grocer's name—that propels shoppers into a store. The cost of these "private label" products—which are often made at the same plants as their name-brand counterparts, using similar ingredients and recipes—can be 20 to 25 percent less, says Burt Flickinger III, managing director at the Strategic Resource Group in

New York, a retail consulting company.

Often, though, shoppers are drawn by store-brand items unique to a retailer. On Central Market's Facebook page, for instance, a post about the retailer's small-batch ice cream—in flavors like coconut ginger and chili pepper pecan—drew rapturous responses.

### The Future of Food Shopping

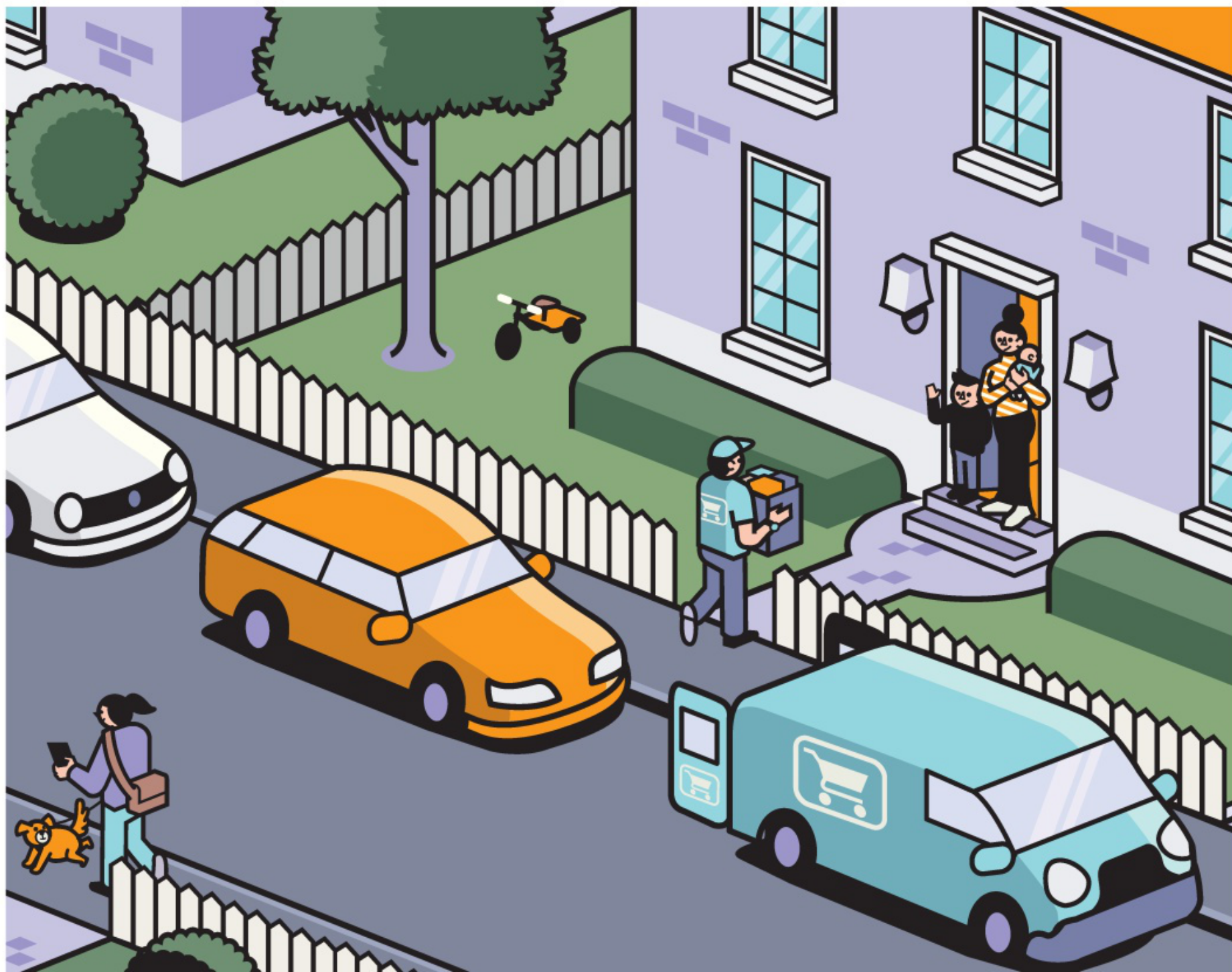
It's this mix of pleasure and efficiency that will inform the design of future grocery stores, says Phil Lempert, CEO of Consumer Insight, a supermarket industry consultant and founder of the website Supermarket Guru.

New stores will be smaller than they are now, with all but display items moved off the shelves to warehouse-style back rooms, he says. Robots will

pick and pack preordered items while shoppers roam in-store, sampling from displays of fresh produce, baked goods, locally made products, and freshly prepared foods.

Aldi is a harbinger, Lempert notes. With about 2,000 stores mainly east of the Mississippi, it has a following for its smaller footprint and selection of well-priced packaged goods, many of them private label. It recently upped its offerings of fresh products by 40 percent. Giant Food Stores, Hy-Vee, Meijer, and Publix have opened similar smaller-scale stores within the last year.

"That's the new model," Lempert says. "You build relationships with consumers by having a store that satisfies their needs and aligns with their values. That's how people are going to shop."





## CAN YOU TRUST A STRANGER TO SHOP FOR YOUR FOOD?

**WE WANTED TO KNOW**—given the growth of online and app ordering—whether grocery delivery services selected unblemished potatoes, jewel-like cherries, and dairy with far-off sell-by dates. Would groceries arrive promptly, and properly packed?

So we conducted a limited evaluation of Shipt, Amazon Prime Now, Instacart, Peapod, FreshDirect, Amazon-Fresh, and Walmart. (For the latter, the deliveries were handled by

DoorDash, the service that Walmart selected). In mid-April, a CR staffer ordered groceries to be delivered to homes in New York, New Jersey, and California. All 14 orders were to include skinless and boneless chicken breasts, ground beef, packaged bread, milk, a carton of eggs, and deli-sliced American cheese. That's in addition to fruit, salad, canned and jarred food items, and a hefty jug of chlorine bleach. None of the deliveries arrived

more than 10 minutes outside the stated delivery time window. Upon delivery, we checked the temperature of the perishables, inspected the condition of the groceries, checked sell-by dates, and noted how the items were packed. Here's what we found.

### Perishables seemed to be within safe temperature ranges.

The chicken and beef arrived with internal temperatures between

35.8° and 56.2°F. Surface temperatures for the cheese, eggs and milk carton ranged from 40° to 59.4°F. The Department of Agriculture says perishable food should be refrigerated at 42°F within 2 hours of shopping (1 hour when the air temperature is above 90°F).

**TIP:** "With deliveries, you don't know how long food might have been above 40 degrees," says Sana Mujahid, manager of food safety research at CR, "so make sure someone is available to receive perishables, and refrigerate them as soon as possible."

### The food was fresh, for the most part.

Most of the strawberries, green grapes, bananas, mixed greens, and eggs we received appeared to be fresh and in good condition. But some bananas, strawberries, and grapes arrived squished or with minor brown spots, and a few strawberry containers leaked or looked underfilled. A box of grapes from Peapod arrived with several blooms of white, puffy mold. Peapod didn't respond to our requests for comment.

A carton of eggs from Walmart, delivered on April 23, had a best-by date of March 22. (Raw eggs generally can sit in the refrigerator for three to five weeks.) Walmart didn't respond to our requests for comment.

**TIP:** Order from a grocer with a high rating for its fresh produce (see page 52). Seek redress if you're not satisfied; all

of the services offer a refund, a replacement, or a credit voucher.

### Packaging quality varied.

FreshDirect padded its groceries the most, wrapping bananas in foam and swaddling a jar of pasta sauce in paper straw. It sent groceries in sturdy, woven plastic bags with handles.

In analyzing our limited data, we found that the type of delivery box or bag used didn't correlate with grocery temperatures. But some grocers didn't bother to put raw meat and chicken in their own plastic bags to prevent leakage and cross-contamination.

**TIP:** If there's space for special instructions in your order—or if you can communicate with your shopper through text or a chat—specify which items you want packaged separately.

### Discounts and promotions reduced delivery pricing.

We saved money by taking advantage of promotions and meeting minimum orders.

**TIP:** Avail yourself of free trial memberships and seasonal discounts. An annual membership to Instacart Express, FreshDirect DeliveryPass, and Shipt will save you money over monthly memberships or nonmember rates. You may be able to avoid delivery fees by ordering at least the minimum, typically \$35.

Use the service's app to search for promotions and apply them to your delivery. If the service and the grocery store aren't the same—say,

an Instacart delivery of Kroger groceries—you'll need to enter your Kroger membership info into the Instacart app to apply the maximum discounts.

Be flexible about delivery times. Some services give a discount or charge a premium depending on the day or length of the delivery window chosen. We found that if we were willing to wait 5½ hours instead of choosing Peapod's typical 2-hour window, we could save \$4.

### Delivered items can cost more.

Instacart, an independent delivery service, says that the retailers it deals with may charge more for delivered items than what they charge in a store. Walmart, on the other hand, says that the prices of its delivered groceries—and of groceries through its curbside pick-up service—are the same as in-store prices.

Costco members can get fresh food delivered through Instacart without having to pay the \$99 Instacart Express annual fee, assuming the order is at least \$35. But in a shopping experiment conducted late last year, we found Costco member pricing on delivered grocery items—including fresh salmon, blueberries, avocados, eggs, milk, and its famous rotisserie chicken—was 31 percent higher, on average, than what it charged members in its warehouse.

### Amazon Prime Now Beat AmazonFresh.

When we ordered, AmazonFresh was the only service that

appeared to have every item in the exact size we wanted. But inexplicably, in the actual delivery the AmazonFresh shopper substituted the mixed salad greens we'd ordered with cooked organic beets—without contacting us beforehand.

We had no such problem with lower-cost Amazon Prime Now; it's included in Amazon Prime's annual membership, which ranges from \$59 for students to \$119 for most others. (There's no extra fee for deliveries of \$35 or more.) It's available in dozens of cities nationwide and delivers groceries from Whole Foods Market, which is owned by Amazon. Depending on where you live, you may also be able to get deliveries from other local stores and restaurants.

AmazonFresh, which is available only in 15 major cities, costs \$14.99 per month above the annual Amazon Prime membership. There are no additional delivery fees for individual AmazonFresh orders over \$35. It delivers groceries only from Amazon fulfillment centers, though in our experiment an AmazonFresh delivery included organic spring mix salad in a container marked "Whole Foods." AmazonFresh was the lowest-rated service in our CR ratings of grocery delivery services, and received low marks for pricing.

**TIP:** For delivered groceries from Whole Foods Market, use Amazon Prime Now, which was among the top-rated in our survey.

## ONLINE GROCERY DELIVERY SERVICES



**HOW WE SURVEY:** Ratings for this chart are based on 3,043 Consumer Reports members who completed the 2018 Supermarkets Survey and rated online grocery services. For the **Overall Satisfaction Score**, 100 means all respondents were completely satisfied, 80 means very satisfied, 60, somewhat satisfied, on average. (Differences of fewer than 3 points aren't meaningful.) Scores for hours of delivery, timeliness, communications/updates on food availability/delivery progress, quality/freshness of food, prices of delivered grocery items, cost for delivery/subscription service, packaging of food, variety of food choices, customer service via voice call, customer service via text, and customer service online are relative and reflect averages on a scale from completely satisfied to completely dissatisfied. CR members may not be representative of the general U.S. population. "—" indicates an insufficient number of survey responses to display results. This survey was fielded before Instacart changed its annual fee to \$99 from \$149.

**Ratings** > **Supermarket Showdown** In our recent survey of more than 75,000 Consumer Reports members, the key reasons they... The ratings below are for 96 supermarkets, supercenters, and warehouse stores, the most we've ever rated. Five regional... Central Market; Heinen's, in Ohio and the Chicago area; Gelson's Markets in Southern California; Wegmans, in the East;

Store	Reader Survey Results													
	Overall satisfaction score	Cleanliness of store	Competitiveness of prices	Freshness of store-prepared foods	Helpfulness/attentiveness of employees	Checkout speed	Produce quality	Produce variety	Meat/poultry quality	Store-brand quality	Selection of healthy options	Prices of organic options	Selection of locally produced products	Variety of international products/multicultural foods
Central Market (TX)	91	↑	↓	↑	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑
Wegmans	90	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑
Heinen's	89	↑	↓	↑	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑
Gelson's	87	↑	↓	↑	↑	↑	↑	↑	↑	—	↑	↓	↑	↑
Trader Joe's	87	↑	↑	↓	↑	↑	↓	↓	↓	↑	↑	↓	↓	↑
Market Basket (Northeast)	87	↑	↑	↑	↑	↑	↓	↑	↓	↑	↓	↓	↓	↑
Crest	86	↑	↑	—	↑	↑	↑	↑	—	—	—	—	—	—
Fareway Stores	86	↑	↑	↓	↑	↑	↓	↓	↑	↓	↓	↓	↓	↓
New Seasons Market	86	↑	↓	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑	↑
Costco	86	↑	↑	↑	↓	↓	↑	↓	↑	↑	↑	↓	↓	↓
Publix	86	↑	↓	↑	↑	↑	↑	↑	↑	↑	↓	↓	↓	↑
Military Commissary	86	↑	↑	↓	↓	↑	↓	↓	↑	↑	↓	↓	↓	↑
Rosauers	85	—	—	—	—	↑	—	—	—	—	—	—	—	—
H-E-B	85	↑	↑	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑	↑
The Fresh Market	85	↑	↓	↑	↑	↑	↑	↑	↑	↑	↓	↓	↓	↑
WinCo	85	↑	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Festival Foods (WI)	85	↑	↓	↑	↑	↑	↑	↑	↑	↑	↓	↑	↓	↓
Dierbergs	85	↑	↓	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑	↑
Lunds & Byerlys	85	↑	↓	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑	↑
Fresh Thyme Farmers Market	85	↑	↓	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↓
Sprouts Farmers Market	84	↑	↑	↓	↑	↓	↑	↑	↑	↓	↓	↑	↑	↓
Natural Grocers	84	↑	↓	—	↑	↑	↑	↓	↓	↑	↑	↓	↓	↓
Aldi	84	↑	↑	↓	↓	↑	↓	↓	↓	↑	↑	↓	↓	↓
Woodman's	83	↓	↑	↓	↓	↓	↓	↑	↓	↓	↑	↓	↑	↑
Stater Bros.	83	↑	↑	↓	↑	↓	↓	↓	↑	↓	↓	↓	↓	↓
Fry's	83	↑	↑	↓	↑	↓	↑	↑	↓	↑	↓	↓	↓	↓
Reasor's	82	↑	↓	↑	↑	↑	↓	↓	↑	↓	—	↓	—	—
Raley's	82	↑	↓	↓	↑	↑	↑	↑	↑	↓	↓	↑	↓	↓
Lucky's Market	82	↑	↓	↑	↑	↓	↑	↑	↑	↑	↓	↑	↑	↓
Lowes Foods (NC, SC, VA)	82	↑	↓	↑	↑	↑	↓	↓	↑	↓	↓	↑	↑	↓
Hy-Vee	81	↑	↓	↓	↑	↑	↑	↑	↑	↓	↓	↓	↓	↓
Redner's	81	↑	↑	↓	↓	↑	↓	↓	↓	↓	—	↓	—	—
Harris Teeter	81	↑	↓	↓	↑	↓	↓	↑	↓	↓	↓	↓	↓	↓
Haggen Northwest Fresh	81	↑	↓	—	↑	↑	↑	↑	—	—	—	—	—	—

# WHAT IS AVAXHOME?

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choose a store were low prices, a wide variety, and good-quality produce. chains took top prizes for overall satisfaction—Texas-based and Market Basket in New England—plus a national chain, Trader Joe's.

Store	Reader Survey Results													
	Overall satisfaction score	Cleanliness of store	Competitiveness of prices	Freshness of store-prepared foods	Helpfulness/ attentiveness of employees	Checkout speed	Produce quality	Produce variety	Meat/poultry quality	Store-brand quality	Selection of healthy options	Prices of organic options	Selection of locally produced products	Variety of international products/multicultural foods
Lidl	81	↑↑	↑↑	—	↓	↓	↑	↓	↓	↓	—	—	—	
King Soopers	81	↑	↑	↓	↓	↓	↑	↑	↓	↓	↓	↑	↓	
Mariano's	80	↑	↓	↑	↓	↓	↑	↑	↑	↓	↓	↓	↑	
Smith's	80	↑	↓	↓	↑	↓	↓	↓	↓	↓	↓	↓	↓	
Grocery Outlet	80	↓	↑↑	—	↓	↑	↓↓	↓↓	↓	↓	↑	↓↓	↓	
Roche Bros.	80	↑↑	↓↓	↓	↑	↑	↑	↑	↑	↓	↓	↓	—	
Rouses	80	↑	↓	↑	↑	↑	↑	↓	↑	↓	↓	↑↑	↓	
Schnucks	80	↑	↓	↓	↓	↓	↑	↑	↑	↓	↓	↓	↓	
Fred Meyer	80	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
Bashas'	80	↑	↓	↓	↑	↓	↓	↓	↑	↓	↓	↑	↓	
Coborn's	80	—	↓↓	—	—	—	↓	↓	—	—	—	—	—	
Brookshire's	80	↑↑	↓	↓	↑	↑	↓	↓	↓	↓	↓	↓	↓	
Hannaford	80	↑	↓	↓	↑	↓	↓	↓	↓	↓	↓	↑	↓	
Ingles	80	↑	↓	↓	↓	↑	↓	↓	↓	↓	↓	↓	↓	
Big Y	79	↑	↓	↓	↑	↓	↓	↓	↓	↓	↓	↑	↓	
ShopRite	79	↓	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
Meijer	79	↑	↑	↓	↓	↓↓	↑	↑	↓	↓	↓	↓	↓	
Dillons	79	↑	↓	↓	↑	↓	↑	↑	↓	↓	↓	↓	↓	
Sam's Club	79	↓	↑	↓	↓	↓	↓	↓	↑	↓	↓	↓↓	↓	
Whole Foods Market	79	↑	↓↓	↑	↑	↑	↑	↑	↑↑	↑	↓	↑	↑	
Ralphs	79	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
BJ's Wholesale Club	79	↓	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	
Save Mart Supermarkets	79	↑	↓	↓	↑	↓	↓	↓	↓	↓	↓	↓	↓	
Smart & Final	79	↓	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
Fairway Market	78	↓	↓	↓	↓	↓	↓	↑	↑	↓	↓	↓	↑	
Super One Foods (MI, MN, WI)	78	↑	↓	—	↑	↑	↓	↓	↓	↓	—	—	—	
QFC (Quality Food Centers)	78	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
Save-A-Lot	78	↓	↑↑	—	↓	↑	↓	↓↓	↓	↓	—	↓	↓↓	
Martin's Foods (MD, PA, VA, WV)	77	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
Marc's	77	↓	↑↑	—	↓	↓↓	↓	↓	↓↓	↓	↓	↓	↓	
Giant Food Stores (PA)	77	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
Kroger	77	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
Cub Foods	77	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
IGA	77	↑	↓	↓	↑	↑	↓	↓	↑	↓	↓↓	↓	↓↓	



Store	Reader Survey Results													
	Overall satisfaction score	Cleanliness of store	Competitiveness of prices	Freshness of store-prepared foods	Helpfulness/ attentiveness of employees	Checkout speed	Produce quality	Produce variety	Meat/poultry quality	Store-brand quality	Selection of healthy options	Prices of organic options	Selection of locally produced products	Variety of international products/ multicultural foods
Shoppers	77	↓	↑	—	↓	↓	↓	↓	↓	↓	↓	—	↓	↑
King Kullen	76	↑	↓↓	↓	↓	↓	↓	↓	↓	↓	↓	—	↓	↓
Food City (GA, KY, TN, VA)	76	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Albertsons	76	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Food Lion	76	↓	↓	↓↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Target/SuperTarget	76	↑	↑	↓↓	↓	↓	↓↓	↓↓	↓	↓	↓	↓	↓↓	↓↓
Tom Thumb (TX)	76	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
County Market	75	↑	↓	↓	↓	↑	↓	↓	↓	↓	↓	—	↓	↓
Lucky (CA)	75	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Piggly Wiggly	75	↓	↓	—	↑	↑	↓	↓	↓	—	—	—	—	—
Giant Food (DC, DE, MD, VA)	75	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Weis	75	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Vons	74	↑	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Price Chopper (Northeast)	74	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Giant Eagle	73	↓	↓↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
BI-LO (GA, NC, SC)	73	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Winn-Dixie	73	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Shop 'n Save (MD, NY, OH, PA, WV)	73	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓↓
Pick 'n Save	73	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Jewel-Osco	72	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Randalls	72	↑	↓↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Stop & Shop	72	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Safeway	72	↓	↓	↓	↓	↓↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Acme Markets	70	↓	↓↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Shaw's	70	↓	↓↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Walmart Supercenter	70	↓	↑	↓↓	↓↓	↓↓	↓↓	↓	↓↓	↓	↓	↓↓	↓↓	↓
Tops	70	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓↓	↓	↓
Key Food	69	↓	↓↓	↓↓	↓	↓	↓↓	↓↓	↓	↓↓	↓↓	↓↓	↓↓	↓

**HOW WE SURVEY:** Ratings are based on Consumer Reports members' responses to the 2018 Supermarkets Survey about their experiences at one or two

supermarkets, supercenters, or warehouse clubs. In all, 75,065 members told us about 140,106 store visits. For the **Overall satisfaction score**, 100 means

all respondents were completely satisfied, 80 means very satisfied, 60, somewhat satisfied, on average. (Differences of fewer than 5 points aren't meaningful.)

CR members may not be representative of the general U.S. population. "—" indicates there was an insufficient number of survey responses to display results.



STAY AHEAD  
OF THE CURVE  
WITH CR AUTO  
RATINGS, NEWS  
& ADVICE™

# ROAD REPORT

## AHEAD OF THE CURVE

### Safer Headlights

Adaptive driving beam (ADB) headlights, already available in Canada and Europe, could make driving at night in the U.S. safer, according to a new report from AAA. "The study shows that ADB headlights can allow drivers to see as far as traditional high beams do, but without having to switch from low beams and without the added glare that can diminish visibility for other drivers," says Jennifer Stockburger, who oversees CR's headlight testing. In October the National Highway Traffic Safety Administration proposed changing its standards to allow ADB headlights, a move that CR supports. But if they do become available, they won't be cheap: The ADB headlights that AAA tested cost as much as \$6,600 more than traditional headlights.

## ASK OUR EXPERTS

### Should I Use Nitrogen in My Tires?



Some auto dealers and tire retailers tout the advantages of using nitrogen to fill tires, including reduced air loss and better fuel economy. But testing by CR found only a 1.3 psi reduction in pressure loss, on average, over 12 months in tires filled with nitrogen vs. those filled with air. Our advice: Skip the added cost of nitrogen (up to \$5 a tire). Instead, check your tire pressure once a month and top off as necessary. **"Routinely checking the pressure and filling up with regular air is a low-cost way to improve your car's safety and fuel efficiency,"** says Gene Petersen, who heads CR's tire testing.

## THE VITAL STATISTIC

# 35%

Percentage of respondents to a DriversEd.com survey who think that typing a text while driving is legal in most states. In fact, it's illegal in every state but Missouri\* and Montana.

Source: DriversEd.com survey of 1,043 U.S. men and women 18 or older.

## RECALL

### Ford Fusion

Ford is recalling 259,182 Fusion sedans with a 2.5-liter engine because of a transmission problem that could lead drivers to think they've put the vehicle in Park when it's still in Drive, Reverse, or Neutral. That could cause the car to roll, increasing the risk of injury or crash. The recall covers cars built from April 12, 2013, to Feb. 29, 2016, at the Flat Rock, Mich., plant and from Feb. 9, 2012, to April 4, 2016, at the Hermosillo (Mexico) plant.

**What to do:** Ford says it will provide owners with repair information. Until then, it says owners should engage the parking brake in addition to shifting to Park. The Ford reference number for this recall is 19S16.

## TRENDS

### A Car That Has Your Name on It

Based on data from the Social Security Administration on names given to babies in 2018, it appears that some people

love certain auto brands so much that they named their children after them. But just because a brand's name is popular doesn't mean its vehicles are top performers. To find out which ones are, you can always rely on CR's auto ratings, based on rigorous testing and extensive surveys, at [CR.org/cars](http://CR.org/cars).

2018	BOYS	GIRLS
Audi	9	9
Bentley	3,250	143
Chevy	136	40
Ford	413	6
Kia	0	16
Tesla	7	102



# Safety Systems That Could Save Your Life

In our exclusive CR survey, many owners of vehicles with advanced safety systems said those features helped them avoid a crash.

by Mike Monticello

JAMES ERIKSEN WAS driving his 2017 Subaru Outback on a four-lane road in Skokie, Ill., when he sensed something coming up alongside him.

“Suddenly, a deer jumped right in front of my car, and before I could fully apply the brakes, my Outback came to a complete stop on its own. That was amazing!” Eriksen wrote in response to CR’s 2018 Advanced Driver Assistance Systems (ADAS) survey. “Without the car’s automatic emergency braking system, I’d have hit the deer, no question about it.”

Similar scenes of near-collisions are occurring all over the country, according to the survey results. We asked CR members to tell us about their experiences with ADAS in their vehicles, including forward collision warning (FCW), automatic emergency braking (AEB), blind spot warning (BSW), and others.



A majority—57 percent—reported that at least one advanced driver-assist feature in their vehicle had kept them from getting into a crash. Studies and our own testing have shown several of the features can improve safety, but we wanted to get some real world, behind-the-wheel details from our members. For this ADAS survey, CR members provided data on about 72,000 vehicles.

These systems use a variety of “eyes”—cameras, radar, and other sensors—to see what’s happening on the roads around them. They process that information using onboard computers that can respond, often faster than a human driver, when a crash appears imminent. They can brake for the driver; they can give initial steering input to keep a car in its lane; and they can maintain a safe speed and distance from other cars in traffic, all with minimal input from drivers.

Over the past decade, cars sold in the U.S. have seen huge growth in the availability of these systems, starting with FCW and AEB, and expanding to BSW, lane departure warning (LDW), lane keeping assist (LKA), and, most recently, pedestrian detection systems.

Because they’re proving so effective, CR gives extra points to the Overall Score for tested models that have the following systems as standard equipment across all trim lines: FCW, highway-speed AEB, city-speed AEB with pedestrian detection, and BSW.

“Cars can do so much today to keep their drivers and passengers safe, and we want to push the industry to make these systems commonplace for all drivers,” says Jake Fisher, senior director of auto testing for Consumer Reports. “Our survey results show that in the real world, these systems are creating positive outcomes in situations

that only a few short years ago would have ended in costly and tragic results.”

And while it’s great that automakers are putting more of these proven systems in new cars—including mainstream models such as the Nissan Altima—some car companies continue to charge extra for them. Automakers including Tesla and Toyota are putting many of these systems in almost all of their 2019 models, but Fiat Chrysler Automobiles and General Motors don’t have AEB standard on a single 2019 model.

“Safety shouldn’t be optional,” says William Wallace, a safety policy advocate for CR. “These systems should be standard on every new car, not just on luxury vehicles or more expensive trims, because even drivers and passengers who don’t know about these systems would benefit from having them.”

## Collision Avoidance

The CR survey—which includes comments from members who have benefited from these systems in their cars—shows that advanced driver-assist features are coming of age and are clearly helpful for some drivers—possibly even lifesaving.

The survey respondents reported the highest satisfaction with AEB, adaptive cruise control (ACC), and BSW in their vehicles.

The least satisfying systems were lane-keeping features because of their annoying alert chimes, vibrations, or overly aggressive steering corrections. That led owners to disable them more frequently than other ADAS features, according to the survey.

The feature that drivers most often said kept them out of a crash in our survey was BSW—60 percent said it had prevented a collision. BSW was also the system that drivers turned off least often for being annoying, according to the survey results.

A CR member in Florida was in her 2017 Toyota Prius when the BSW system helped her avoid a motorcyclist, she said. “I was about to move from the middle lane to the right lane when a motorcycle traveling at a high rate of speed appeared out of nowhere,” she said in an email to CR. “If the monitor hadn’t lit up [in the passenger-side mirror], I would have entered the lane without enough clearance. That was one scary experience.”

## The Price of Peace of Mind

CR’s survey results showed that some drivers didn’t specifically seek out these

features and that they were unwilling to pay extra for them.

One in 5 survey respondents told us they didn’t specifically look to get AEB in their cars. But among even those owners, nearly half—42 percent—said AEB kept them out of an accident.

Take John Molinaro, a CR member from Athens, Ohio, who didn’t know much about Subaru EyeSight, the automaker’s suite of advanced safety and convenience features, when he was buying a 2016 Outback wagon. “I saw it as a \$1,300 option I didn’t need,” he told us. “However, during my first week of ownership, the car’s AEB system prevented a major accident when a vehicle in front of me slammed on its brakes to avoid hitting a cat. It was definitely worth the extra money to not crash into that car.” The cat survived too, he said.

His experience is exactly why CR has been pushing for systems such as FCW and AEB to be standard equipment on all versions of all models, says Kelly Funkhouser, CR’s program manager for vehicle usability and automation. “Many drivers don’t realize that they’ll need these features or that they’re available, so they’re less likely to spend extra money to get them.”

FCW, AEB, and BSW have been shown to reduce crashes and injuries, according to the Insurance Institute for Highway Safety, a nonprofit scientific and educational organization.

IIHS data shows that vehicles equipped with FCW and AEB have 50 percent fewer front-to-rear crashes compared with cars without the systems.

Cars equipped with rear automatic

braking, along with rearview cameras and parking sensors, had 78 percent fewer crashes compared with cars without those three systems, says David Aylor, IIHS manager of active safety testing.

Given the rate of growth for AEB in cars sold in the U.S., some 28,000 crashes and 12,000 injuries could be prevented by 2025, the IIHS says.

## An Even Safer Future

Many motorists will soon be getting these systems. Only 29 percent of new vehicle models sold in the U.S. in 2018 had standard AEB. But that number rose to 48 percent for the 2019 model year, according to data compiled by Shawn Sinclair, CR’s automotive engineer for advanced driver assistance systems. Twenty major automakers have pledged to include standard FCW and city-speed AEB in almost every new vehicle for sale in the U.S. by September 2022. It’s part of an agreement negotiated by the automakers and the National Highway Traffic Safety Administration and IIHS. Consumer Reports has agreed to monitor automaker progress.

Some manufacturers, such as Acura, Audi, BMW, Genesis, Lexus, Mercedes-Benz, Tesla, Toyota, and Volvo, are leading the industry by already making FCW and AEB standard in most (or, in some cases, all) of their vehicles.

A Toyota spokeswoman, Tania Saldaña, says these features have been a great selling point for the automaker: “Most Toyota owners have indicated that standard AEB was a determining factor in selecting a new vehicle.”

We asked FCA and GM why AEB isn’t standard across a model line on any of their 2019 vehicles. An FCA representative, Eric Mayne, said the automaker “offers AEB in 19 models across six brands and eight vehicle segments, from small SUV to heavy-duty pickup.” A GM representative said that some of its vehicles will have standard FCW, AEB, and other advanced safety features for the 2020 model year.

**Vehicles that have FCW and AEB have 50 percent fewer front-to-rear crashes compared with cars without the systems, according to IIHS safety research.**

## WHAT DRIVERS SAID ABOUT THEIR SAFETY AND ASSIST SYSTEMS

In our most recent survey, we asked CR members to rate their experiences with the advanced safety and driver-assist systems on their model-year 2015-2019 cars. Respondents answered questions about their satisfaction with the systems and told us which ones helped them avoid a crash. The survey covered about 72,000 vehicles.



### Blind Spot Warning (BSW)

**WHAT IT DOES:** Blind spot warning (BSW) indicates when there's a vehicle on either side of your car, warning about a vehicle potentially in a driver's blind spot. BSW gives a visual alert—usually on the side mirror or mirror frame, or near the base of the front pillar—to indicate that it might be unsafe to merge or change lanes. Some systems provide an additional, audible warning when the turn signal is activated if a car is in a lane next to you.

**AUTOMAKERS WITH THE BEST SYSTEMS, ACCORDING TO OWNERS\*:**

Genesis, Hyundai, Kia, Lexus, Lincoln, Mazda, Mercedes-Benz, Nissan

\* We rated automakers based on owner feedback about which systems helped them avoid a crash, as well as their satisfaction with the feature. They're listed alphabetically.

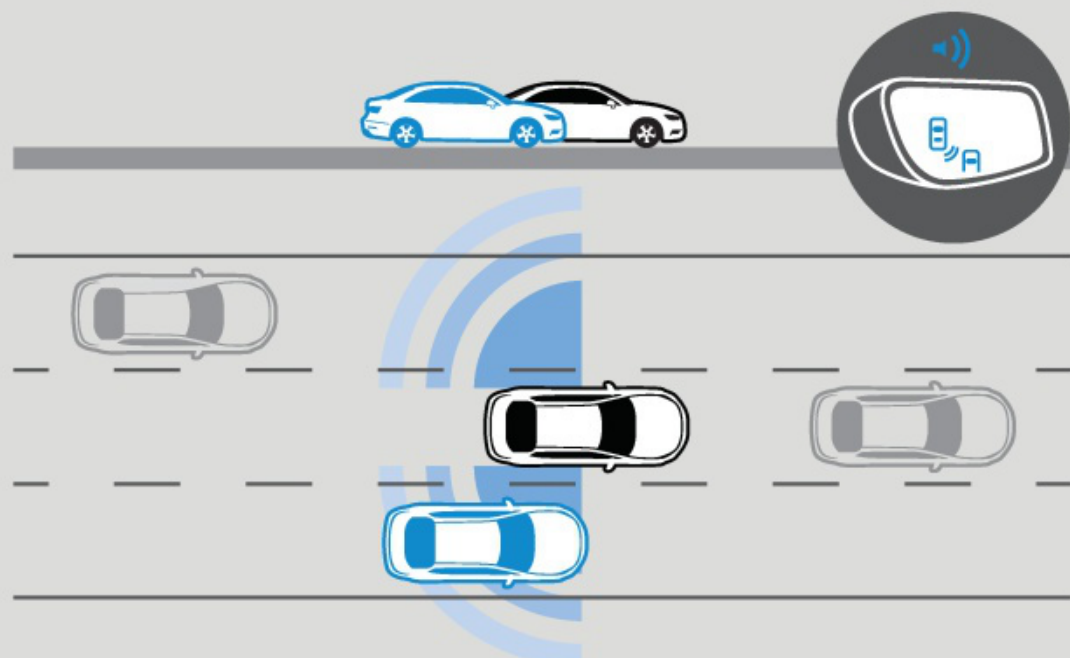
**GOOD:** BSW systems that provide a visual warning on a side-view mirror.

**BETTER:** Systems that provide a visual and audible warning and can detect fast-moving vehicles approaching in an adjacent lane. The better systems warn about other vehicles moving into a driver's blind spot before they get there.

**CR'S TAKE:** BSW is one of CR's recommended safety features. Models that have it as standard equipment across all trims get bonus points from CR, and our members also rate it favorably. It makes for safer lane changes, a real boon for drivers in vehicles with big blind spots. CR's testers prefer systems that use a bright warning light on the side mirror, as opposed to on the infotainment display screen or instrument cluster. Even if shoppers have to pay extra for this feature, we don't think they'll regret it.

60%

Percentage of owners who said it helped them avoid a crash.



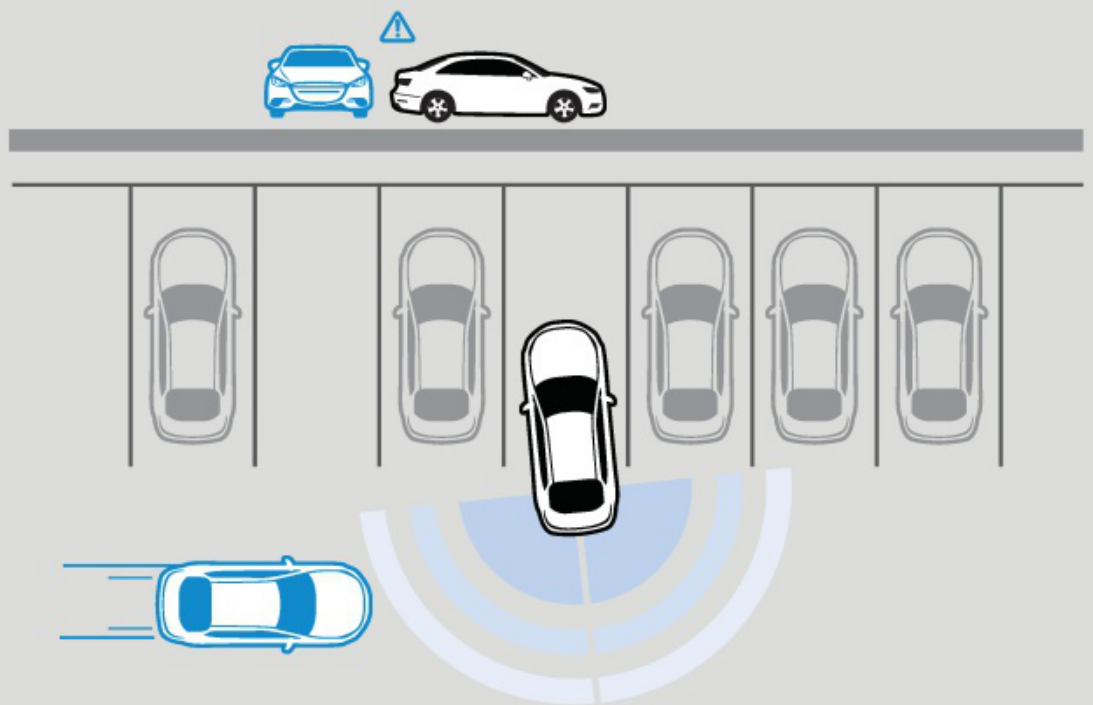


## Rear Cross Traffic Warning and Rear Automatic Emergency Braking

**WHAT THEY DO:** Most basic rear cross traffic warning systems also include a rearview camera. (For all new cars built for sale in the U.S., rearview cameras are now mandatory.) Some systems provide static lines on the screen that indicate how close your car is getting to other objects as you're backing up. Others have dynamic guidelines on the screen that move as you turn the steering wheel. Some cars are available with a 360-degree view that can show a top-down view around the car. The most sophisticated systems—those with rear cross traffic alerts coupled with automatic braking—detect vehicles or people approaching from the rear and apply brakes when needed.

**AUTOMAKERS WITH THE BEST SYSTEMS, ACCORDING TO OWNERS\*:** Genesis\*\*, Hyundai\*\*, Infiniti, Jeep, Kia\*\*, Lincoln\*\*, Mazda\*\*

\*\* Even if a car in our survey didn't offer rear AEB, we still included the manufacturer because it scored well for rear cross traffic warning.



**GOOD:** Rear cross traffic warning systems provide drivers with a visual, audible, and/or tactile alert (the seat vibrates, for example), notification that an object or vehicle out of rear camera range is approaching from either side.

**BETTER:** Cars that automatically brake when the system senses that a collision is imminent.

**CR'S TAKE:** These systems are helpful in increasing the driver's view into obscured areas. But drivers shouldn't rely on just the system; they still need to turn their head, check their side mirrors, and look out windows for objects that may be out of range of the camera or sensors. Drivers have complained about occasional false alerts from the systems that offer warnings or brake for them. And drivers have been surprised by warning beeps when they can't see anything, or by the car braking unexpectedly.

52%

Percentage of owners who said rear systems helped them avoid a crash.



## Adaptive Cruise Control (ACC)

**WHAT IT DOES:** Not as much a safety feature as it is a convenience, adaptive cruise control (ACC) uses lasers, radar, and/or cameras to keep a constant space between your car and the car ahead. If highway traffic slows, the better ACC systems can bring the car to a complete stop, then bring it back up to speed when traffic gets going again. Less advanced systems only work above certain speeds, typically around 37 mph.

**AUTOMAKERS WITH THE BEST SYSTEMS, ACCORDING TO OWNERS\*:**

Cadillac, Ford, Genesis, Lincoln, Mercedes-Benz, Porsche, Tesla, Volvo



## Forward Collision Warning (FCW) and Front Automatic Emergency Braking (AEB)

**WHAT THEY DO:** Forward collision warning (FCW) provides a visual, audible, and/or tactile warning (such as a vibrating seat) about an impending collision when a car or object is detected in its path. If the car senses a potential collision, and if drivers don't react in time, the automatic emergency braking (AEB) system initiates braking to prevent a crash, or at least to reduce the severity of a collision. AEB comes in two forms: city speed and highway speed. IIHS data shows rear-end collisions are cut by 50 percent for vehicles equipped with both FCW and AEB.

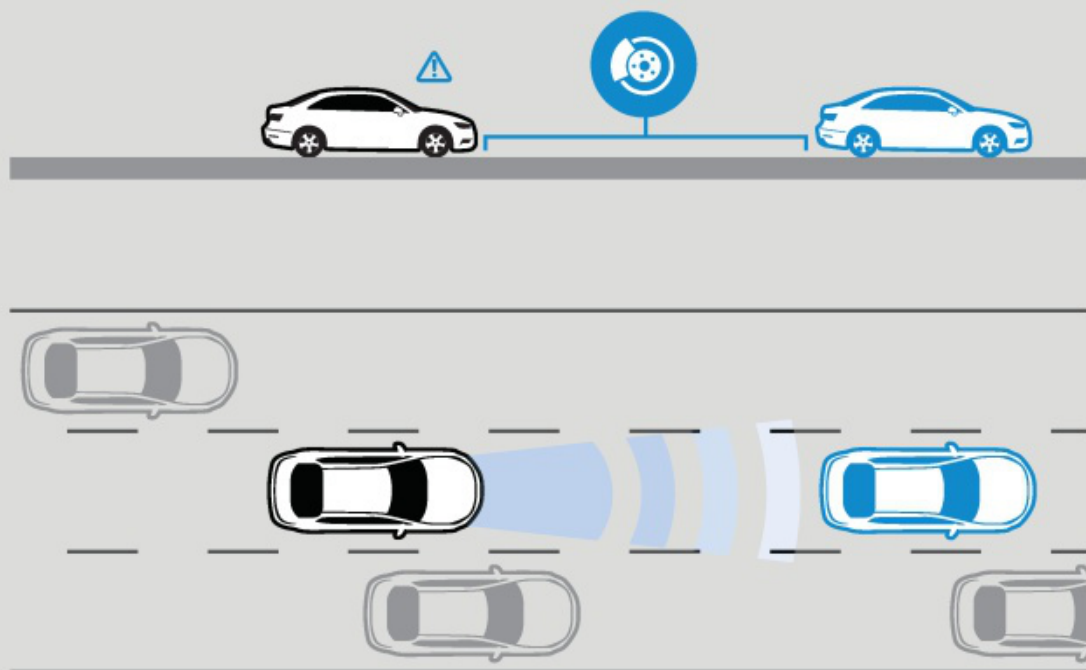
### AUTOMAKERS WITH THE BEST SYSTEMS, ACCORDING TO OWNERS\*:

Genesis, Lincoln, Subaru, Tesla, Volvo

**GOOD:** ACC that maintains a driver's set speed, slowing and accelerating in response to the traffic in front of the vehicle.

**BETTER:** ACC that works at all speeds, including coming to a complete stop and then restarting with traffic back to the previously set speed.

**CR'S TAKE:** ACC is a convenience feature and not a safety feature. It isn't designed to prevent crashes, but it's a great system for the highway, reducing some of the stress involved with driving. It also helps prevent tailgating.



**GOOD:** Systems that use FCW to warn drivers of possible crashes.

**BETTER:** Systems that can issue a warning and take action if the driver doesn't react appropriately.

**BEST:** Systems that can operate at all speeds and detect pedestrians.

**CR'S TAKE:** More automakers are making FCW and AEB available in new cars, but the two safety features are still not standard equipment across the industry. CR believes these systems should come with all trim levels given their ability to protect and save lives. Extra credit is awarded in our Overall Score for models that have systems that can operate at highway speeds and detect pedestrians as standard equipment.

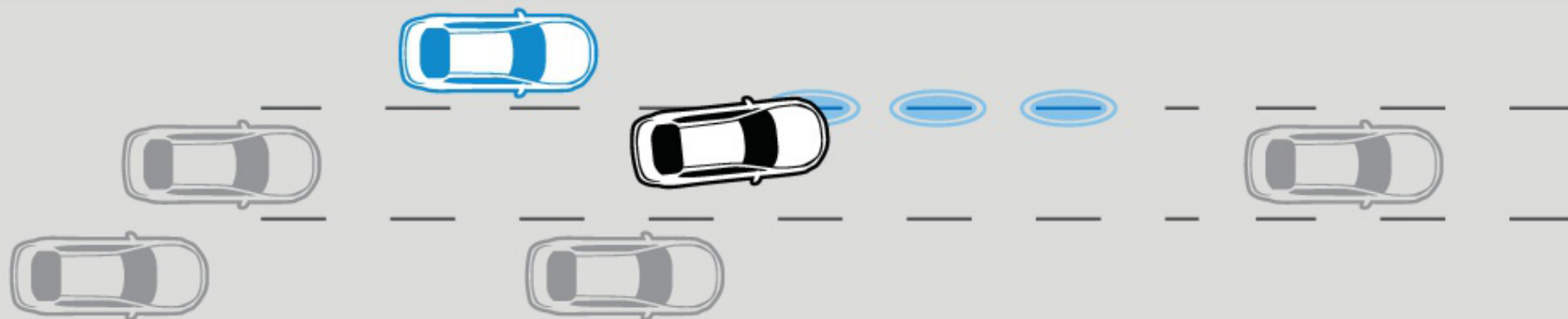
# 47%

Percentage of owners who said FCW and/or AEB helped them avoid a crash.

# 19%

Percentage of owners who said it helped them avoid a crash.





## Lane Departure Warning (LDW) and Lane Keeping Assist (LKA)

**WHAT THEY DO:** Lane departure warning (LDW) gives drivers visual, audible, and/or tactile warnings (such as a seat vibration) when a car approaches or crosses lane markings, unless the driver has activated a turn signal. Lane keeping assist (LKA) gives steering input and/or applies the brakes to correct a vehicle if it starts to exit its traveling lane. Owners told us that they found overly sensitive systems to be annoying. Respondents also reported significantly lower satisfaction with LDW and LKA compared with other features.

**AUTOMAKERS WITH THE BEST SYSTEMS, ACCORDING TO OWNERS\*:**

Cadillac, Genesis, Hyundai, Jaguar, Mercedes-Benz, Tesla

**GOOD:** LDW systems that have audible, visual, and/or tactile alerts to warn drivers that they're drifting out of a lane.

**BETTER:** LKA systems that automatically steer a car to keep it in its current lane when the car drifts.

**CR'S TAKE:** LDW systems can help sleepy or distracted drivers. The alerts also provide a good reminder to use your turn signal when changing lanes. But systems that are too sensitive and have lots of annoying false positives, particularly audible alerts, can cause drivers to turn them off, negating any benefits. When using LKA, giving a wide berth to a cyclist or pedestrian might cause the system to try to steer back toward the cyclist or walker, so always be alert. Most systems require drivers to keep their hands on the wheel. But lightly holding the steering wheel—to prevent the system from issuing an alert—doesn't mean the driver is paying attention to the road.

31%

Percentage of owners who said it helped them avoid a crash.



LUXURY COMPACT SEDANS

## BMW 3 Series

A Driver's Dream, With Punch & Grace

77

OVERALL SCORE

ROAD-TEST SCORE 86

**HIGHS** Handling, acceleration, braking, transmission, fuel economy, front-seat comfort, fit and finish

**LOWS** Controls, overzealous lane keeping assist

**POWERTRAIN** 255-hp, 2.0-liter 4-cylinder turbocharged engine; 8-speed automatic transmission; all-wheel drive

**FUEL** 29 mpg on premium fuel

**PRICE AS TESTED** \$52,995

**BMW TOOK SOME** of the best aspects of the last 3 Series—sharp handling, a responsive drivetrain, and comfortable seats—and ratcheted them up half a notch with the revamped 2019 model. This version makes even bigger strides in fuel economy and infotainment features.

The drivetrain in our 330i test car is nearly without fault. The four-cylinder turbo engine delivers plenty of punch along with smooth, quick transmission shifts. And even with its strong acceleration, the car returned 29 mpg overall, making it the most frugal in its class.

When taking corners, the sedan's handling is agile. Ride quality, however, has taken a step back. The car often feels jittery, with abrupt jolts occasionally coming through the taut suspension.

The cabin has solid-feeling buttons and knobs, high-quality materials, and attractive matte-finish wood. The supportive front seats have firm cushions and ample side bolsters. Though far from roomy, the rear seat is more spacious than in most rivals.

BMW's latest infotainment system has impressive functionality. It requires time to master but responds quickly to inputs. The optional Apple CarPlay even works wirelessly, but Android Auto capability isn't available.

Forward collision warning (FCW) and automatic emergency braking (AEB) with pedestrian detection are standard; blind spot warning (BSW) is optional. Lane keeping assist can be too aggressive, depending on the chosen setting.

COMPACT SEDANS

## Mazda3

A Slick Sedan Loses Driving Verve

74

OVERALL SCORE

ROAD-TEST SCORE 75

**HIGHS** Fit and finish, quiet cabin, braking, fuel economy

**LOWS** Controls, base trim lacks advanced safety features

**POWERTRAIN** 186-hp, 2.5-liter 4-cylinder engine; 6-speed automatic transmission; front-wheel drive

**FUEL** 30 mpg on regular fuel

**PRICE AS TESTED** \$24,115

**THE ALL-NEW MAZDA3** sedan has an improved, elegant, and quiet interior that, along with a refined ride, helps the compact stand out. But these improvements come at the cost of fuel efficiency and a less exciting driving experience.

The 3's interior is on a higher plane than its competitors', including the Honda Civic and Toyota Corolla. It looks and feels upscale, with rich, generously padded surfaces and high-quality trim pieces throughout. But the infotainment system forces drivers to make multiple twists and taps of the rotary controller to complete simple tasks.

It's quiet inside the cabin, and the suspension effectively mutes the impact from bumps and ruts. This

contributes to the feeling that the 3 is more substantial than others in its class.

Our testers appreciated the engine and transmission, which deliver power without hesitation. But this combo's efficiency is a letdown. Our front-wheel-drive car achieved only 30 mpg overall in our tests; it's no longer among the category's top performers.

The new car is also less fun to drive. It's responsive and competent but lacks the engaging handling that has been a hallmark.

The 3 is now available with all-wheel drive; the Subaru Impreza is the only other compact sedan to offer it.

The base sedan isn't available with FCW, AEB, BSW, or other advanced safety systems. They're standard on the hatchback and more expensive trims.



COMPACT HATCHBACKS/WAGONS

## Kia Soul

Quirky, Roomy, and Practical

76

OVERALL SCORE

ROAD-TEST SCORE 76

**HIGHS** Braking, controls, easy to get in and out of, passenger space

**LOWS** Ride, loud engine, base trim lacks advanced safety features

**POWERTRAIN** 147-hp, 2.0-liter 4-cylinder engine; continuously variable transmission; front-wheel drive

**FUEL** 28 mpg on regular fuel

**PRICE AS TESTED** \$25,320

**THE 2020 SOUL** is a compelling alternative to compact sedans and SUVs at an affordable price. Despite some shortcomings, this versatile, boxy hatchback retains its charming blend of practicality and style. Its updates make this Kia even more satisfying.

The Soul's interior is surprisingly roomy for such a small car. Big windows give the cabin an airy feeling and help visibility. But cargo space remains limited. Even with its SUV-like shape, large items will fit only when the rear seats are folded down.

Kia retained the elevated seating position and large doors, which offer easy access in and out.

There's solid around-town performance from the four-cylinder engine, which is aided by a continuously

variable transmission that often mimics the shift feel of a traditional automatic. But there's noticeable engine noise when pushed.

Fuel economy improved by 2 mpg, to 28 mpg overall.

The Soul's handling is quite nimble, and the car remains stable when driven enthusiastically into turns. But the ride is harsh over bumps and on rough roads.

The car is well-equipped for the price. The EX trim we tested is an especially good value; it adds worthwhile extras, such as a power driver's seat, a responsive 10.25-inch touch screen, automatic climate control, and heated front seats. Safety features such as AEB and FCW aren't available on all trims, which is disappointing. We think they should be standard on all vehicles.



SPORTY CARS OVER \$50,000

## BMW Z4

Top-Down Thrill Ride

77

OVERALL SCORE

ROAD-TEST SCORE 86

**HIGHS** Handling, braking, acceleration, seat comfort, fit and finish

**LOWS** Ride, overzealous lane keeping assist, visibility, controls

**POWERTRAIN** 255-hp, 2.0-liter 4-cylinder turbocharged engine; 8-speed automatic transmission; rear-wheel drive

**FUEL** 29 mpg on premium fuel

**PRICE AS TESTED** \$59,195

**THE REDESIGNED BMW Z4** delivers more thrills than its predecessor, but its stiff, choppy ride hurts the overall driving experience.

Even with the base turbocharged four-cylinder engine, the Z4 takes off quickly from a stop and delivers steady power. Its automatic transmission shifts with authority. We also enjoyed the soundtrack from the potent engine and sonorous exhaust, especially in Sport mode.

The roadster's agile handling also raises the fun factor; the two-seater was grippy and balanced on our track. Drivers should note, however, that the steering response is so quick and sensitive that the car may feel twitchy in everyday use.

Sports cars typically have a taut ride, but the Z4's

suspension can be brutal on rough surfaces. This is the car's greatest weakness. Road noise is also a constant, unwelcome companion.

The one-touch power top opens or closes in just 11 seconds and can be operated at speeds up to 31 mph. Typical for a low-slung roadster, getting in and out is a challenge, and there's only modest cargo space.

We like the intimate, nicely furnished cabin. The seats are comfortable and supportive; even our tallest driver said the car fit him well. The feature-rich infotainment system is impressive but takes considerable time to learn.

The Z4 comes standard with FCW and city-speed AEB with pedestrian detection. But blind spot warning and rear cross-traffic warning are optional.

**Ratings** > **Many Flavors** The compact sedan and hatchback categories feature vehicles that are fuel-frugal and fun to drive. If you're feeling flush, check out our sports car choices.

Recommended	Make & Model	Overall Score	Price	Survey Results		Safety	Road-Test Results										
				As tested	Predicted reliability		Owner satisfaction	Crash prevention	Road-test score	Overall mpg	Acceleration 0-60 mph, sec.	Dry braking 60-0 mph, ft.	Avoidance-maneuver speed, mph	Routine handling	Ride	Noise	Seat comfort front/rear
COMPACT SEDANS																	
✓	Subaru Impreza Premium	76	\$23,410	↓	↓	Opt.	85	30	9.5	124	56.0	↑	↑	↑	↓ / ↑	↑	2+2
✓	Mazda3 Select	74	\$24,115	↑	↑	Opt.	75	30	7.7	125	54.0	↑	↑	↑	↑ / ↓	↓	3+1
✓	Honda Civic EX-T	72	\$23,035	↑	↓	Opt.	75	31	7.1	129	54.5	↑	↑	↓	↓ / ↓	↓	3+1
✓	Volkswagen Jetta SE	69	\$23,325	↓	↓	Opt.	78	34	9.0	135	52.0	↑	↑	↑	↑ / ↑	↑	3+2
✓	Kia Forte LXS	68	\$20,165	↓	↓	Std./ ↑	67	34	8.3	131	53.0	↑	↓	↓	↓ / ↓	↑	3+1
✓	Hyundai Elantra SEL	67	\$20,090	↑	↓	Opt.	66	33	9.9	133	54.0	↓	↓	↓	↓ / ↓	↑	3+1
	Nissan Sentra SV	61	\$20,125	↑	↓	Opt.	62	31	10.4	129	55.5	↓	↓	↓	↓ / ↑	↑	3+2
COMPACT HATCHBACKS/WAGONS																	
✓	Kia Soul EX (2.0L)	76	\$25,320	↑	↑	Opt.	76	28	8.8	120	55.0	↑	↓	↓	↑ / ↑	↑	1+1
✓	Hyundai Elantra GT (2.0L)	74	\$23,265	↑	↓	Opt.	79	28	8.7	127	54.5	↑	↓	↓	↑ / ↓	↑	2+2
✓	Toyota C-HR XLE	68	\$23,892	↑	↓	Std./ ↑	64	29	11.2	131	52.5	↑	↓	↓	↓ / ↑	↑	2+0
	Nissan Kicks SV	64	\$21,050	↓	↓	Std./ ↑	64	32	10.5	137	51.5	↓	↓	↓	↓ / ↑	↑	3+0
LUXURY COMPACT SEDANS																	
✓	Audi A4 Premium Plus	80	\$48,890	↑	↑	Std./ ↑	88	27	6.3	135	53.5	↑	↑	↑	↑ / ↓	↓	2+2
✓	BMW 330i xDrive	77	\$52,995	↓	↑	Std./ ↑	86	29	6.4	129	54.0	↑	↓	↑	↑ / ↓	↓	2+2
✓	Buick Regal Essence (2.0T, AWD)	77	\$39,715	↓	↓	Opt.	87	23	7.0	125	55.5	↑	↑	↑	↑ / ↓	↑	3+2
	Mercedes-Benz C300 (4MATIC)	74	\$47,560	↓	↓	Std./ ↑	85	26	6.8	136	55.5	↑	↑	↑	↑ / ↓	↓	2+1
	Genesis G70 Elite (2.0T, AWD)	73	\$43,115	↓	↑	Std./ ↑	74	23	7.8	137	56.5	↑	↑	↑	↑ / ↓	↑	2+0
	Acura TLX SH-AWD	71	\$42,345	↓	↓	Std./ ↑	75	25	6.5	129	55.0	↑	↑	↑	↑ / ↓	↓	2+2
	Infiniti Q50 3.0t Luxe (AWD)	69	\$48,775	↓	↓	Std./ ↑	85	22	5.7	126	56.0	↑	↑	↑	↑ / ↓	↓	2+1
	Kia Stinger Premium (2.0T, AWD)	67	\$40,400	↓	↑	Opt.	75	23	7.5	132	53.5	↑	↓	↑	↑ / ↓	↑	3+0
	Volvo S60 T5 Momentum	61	\$47,110	↓	↑	Std./ ↑	71	26	7.3	125	53.5	↑	↓	↑	↑ / ↓	↓	2+1
	Lexus IS 300 (AWD)	60	\$48,149	↑	↓	Std./ ↑	56	20	6.5	139	53.0	↑	↓	↑	↑ / ↓	↓	2+1
	Alfa Romeo Giulia Ti (AWD)	48	\$48,890	↓	↑	Opt.	70	27	6.7	136	53.0	↑	↑	↑	↑ / ↓	↓	1+2
	Jaguar XE Premium (25t AWD)	39	\$47,378	↓	↓	Opt.	69	25	7.7	133	53.0	↑	↑	↑	↓ / ↓	↓	1+2
SPORTS/SPORTY CARS OVER \$50,000																	
✓	BMW M240i	89	\$50,400	↓	↑	Std./ ↑	98	25	5.2	115	58.5	↑	↓	↑	↑ / ↓	↑	2+0
✓	Porsche 718 Boxster	86	\$69,790	↑	↑	Opt.	95	26	4.4	108	59.0	↑	↓	↓	↑ / NR	↓	1+2
✓	Audi TT 2.0T	78	\$50,600	↑	↑	NA	84	26	6.3	113	58.0	↑	↓	↓	↑ / ↓	↓	1+2
✓	BMW Z4 sDrive 30i	77	\$59,195	↓	↑	Std./ ↑	86	29	6.1	111	56.0	↑	↓	↓	↑ / NR	↓	1+2
	Chevrolet Corvette Stingray 3LT	74	\$73,260	↓	↑	NA	92	20	4.3	107	57.5	↑	↓	↓	↑ / NR	↑	2+1

**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 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](http://CR.org/cars) for complete ratings.

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THIS INDEX LISTS ALL THE ARTICLES PUBLISHED IN THE MAGAZINE OVER THE PAST 12 MONTHS (INCLUDING THIS ISSUE). FOR INDEXES COVERING THE PAST FIVE YEARS, GO TO [CR.ORG/5YEARINDEX](http://CR.ORG/5YEARINDEX).

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Home insurance	Oct 18, 50
Ice cream	
healthier	May 19, 32
time line	May 19, 14
Ice melts	Nov 18, 22
Insect repellents	Jul 19, 54
Insurance	
home	Oct 18, 50

## L-P

Laptops	Dec 18, 46
Lawn mowers and tractors	Jul 19, 40
Marijuana	May 19, 50
Massage	Nov 18, 41
Mattresses	Mar 19, 24
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for side sleepers	Oct 18, 17
Medical billing	Sep 18, 44
surprise bills	Oct 18, 7
Medical tests	Jan 19, 26
Medicare Part D	Jan 19, 46
Melanoma	Jul 19, 14
Microwaves	Dec 18, 20
Money tips	Jan 19, 36
Mosquito repellents	Jul 19, 54
Music streaming services	Sep 18, 14
Net neutrality	Jan 19, 7; Jul 19, 7
Noise	Feb 19, 42
Nuts	Feb 19, 18
nutrition	Feb 19, 20
Pain medication	Oct 18, 48

Pain relief	Jun 19, 24
Passwords	Sep 18, 17
Pasta sauces	Jan 19, 20
Pedestrian safety	Apr 19, 8
Peer-to-peer payments	Nov 18, 18
Pest control time line	Jul 19, 14
Phablets	Dec 18, 17
Pharmacies	Mar 19, 42
Pillows	Mar 19, 34
Printers	
reliability	Jun 19, 15
wireless	Feb 19, 13
Pyramid schemes	May 19, 7

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Ranges	Nov 18, 48
Recall notification reform	Dec 18, 7
Refrigerators, reliability	Oct 18, 13
Retail sales gimmicks	Dec 18, 40
Retirement savings	Jun 19, 7
Robocalls	May 19, 22
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farmers markets	Sep 18, 35
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Televisions	Dec 18, 26
8K	Aug 19, 13
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sound bars	Nov 18, 31
Tick protection	Jul 19, 54
Tipping	Feb 19, 34
Toothpaste ingredients	Jun 19, 16
Trail mix	Jun 19, 17
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devices	May 19, 43
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Vacuum blenders	May 19, 13
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Veggie burgers	Sep 18, 13
Vitamin supplements	Nov 18, 38; Nov 18, 42

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Water, bottled	
arsenic in	Jul 19, 19
Water heaters	Nov 18, 15
Whole-wheat pasta	Jan 19, 20
Windows	May 19, 18
Wireless printers	Feb 19, 13
Yoga	Nov 18, 43

# Grocery Goofs

These silly supermarket slips will have you rolling in the aisles



## Squeaky Clean

If you weren't afraid of the dentist before, you might be after shopping at this store.  
Submitted by Valerie Fitzpatrick, via email

## Salad Daze

Does it count as salad if we eat only the "greens"?  
Submitted by Dan Steinbeck, Canton, MO



## Orange You Glad ...

... that this supermarket has apples?  
Submitted by Sandy Nash, via email



## Fowl Play

It's a funny farm indeed that milks its chickens.  
Submitted by Michael Wassner, Crestview, FL



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