

FEBRUARY 2020

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RATINGS



WORTH THE SPLURGE?

- > Peloton Treadmill
- > Samsung Galaxy Fold
- > Mercedes-Benz CLA

WHY CARS ARE LESS SAFE FOR WOMEN

How did *that* happen?

MAKING A BETTER BURGER

Best & Worst Fast-Food Choices

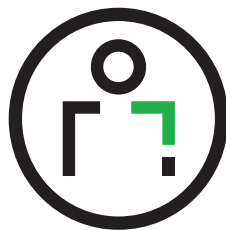
Secrets to Stress-Free Flying
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CR ConsumerReports®

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ABOUT CONSUMER REPORTS

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▲ VERY GOOD ▲ EXCELLENT

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—Sanford Waxer

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The Gender Safety Gap



I'VE DRIVEN THOUSANDS of miles over my lifetime. My first car was a hand-me-down that took me back and forth between home and college, then down to Washington, D.C., for my first job. Then there was my first cross-country adventure, to see the sights and visit friends. Over the years and across the miles, I put my trust in the cars I drove. Like most Americans, I assumed

that automakers were designing and testing cars with my safety in mind. But then I learned that my three brothers can drive on the road with more confidence than I—or any other woman—can. That's because, shockingly, there are no truly accurate adult “female” crash test dummies. When frontal crash tests are performed to determine safety ratings, dummies modeled on the average male are used as a stand-in for all adults, while the closest representation of a female form is just the male dummy scaled down enough that it can double as a 12-year-old child.

If that doesn't alarm you, consider this: Research shows that the odds for women being seriously injured in a frontal crash are 73 percent greater than they are for men, even when both are wearing seat belts. Despite the strides we've made in car safety technology, a crash testing system that fails to account for women's physiology has ignored half of our population, exposing us to greater danger. That's why CR's safety experts at our test track are shining a light on this issue; read more about their findings, beginning on page 52.

Earlier this fall, two members of Congress pushed the government agency that oversees vehicle safety to conduct more research on crash test bias to ensure women's safety. While this process could take decades to implement, the stakes of doing nothing are simply too high. With today's technology, failing to confront such inequality is simply inexcusable. At CR, we will continue to bring this problem out of our country's blind spot—and spark automakers to create a safer, fairer system for everyone.

Marta Tellado

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President and CEO
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Safer Sleep for Infants

WHAT'S AT STAKE

In April 2019, CR released the findings of an investigation into the Fisher-Price Rock 'n Play Sleeper (published in the July 2019 issue of Consumer Reports). The product was designed—without independent safety testing—to soothe infants with acid reflux by enabling them to sleep at an incline. But we highlighted that doing so contradicts medical advice, and we found that the product had been tied to dozens of infant deaths. A government-funded study has since shown that inclined sleepers increase the risk of infant suffocation.

The CR report prompted the recall of all 4.7 million Rock 'n Play Sleepers, and other manufacturers pulled their inclined sleepers from retail shelves as well. Then, in October, the Consumer Product Safety Commission began advising caregivers not to use any infant inclined sleepers and voted to begin the process of banning them altogether.

HOW CR HAS YOUR BACK

Despite all this, CR and other organizations have found that many inclined sleepers remain for sale and in use. And it may take months or longer for a government ban to kick in.

That's why CR continues working to rid the market of these inherently unsafe products. In November, CR president Marta Tellado wrote to nine juvenile product manufacturers, urging them to recall all infant inclined sleepers immediately. We also asked consumers to email the companies with the same request; by Thanksgiving, more than 13,500 had sent some 125,000 messages. Finally, we wrote 13 retailers and online platforms, urging them to

remove the products from shelves and marketplaces. As of Dec. 5, Amazon, Buy Buy Baby, eBay, and Walmart had agreed.

WHAT YOU CAN DO

Sign our petition urging manufacturers to recall all infant inclined sleepers, and sign up to help check if local stores still stock them, at [CR.org/infantsleep0220](https://cr.org/infantsleep0220).

Protecting Personal Data

WHAT'S AT STAKE

The massive 2017 Equifax data breach prompted Congress to pass a law letting consumers place a free security freeze on their credit reports.

That was important because without a freeze, credit bureaus will sell your data to any lender that asks. With a freeze in place, they can't do so without getting

your explicit consent—making it harder for identity thieves to open an account in your name.

Security freezes are optional, however, and consumers must actively set up a freeze at each of the three major bureaus.

HOW CR HAS YOUR BACK

CR believes the system is backward: Consumers should have to opt in before their credit reports are shared, not opt out to keep them private. That's why we're supporting a new bill, the Consumer Credit Control Act, which would make security freezes the default for all credit reports. If passed, credit bureaus would have to get your affirmative consent and verify your identity before giving creditors access to files.

When applying for a loan or credit account, you'd be able to lift the freeze temporarily, generally by creating an online account at the credit bureau websites.

WHAT YOU CAN DO

Go to congress.gov to contact your state's U.S. Senators and ask them to support the Consumer Credit Control Act.

Backing Better Lending Laws

WHAT'S AT STAKE

For decades, CR has warned about so-called predatory lenders. Purporting to offer a lifeline to people desperate to pay bills or cover unexpected expenses, these companies often use deceptive tactics to trap borrowers in an endless cycle of high-interest debt and huge fees. As many as a third of customers end up deeper in debt than when they started.

HOW CR HAS YOUR BACK

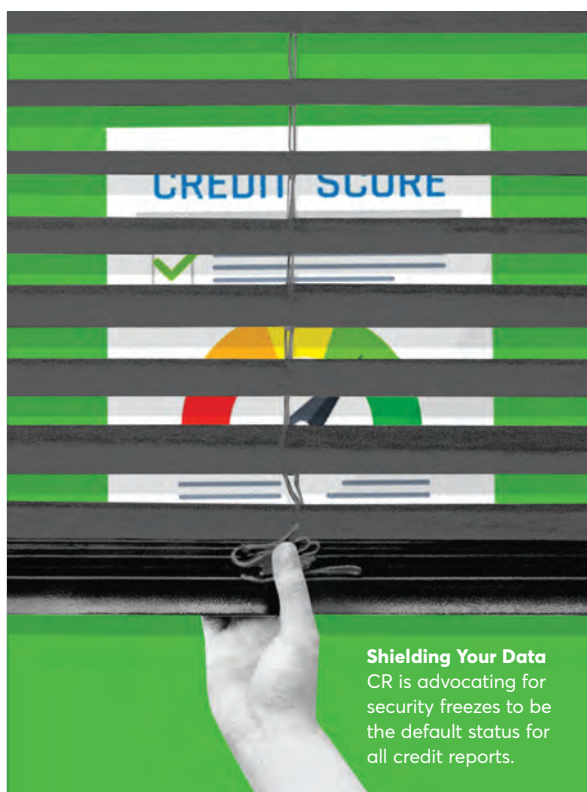
California has long set a legal limit on interest rates for certain loans below \$2,500, but rates on larger loans have gone unchecked. Some lenders in the state charge more than 200 percent a year.

But that loophole will soon close. In October, Gov. Gavin Newsom signed a law that CR supports, the Fair Access to Credit Act. The law caps rates on loans over \$2,500 (at 36 percent plus the federal funds rate, which is currently about 2 percent) and bans several practices, including prepayment penalties, known to ensnare borrowers in revolving debt.

The new law is “a crucial first step toward reining in abusive lenders and promoting fairer financial services,” says CR senior policy counsel Suzanne Martindale, who was on hand when the bill was signed.

WHAT YOU CAN DO

Find your representatives at congress.gov and ask them to support the Veterans and Consumers Fair Credit Act of 2019, which would extend a 36 percent rate cap to all U.S. consumers.



Shielding Your Data
CR is advocating for security freezes to be the default status for all credit reports.



Our column in the December 2019 issue **Building a Better World, Together** discussed how some states are offering more electric vehicle choices to consumers. To join the conversation, go to [CR.org/evs0220](https://www.consumerreports.org/evs0220).

HOW EXACTLY DOES Colorado plan to “require” an automaker to sell a certain type of car? If I walk into a Colorado car dealership, will someone inform me that I must buy a certain kind of car because the manufacturer is required to sell them? Surely this is an absurd way to promote EVs.
—Tom Wiatt, Austin, Texas

EDITOR’S NOTE You won’t be forced to purchase a specific kind of vehicle when you walk into a dealership. The requirement in Colorado (initially around

5 percent) simply increases the EV offerings at your dealership and is expected to be a small enough increase to be easily achievable, because many prospective car buyers in Colorado are interested in buying them. And many electric vehicles, depending how much they are driven, may be able to deliver a lower overall cost of ownership because the driver saves on not only fuel costs but also short-term maintenance costs. To learn about newly proposed fees on EV cars in some states, turn to page 14.

I WAS SURPRISED at the comparisons between the Nissan Leaf Plus and the Hyundai and Kia EVs (Road Test, December 2019). The

Leaf is hardly outclassed by them. I have found my Leaf to be fun to drive, fast, silent, powerful, and very comfortable at highway speeds. Not every driver needs a car that can be driven 600 miles between fueling stops.
—W. Geoffrey Seeley, Washington

PLEASE DO NOT call EVs zero-emission cars! They use electricity that, at this time, is mostly produced by fossil fuel. That being said, I love my Honda Clarity plug-in hybrid.
—J. Michael Rockwell, Cassopolis, MI

EDITOR’S NOTE The “zero” in zero-emissions refers specifically to vehicle tailpipe

emissions, in that, there are none. Though some emissions might be created in the energy-producing process, that’s not always the case, because some homes are solar-powered. It’s also an important distinction because not all emissions are created equal. Tailpipe emissions create localized smog and leave behind a lot of harmful chemicals. To see a map we created that shows how much less greenhouse gas emissions are produced by an EV compared with a gas-powered vehicle in each state, go to [CR.org/evmap0220](https://www.consumerreports.org/evmap0220).



SAFER SUPPLEMENTS

IN “SHOP SMARTER for Supplements” (December 2019), you state that even though increased efforts by the Food and Drug Administration “to enforce the law are a positive step, consumers have a right to expect the FDA to have been doing this all along.” The FDA tried to establish tougher regulations on the supplement industry in the early 1990s, but the supplement industry used its lobbyists and those same consumers to write to their senators and congressional reps telling them to leave the supplement industry alone. Sen. Orrin Hatch and Rep. Bill Richardson killed the FDA’s regulations and handed the supplement industry a big win. Fast-forward to 2015 when the attorney general of New York investigated multiple major retailers for selling many different supplements that did not contain anything except some ground-up vegetables (shown by DNA testing). You



WRITE

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

truly have no idea what you are actually buying or swallowing when you take the majority of these supplements.

—Patrick Carroll, M.D.,
Carmichael, CA

REGARDING THE SIDEBAR in your article about supplements “CR Tests Turmeric and Echinacea”: When my bum knee starts to act up, I put more turmeric and fresh ground pepper on more of my food. Usually by the next day any flare-up has subsided.

—Bob Henry, via *CR.org*



RECALL RISKS

IN YOUR ARTICLE “When Recalls Fail” (December 2019), I have two of the devices you mention as often less tested prior to implantation, leading to what you claim are issues that may develop

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post-surgery. There is no recommended solution other than for the reader to read between the lines and NOT undergo any of the procedures out of fear of device failure.

My pacemaker has worked flawlessly, preventing me from passing out due to a slow heart rate, and my hip replacement has gotten me off the opioids I needed to take prior to surgery for the constant, extreme pain. Given the likelihood of significant monetary damages against any company that would intentionally foist inferior, untested products onto patients, it seems unlikely a company that produces these devices (and surgeons who recommend them) would market a product that would not function as advertised.

—Andrea Harding,
Fountain Valley, CA

EDITOR’S NOTE We’re certainly not saying that consumers should never get a medical device implanted. They can be life-saving. But, alas, cases of faulty and dangerous devices do exist, and in those instances, device manufacturers aren’t always held accountable monetarily. Accordingly, we recommend that consumers ask their surgeons questions, such as: what the device is made of, whether there are any adverse event reports connected to it, why she/he recommends this particular device, and whether there are any other brands you could consider. Also ask your doctor to review with you a patient consent form, which details what the device contains and what the risks are. Make sure you also get a patient device card so that you are able to identify the model and serial number of your implantable device. That way, if there is a recall or safety problem that develops with the device, you know exactly which product you have in your body.



ICY TIRE TIPS

I liked “The Wheel Deal” (December 2019). I noticed that when you rate winter/snow tires, you don’t include studded tires. Why? I live in an area with a lot of rural roads. They are usually kept clear of snow, but ice is a problem.

—Tim Derosa, Mohawk, NY

EDITOR’S NOTE: Winter/snow tire models that can be studded to claw ice can be a smart choice if you live in a state with tough winters—though they can also be noisy and leave scratch marks in driveways. Otherwise, a top-rated studless winter/snow tire should give you the added performance you need in winter weather. Still, winter grip comes with some concessions of potentially shorter treadwear and some compromise of handling and grip on cleared roads. To see a video of our CR experts testing different types of tires braking on ice, go to [CR.org/ice0220](https://www.consumerreports.org/ice0220).



A LAPTOP THAT LASTS

I READ WITH great interest your laptop tests (“The Laptop Has Landed,” December 2019), but I feel you left out a vital review point: upgradability and repairability. With the quest for thinner, lighter laptops, many manufacturers have decided to build products that are neither upgradable nor repairable, thus limiting the usable life span of these machines and consigning them to the landfill much sooner than needed.

—Matt James, Reston, VA

EDITOR’S NOTE Some manufacturers offer laptops that can be upgraded with newer drives. For example, the solid state drive (SSD) inside Microsoft’s latest Surface Laptop 3 and Dell’s latest XPS 15 can be upgraded to a newer SSD when needed, which helps extend the life of the laptop.

CHROMEBOOKS ARE subject to the Google “end of life” policy that entitles only security and OS updates for five to six years, after which the Chromebook is effectively obsolete. Because the end of life policy begins on the date the Chromebook is manufactured, it is possible to buy an older model with only two or three years of effective life at the time of purchase. This information would be useful to consumers in making a choice of laptop types.

—George Thomas,
Lombard, IL

EDITOR’S NOTE Consumers can go to support.google.com/chrome/a/answer/6220366 for a list of Google-approved Chrome devices and their auto update expiration dates.

What We're Testing in Our Labs ...

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

Home Speakers Under \$300

WE TESTED: 17 wireless and Bluetooth models
WE TEST FOR: Sound quality, including the ability to reproduce fine sonic detail; ease of use; and versatility of features offered.

ABOUT THE SCORES:

Median: 60
Range: 38-73

Superior Sound Quality
Edifier R2000DB, Bluetooth
\$250 for the pair



Retro Look With LCD Screen
Fluance Fi50, Bluetooth
\$130



Sonos-Compatible Bargain
Ikea Symfonisk Bookshelf,
WiFi \$100



Flooring

WE TESTED: 63 products
WE TEST FOR: Resistance to foot traffic, scratches, and denting; appearance after more than 300 hours of sunlight; and staining from common household substances.

ABOUT THE SCORES:

Median: 58
Range: 28-94

Best Overall Laminate
Pergo Outlast+ Vintage
Pewter Oak LF000848
(Home Depot), \$3 per sq. ft.



Hard-to-Dent Vinyl
Armstrong Pryzm Elements
of Heritage Vintage Multi
PC020, \$5.30 per sq. ft.



Pretty in Porcelain
Style Selections Natural
Timber Ash 553878 (Lowe's),
\$4 per sq. ft.



Ask Our Experts

Would real wood flooring be best for a high-traffic area in my house?



WHEN FACED WITH the abrasion machine in our surface wear tests, most of the solid wood and engineered wood products receive Good or Fair results. “Laminate and vinyl products are generally made of tougher stuff,” says CR tester Joan Muratore. Our top-performing products get Excellent ratings not just for resisting foot traffic but also stains and sunlight. (The Pergo above offers a limited lifetime warranty that it won’t wear or fade.) Porcelain is also tough but more expensive and trickier to install. Worried that lower-cost laminate and vinyl will look fake? Our experts say it helps to mix up planks from different boxes as you lay them down to break up a repetitive pattern.

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).

Slow Cookers

WE TESTED: 17 models
WE TEST FOR: How well it cooked beef stew on high and low settings; convenience, including clarity of controls and ease of programming; and more.

ABOUT THE SCORES:
 Median: 71
 Range: 54-87

Best All-Around Meal Maker
 Hamilton Beach Temp Tracker 33866 6 Qt.
 \$70

87
 OVERALL SCORE



Nonstick Space-Saver
 Calphalon Digital Sauté SCCLD1 (5.3 qt.)
 \$100

78
 OVERALL SCORE



Largest Capacity
 Elite Platinum MST-900D (8.5 qt.)
 \$60

72
 OVERALL SCORE



Big Screen TVs Under \$1,200

WE TESTED: 44 models (60" and larger)
WE TEST FOR: HD picture quality and Ultra HD performance, viewing angle, sound quality, motion blur, versatility, and more.

ABOUT THE SCORES:
 Median: 69
 Range: 45-81

Great HDR & Most Reliable Brand
 Sony XBR-65X900F \$1,100

81
 OVERALL SCORE



Wide Viewing Angle
 LG 65SM8600AUA
 \$770

78
 OVERALL SCORE



A Flat-Out Deal
 Samsung UN65RU710D (BJ's)
 \$630

73
 OVERALL SCORE



Energy-Efficient Washers

WE TESTED: 94 models
WE TEST FOR: Energy efficiency; washing performance, including how well a normal cycle cleans a load of mixed cotton items; water efficiency; and more.

ABOUT THE SCORES:
 Median: 70
 Range: 32-87

Front-Loader Perfection
 LG WM3500CW (4.5 cu. ft.)
 \$700

86
 OVERALL SCORE



Most Efficient HE Top-Loader
 Kenmore Elite 31433 (5 cu. ft.)
 \$900

71
 OVERALL SCORE



Best Top-Load Agitator
 Maytag MVWB965HC (6 cu. ft.)
 \$1,280

70
 OVERALL SCORE



Energy Star Certified Electric Dryers

WE TESTED: 36 models
WE TEST FOR: Drying performance with a mix of fabrics and load sizes; ease of use, including controls; noise; and more.

ABOUT THE SCORES:
 Median: 79
 Range: 54-91

Tops Overall
 LG DLEX7600WE (7.3 cu. ft.)
 \$945

91
 OVERALL SCORE



Mega Capacity
 Maytag MEDB955FW (9.2 cu. ft.)
 \$1,185

88
 OVERALL SCORE



Strong Performance for Less
 Kenmore 81392 (7.3 cu. ft.)
 \$680

83
 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 Vacuums & More



What's the best cold medicine?

Drugstore shelves are lined with over-the-counter medications meant to ease cold and flu miseries: fever, headache, congestion, runny nose, body aches, cough, and more. But don't assume more is better.

Why? Multisymptom remedies contain several active ingredients, and the more active ingredients a remedy has, the more likely it is you'll be exposed to unnecessary side effects, says Leigh Ann Mike, Pharm.D., clinical associate professor of pharmacy at the University of Washington in Seattle. And unless you read the label carefully, you might not realize what's in it.

For example, many multisymptom products contain acetaminophen, the active ingredient in Tylenol. If you take acetaminophen in addition to a cold remedy that also contains it, you could get more than is

safe—4,000 mg per day or more can lead to liver damage.

CR recommends that you opt for single-ingredient products instead. Try acetaminophen or ibuprofen to subdue body aches and sore throats, and a separate medicine for other symptoms, such as cough or congestion. If you can't find the right items for all your symptoms, use a combination drug that targets only the symptoms you have.

Natural remedies can help, too. Gargle salt water for a sore throat, take a steamy shower to ease congestion, and remember that chicken soup's power is not a myth: The warmth soothes your sinuses.

Why does my flour bag warn me to "Cook Before Sneaking a Taste"?

It may seem odd, but people eat flour raw—in batter or dough—and get sick from it more often than you might think. In the past four years, two food-poisoning outbreaks have been linked to flour contaminated with toxic strains of *E. coli* bacteria. In 2019, at least six brands of flour were recalled for potential or actual bacterial contamination.

Like other crops, wheat is

susceptible to contamination with *E. coli* because it may come into contact with cow manure on fields. Though flour is processed—it's ground, or "milled," from wheat and sometimes bleached—that doesn't kill any bacteria that may be present. Only high temperatures do that.

"When you eat raw dough or batter—either homemade or from a mix—you're consuming raw flour and so you risk consuming harmful bacteria," says Sana Mujahid, Ph.D., manager of food safety research and testing at CR. (Products meant to be eaten raw, such as cookie-dough ice cream, are treated to kill bacteria.)

And be careful while using it. Flour is messy "and can quickly contaminate kitchen counters, equipment, or other foods you have out," Mujahid says. Treat it as you would any food that can be a cross-contaminant: Use warm, soapy water to wash all utensils and dishes that come into contact with it, and use a damp paper towel to wipe up excess flour—then throw away the towel and wash your hands.

What's the best way to wash and dry my gym clothes?

Clothing that wicks away sweat is typically made of synthetic, nonporous fabrics that don't

absorb sweat; that's how it keeps you dry as you exercise. "The downside is that while your sweat evaporates, it leaves odor behind," says Rico de Paz, a CR chemist who tests laundry detergents. "Synthetic fibers act like a magnet for odor-causing chemicals in sweat, making them difficult to wash out."

Of the chemicals in sweat, sebum, or body oil, is very tough to remove. Just 13 of the 40 laundry detergents in CR's tests earn an Excellent score for removing it. (Try Tide Plus Ultra Stain Release; All-Access and Digital members can see our full ratings at [CR.org/wash0220](https://www.consumerreports.org/wash0220).)

Try to wash synthetics immediately after a workout—and turn them inside out so that detergent can easily get at the soils. Choose cold water on a gentle cycle to help prevent fading and preserve the fit. (Hot water can damage the fibers that make them stretchy.) And don't put them in with items made of heavy fabrics, such as jeans; the friction can wear down more delicate synthetics.

To clean extra stinky items, don't use more detergent than the directions call for: "Excess detergent can cause residue to stay in your clothes and trap odors," de Paz says. Instead, use an extra rinse cycle. And never use fabric softener; it can clog the fabric pores, inhibiting its wicking capabilities. Most experts also say to air-dry, and lay clothes flat, to protect the shape and fit.



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

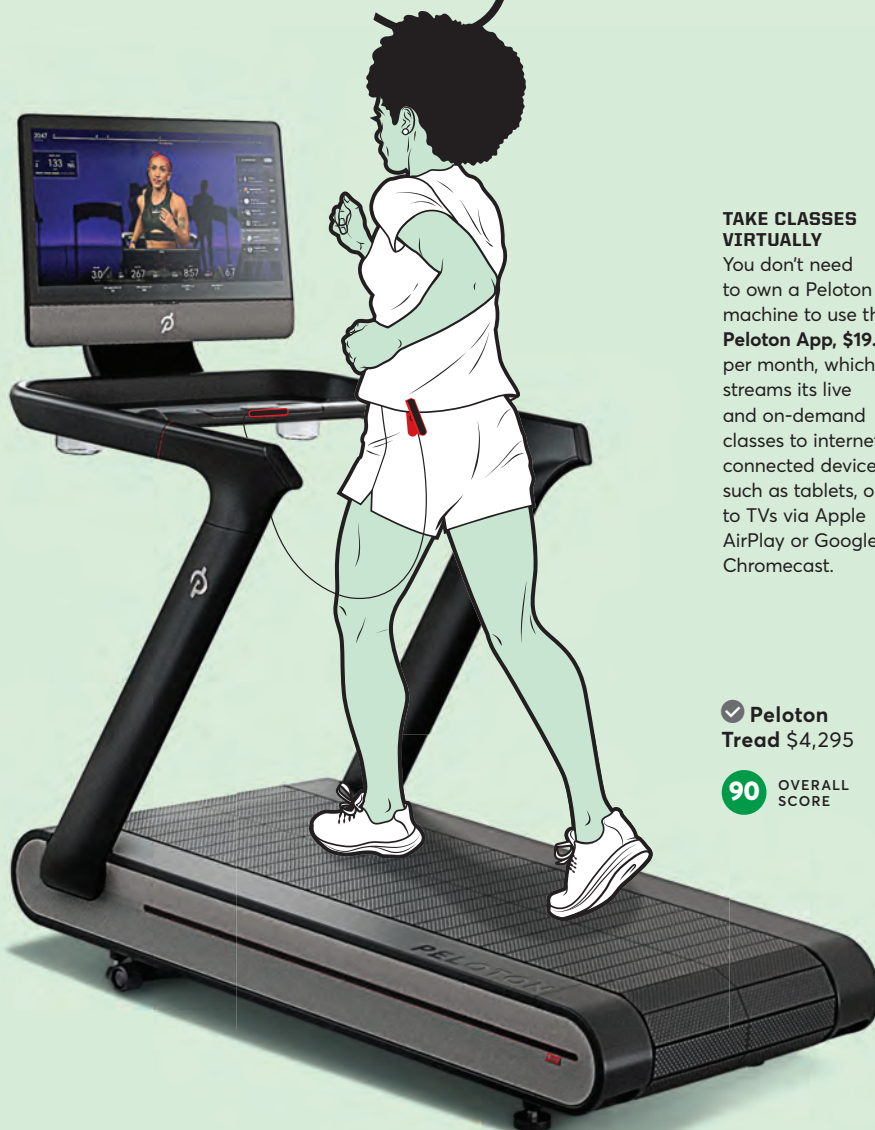
IN THE KNOW

NO-EXCUSE WORKOUT OPTIONS

THE RIGHT EQUIPMENT can give you a leg up on your fitness goals this year. And if you can invest in a top-of-the-line model, the **Peloton Tread** outpaces every other treadmill currently in our ratings, says Peter Anzalone, CR's fitness equipment tester.

Designed to work with a required \$39 monthly digital class subscription, its vibrant 32-inch touch screen with built-in sound system displays a variety of workouts, including scenic runs or on-demand or live video classes led by prominent trainers, overlaid with your statistics and a list of class members. (You can see the trainer but not each other.) The machine also uses dials, not buttons, for easy speed and incline adjustments.

The running surface is made of firm rubberized slats, making it feel more cushioned underfoot to some testers than a typical treadmill deck.



TAKE CLASSES VIRTUALLY

You don't need to own a Peloton machine to use the **Peloton App, \$19.49** per month, which streams its live and on-demand classes to internet-connected devices, such as tablets, or to TVs via Apple AirPlay or Google Chromecast.

✓ **Peloton
Tread \$4,295**

90 OVERALL
SCORE

TWO LESS- EXPENSIVE EXERCISE OPTIONS:



A FOLDING TREADMILL

We recommend the folding **Schwinn 830, \$900**, which has a large console with ample storage for water and devices, as well as a backlit LCD that offers custom programs and profiles that can track workout history for multiple users.



AN ALTERNATIVE MOTION MACHINE

Need a machine that's easy on your knees? The **NordicTrack FreeStride FS7i, \$1,999**, lets you control the length of your stride to easily transition between elliptical-like strides or stepping. This low-impact motion is also relatively quiet.

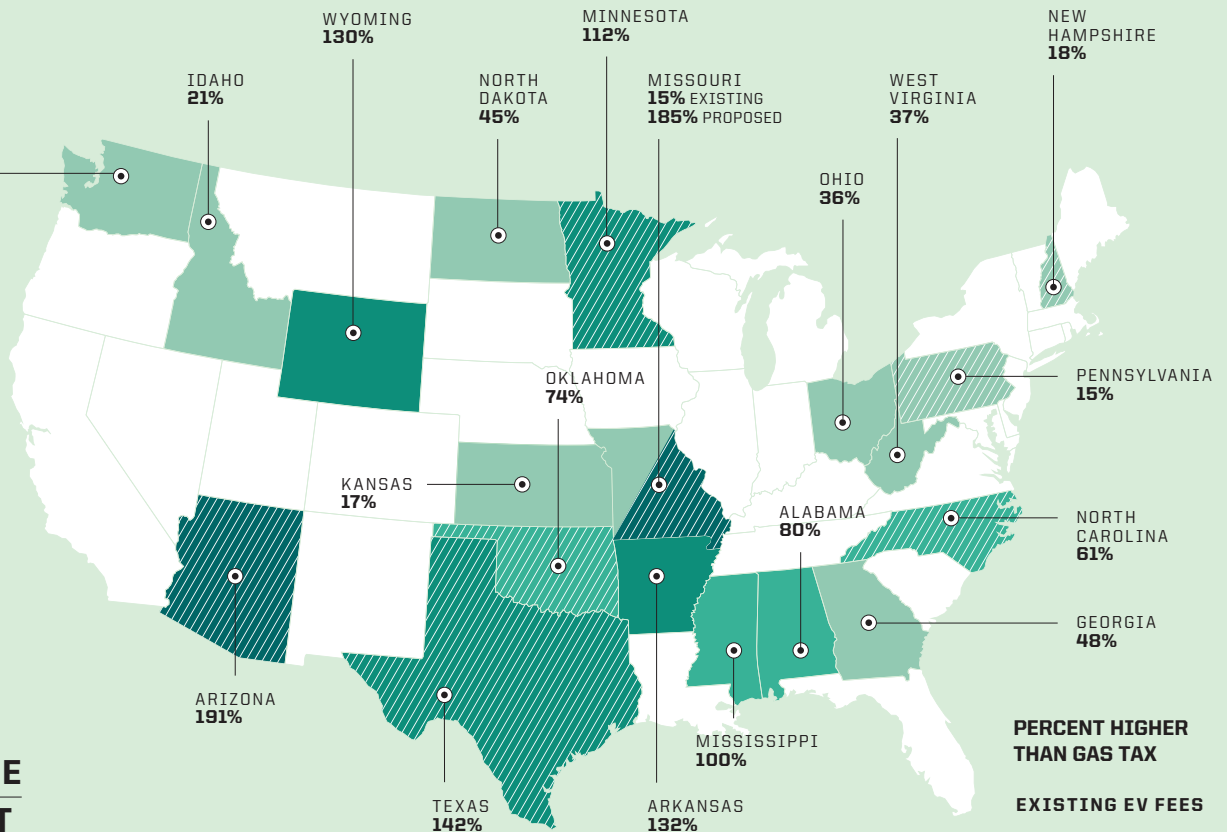
MAP OF THE MONTH

WHICH STATES HAVE THE HIGHEST EV FEES?

GAS TAXES, which fund about 30 percent of transportation spending in the U.S., don't apply to electric-vehicle owners for a simple reason: EVs don't use gas. As the number of EVs in use rises, many legislatures are considering extra fees to make

sure all vehicle owners help pay for road maintenance. But in the 19 states shown above, existing and proposed EV fees are rising to a level much higher than the annual gas tax would be for the average new car in 2020 in those same states.

"EVs can still save drivers money, but people should be able to choose a vehicle that's safe, reliable, and better for the environment without being punished with higher fees," says Shannon Baker-Branstetter, manager of cars and energy policy at CR.



PERCENT HIGHER THAN GAS TAX

- EXISTING EV FEES**
- 1-50% higher
 - 51-100% higher
 - 101-150% higher
 - 151-200% higher

PROPOSED EV FEES

Our map was made in partnership with Resource Media.

CR Time Traveler AIR TRAVEL



1929 Delta operates its first passenger flight, from Dallas to Jackson, Miss.

1941 A well-made suitcase with top-grain leather should cost about \$10, CR advises. Any less and you may get split or inferior-grade leather.

1957 Our testers roll women's "weekend cases" and men's two-suiters down a 25-foot-long inclined track until they hit a rigid bumper, then assess damage. The most common failures are bent closure rims, as well as open latches.



1966 Our testers line up suitcases to be weighed and measured before testing. We say the handle of a loaded suitcase should withstand 25,000 pickups, but some break well before that.



1965 Hampered by government regulation, airlines compete on frills, not fares: Braniff's Pucci-clad flight attendants change uniforms three times during the flight to entice passengers to fly.

PRODUCT SPOTLIGHT

WHAT'S SO HOT ABOUT ELECTRIC KETTLES?

ELECTRIC KETTLES MAY bring to mind tea and scones in a faraway English cottage, but sales right here in the U.S. have been heating up: An estimated 3.9 million electric kettles were sold last year, which is about 1.7 million more than in 2010. And you can find them for as little as \$15 or \$20. Even so—should you make room for yet another small appliance on your kitchen countertop?

What it really boils down to is convenience, says Cindy Fisher, the lead tester for this project. An electric kettle can be handy if you make a lot of tea—and want it quickly. The fastest kettles in our tests are able to boil a liter of water (slightly more than 4 cups) in about 4 minutes. That's faster than boiling water in a 1,200-watt microwave (which takes

6 minutes and 45 seconds) but only a bit faster than boiling that same amount of water in a pot on a gas range (which takes between 4½ and roughly 5 minutes).

Still, consumers may like that an electric kettle will shut off automatically once it reaches a boil—and then keep the water heated. The models we tested kept boiled water warm for at least 35 minutes after shutting off; the Secura, shown at right, kept its contents toasty for 75 minutes, the longest in our ratings.

These kettles are also useful for more than a daily cup of tea—you can use its hot water to make anything from hot cocoa to ramen. The one small hassle? Many models have a scale filter, which needs to be cleaned periodically.

TOP KETTLE

✓ **Secura**
The Original
Stainless Steel
Electric Kettle
SWK-1701DB
\$30

89 OVERALL
SCORE



PRESET TEMPS BY TEA TYPE & LONG WARRANTY

✓ **Cuisinart**
PerfectTemp
Cordless
Electric Kettle
CPK-17 \$100

81 OVERALL
SCORE

EASIEST TO CLEAN

✓ **Oxo** Cordless
Glass Electric
Kettle \$80

80 OVERALL
SCORE

NO-FRILLS BARGAIN

✓ **Ovente**
Electric Kettle
KP72 \$15

71 OVERALL
SCORE



1971 Southwest Airlines starts one of the nation's first low-fare airlines, with discount fares as low as \$10 one-way.

1988 Delta has the largest market share of any national airline, at 13.5 percent, we report, followed closely by United, at 13.2 percent.



2016 Rampant mergers leave four airlines controlling 80 percent of the market, CR reports, down from 11 in 1983.

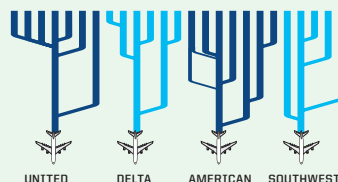


✓ **Briggs & Riley**
Carry-Ons

92 READER
SCORE



1991 Air travel "has truly become public transportation," CR announces. U.S. airlines now carry more than 423 million domestic passengers—a 67 percent increase from 1978.



2020 In our latest reader survey of luggage brands (turn to page 42), Briggs & Riley is tops for both carry-on and checked bags.

FOOD IQ™

BEST ANTIBIOTICS POLICIES AT FAST-FOOD CHAINS

WHEN YOU BUY a fast-food burger or roast beef sandwich, chances are it's made with meat from cattle given antibiotics they don't need. The annual fast-food report, issued by CR and five other consumer and health groups, grades the largest chain restaurants in the U.S. on their policies to limit antibiotics use in the meat they source (beef, poultry, and pork), as well as the implementation and transparency of those policies.

"In the five years we've been issuing the report, we've seen more and more chains agree to serve only chicken raised without medically important antibiotics," says Meg Bohne, associate director, campaigns, at CR. The majority of the top chains (17 out of 25) now have policies in place to limit

antibiotics use in the chicken they serve. "But progress on beef has been disappointingly slow."

The beef scorecard, below, rates chain restaurants according to their antibiotics policies for the beef they serve. Fifteen restaurants received a grade of F for having no policy or plan to reduce the use of antibiotics in their beef supply. Just two restaurants, Chipotle and Panera Bread, got A grades for sourcing beef raised without the routine use of antibiotic drugs.

McDonald's, one of the largest beef purchasers in the world, saw its grade rise from an F the prior year to a C, thanks to its December 2018 announcement of a comprehensive antibiotics-use policy that commits to reducing the use of medically important antibiotics in

its global beef supply chain. This represents the first comprehensive antibiotics reduction policy created by a major U.S. burger chain.

The practice of giving antibiotics to food animals to prevent, rather than treat, illnesses is a main contributor to antibiotic resistance; these drugs are becoming less effective at destroying the bacteria that cause potentially deadly illnesses, such as the superbug MRSA. According to an expert estimate, 160,000 deaths in the U.S. were caused by antibiotic-resistant infections in 2010, placing these infections as the fourth-leading cause of death in the U.S., after heart disease, cancer, and all infections.

For more details on the reports for beef, pork, and poultry, go to [CR.org/chainreaction0220](https://www.chainreaction0220.org/).



SAFETY UPDATE

A SMARTER WAY TO DETECT RADON

A HEALTH HAZARD that's undetectable by human senses, radon gas can creep into a home through the tiniest of cracks. Protracted exposure to radon is thought to be the leading cause of lung cancer in non-smokers. Elevated levels of radon have been found in homes in all 50 states.

Until now, homeowners often used short-term kits, which take a snapshot of radon levels in one spot in your home and then get mailed to a lab for analysis. But radon levels can fluctuate. With that in mind, CR recently tested the new smart electronic radon detector called Wave.

The device measures radon levels, allowing users to see real-time data (by waving your hand in front of it), as well as charted hourly levels over time. It's also easy to move to check all parts of your home. The app will show users when radon levels are too high (though no level of radon is considered "safe"). The Wave is more accurate than the 48-hour exposure kits we tested. And though it's not cheaper than a one-time test, it's more cost-effective—and certainly easier—to perform on a regular basis.

2019 Chain Reaction V Beef Scorecard

A	Chipotle
A-	Panera Bread
C	McDonald's, Subway
D+	Wendy's
D	Taco Bell
F	Starbucks, Five King, Dunkin', Pizza Hut, Sonic, Applebee's, Olive Garden, Buffalo Wild Wings, Little Caesars, Arby's, DQ, Jack-in-the-Box, Chili's, IHOP, Panda Express

HOW DOES IT WORK?

SAMSUNG GALAXY FOLD

SINCE THE PRICEY Galaxy Fold was first announced, questions have been swirling about how its bendy new technology works—and how well it performs. So we bought a few and gave them a rigorous workup in our smartphone lab.

Most modern phone screens, whether LCD or OLED, are housed underneath

a single sheet of tough glass. But the Fold's interior QXGA+ Dynamic AMOLED screen is made from tissue-thin layers of a unique polymer material, which Samsung says is flexible, and thus able to perform its signature task of folding.

When closed, you can use the phone's outer screen like a traditional (if narrow and heavy) phone. But unfolding the phone, which opens like a book, reveals a second, hidden 7.3-inch interior touch screen that you can use instead. Videos stretch from one side to the other in a sweeping span that's far more

dramatic and tablet-like than the full-screen modes of even the largest traditional smartphones.

Overall, our testers found that the display quality was very good—crisp with a resolution around 300 dpi—though not as sharp as some other phones at the top of our ratings, such as the Apple iPhone 11 Pro.

To get a better idea of how much abuse the flexible inner screen can take, we folded and unfolded the phone more than 37,000 times. It passed with no noticeable blemishes, new creases, or other defects. We also tumble tested the Fold—dropping

it 100 times—in both the open and closed-screen positions, with mixed results. The back glass on the closed phone broke between 50 and 100 drops, but when opened fully, the phone made it through all 100 drops with just minor scratches.

Though it does well overall in our ratings, Richard Fisco, CR's head of electronics testing, advises that you hold off on getting one: "This phone showcases impressive new technology, but given its fragility and price, may not be a practical choice for most consumers yet."

OUTER SCREEN

When folded, the front panel has a narrow 4.6-inch touch screen that you can use with one hand, but it's better for notifications than typing an email.

BODY

The Fold isn't dust- or water-resistant, unlike many other phones on the market. A very thin case (not shown) comes with it. We don't know how much protection, if any, the case provides, but given the phone's fragility in our drop tests, it's worth using.

HINGE

The spine contains a concealed hinge, made with gears that are similar to a timepiece's.



AMOLED DISPLAY

The Fold's display is made from thin layers of a flexible polymer material. Our testers could see a crease in the middle, but only when the screen was completely black. You can feel it, though, by running a finger over it. Our continued testing will see whether the crease gets more noticeable as the phone ages.

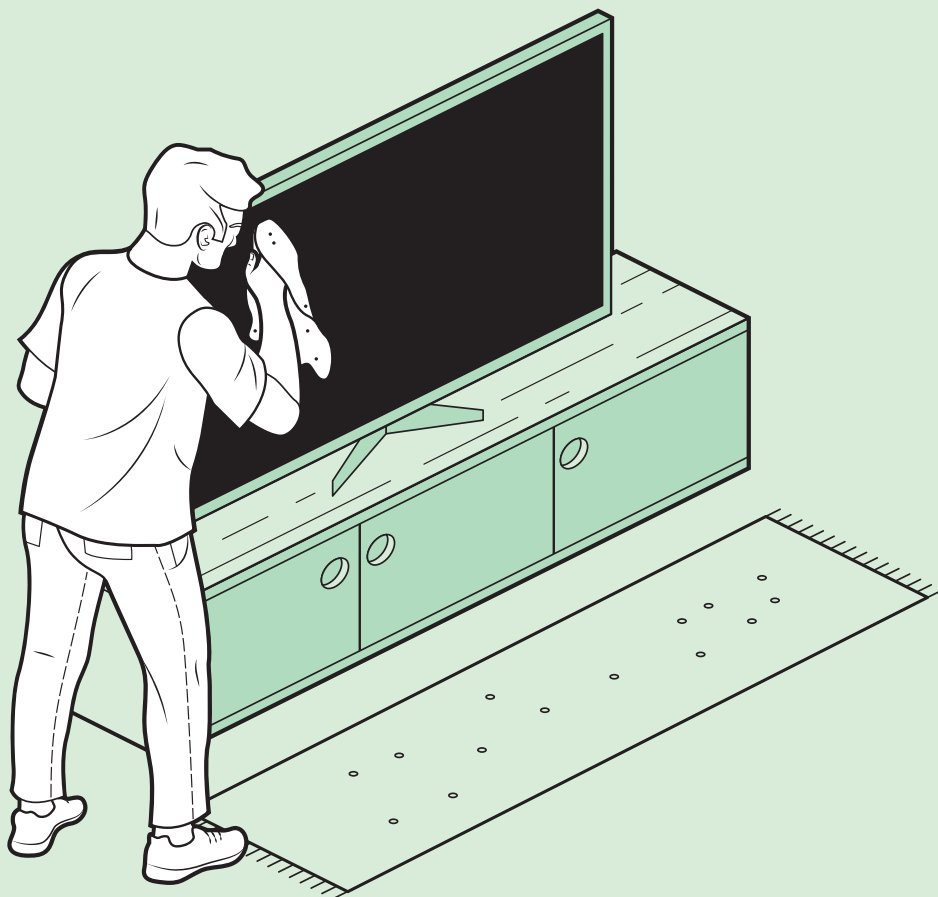
TWO BATTERIES

Two batteries—one on either side—power the Fold. It has better-than-average battery life, lasting 31 hours, and can be wirelessly charged.

HOW TO CLEAN
PRACTICALLY
ANYTHING™

YOUR FLAT- SCREEN TV

Having people over to watch the Super Bowl? You'll want your TV to be fingerprint- and dust-free. Newer LCD (which use LED lights) and OLED TVs are sensitive and need to be cleaned carefully to keep the screen from getting scratched or damaged. (If you still have a plasma TV, it may have an anti-glare coating over the glass and so should be treated like an LCD TV.) Fortunately, though, cleaning these big screens doesn't require any special chemicals—never use alcohol or ammonia, found in cleaners such as Windex—or special kits, which can cost \$15 to \$20 for a solution that's probably mostly water. Instead, buy a microfiber cloth and use our advice below.



1. TURN OFF THE TV—or even unplug it—prior to cleaning, says Claudio Ciacci, who heads CR's TV testing. "In addition to it being safer for the set, it's usually easier to see dirt or finger smudges when the screen is dark," he says.

2. USE A DRY, SOFT CLOTH. Paper towels or tissue fibers can do damage to an LCD screen. "Your best bet is to use a soft, anti-static microfiber cloth—the kind used to clean eyeglasses and

camera lenses—and wipe in a circular motion," says John Walsh, who cleans more than 250 TVs a year before photographing them in his role as a CR photographer. "Gently wipe the screen with the dry cloth to remove

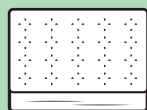
dust, but don't press too hard," he says.

3. TACKLE STAINS. If there are hard-to-remove stains, dampen the cloth slightly with distilled water, and gently clean the screen. Don't spray water directly onto the

screen, which could cause a shock or component failure if it drips or seeps into the inner workings of the set. Or try using a solution of very mild dish soap highly diluted with water, once again applied to the cloth and not to the TV

itself. (As a guideline for how much soap to use, manufacturers recommend a 100:1 ratio of water to soap. Translation: Use very little soap!) Go over the screen one more time with a dry cloth to remove any swirls or streaks.

FEBRUARY
IS THE
BEST TIME
TO BUY ...



MATTRESSES



TABLETS



SNOW
BLOWERS



RECALLS

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



MAZDA6

MAZDA VEHICLES

Mazda is recalling 116,932 vehicles: certain 2003-2008 and 2009-2012 Mazda6 sedans, 2004 RX-8 sports cars, 2004-2005 MPV minivans, 2006-2007 Mazdaspeed6 sedans, and 2007-2012 CX-7 and CX-9 SUVs. The passenger-front airbags from Takata were previously replaced with airbags lacking moisture-preventing desiccant as an interim fix, because the original Takata airbag could propel sharp metal fragments on deployment, potentially striking the driver or other occupants and resulting in serious injury or death. Now, airbags with the proper desiccant to avoid such problems are available for a permanent repair. The Mazda numbers for these recalls are 2618F and 1317F.

What to do: Owners may call Mazda customer service at 800-222-5500, option 4. The dealership will replace the airbag inflator with an improved part at no charge.

MERCEDES-BENZ VEHICLES

Mercedes-Benz is recalling 24,226 vehicles in the U.S. due to faulty software meant to identify a vehicle's location for a built-in system that can summon emergency services. Starting in November 2019, the software installed could send emergency services the wrong date and time based on GPS satellite data, and could even prevent emergency responders

from determining the vehicle's location altogether. The recall includes cars and SUVs from the 2013-2017 model years, including certain: CLA, GLA, M-Class/GLE, GL/GLS, G-Class, SLK/SLC, AMG GT, GLK/GLC, C-Class, E-Class, S-Class, CLS, SL, and B-Class.

What to do: Affected owners were expected to be notified of this recall in December 2019 and should receive an over-the-air software update. If a vehicle has not received the correct software via a remote over-the-air update, then a Mercedes-Benz dealership can update it at its shop. But given the complexities in identifying the specific vehicles included, we encourage owners to use a VIN look-up tool (like nhtsa.gov/recalls), call Mercedes-Benz customer service at 800-367-6372, or visit their local dealership.

STANLEY HAMMERS

Stanley Black & Decker is recalling about 211,000 Stanley brand 16-ounce wooden-handle nailing hammers because the molded grip can come loose, posing an injury hazard. The hammers were sold at Walmart stores from July 2018 through August 2019 for about \$6.

What to do: Stop using the hammer and return it to Walmart for a refund in the form of a Walmart gift card for the purchase

price. You can call Stanley at 866-215-1132 or go to stanleytools.com for details.

QUEST PRODUCTS BURN PADS

Quest Products is recalling about 153,000 Alocane Emergency Burn Pads because the packaging is not child-resistant, as required by the Poison Prevention Packaging Act. The pads contain lidocaine, posing a risk of poisoning to young children if they were to put the pad in their mouth. The pads were sold at pharmacies nationwide and online at amazon.com, homedepot.com, overstock.com, myqueststore.com, and alocane.com from March 2018 through June 2019 for about \$9.

What to do: Keep the pads out of the reach of children. Call Quest Products at 800-650-0113 or go to alocane.com to return them for a free Alocane Emergency Burn Gel 2.5-ounce child-resistant tube or a full refund.

DEWALT UTILITY BARS

DeWalt is recalling about 145,000 multifunctional utility bars because the bar can break while it's being used for prying, posing an injury hazard. The bars were sold at Home Depot and other hardware stores nationwide and online from December 2015 through March 2019 for \$30 to \$40.

What to do: Stop using the utility bar and call DeWalt at 866-937-9805 or go to dewalt.com, click on "Service and Support," then "Safety Recall Notice" for details.

FIT FOR LIFE RESISTANCE BANDS

Fit for Life is recalling about 95,000 Spri ultra heavy resistance bands because they can separate from the handle and strike you. The

bands were sold at Walmart stores nationwide and online at walmart.com from August 2018 through July 2019 for about \$10.

What to do: Stop using the band and call Fit for Life at 800-222-7774 or go to spri.com for details and to get a refund in the form of a spri.com store credit for the amount equal to the purchase price or a free replacement resistance band.

GRACE DIGITAL SPEAKERS

Grace Digital is recalling about 88,000 EcoXGear EcoBoulder Bluetooth speakers because the battery can become overcharged and burst, posing an impact hazard. The speakers were sold at Costco stores from October 2016 to January 2017, and at Academy Sports, Cabela's, Home Depot, and Best Buy stores and online at amazon.com from January 2018 through December 2018 for about \$180.

What to do: Stop using the speakers and contact EcoXGear at 800-903-9664 or go to ecoxgear.com for details and to get a free battery replacement kit.

STIHL MOWING HEADS

Stihl is recalling about 73,000 PolyCut mowing heads because the bolts connecting the plastic blades and holding the mowing head together can come loose and the mowing head can come apart, posing a risk of injury. The mowing heads were sold at authorized Stihl servicing dealers from July 2018 through July 2019 for about \$30 for the 27-3 model and about \$40 for the 47-3 model.

What to do: Stop using the mowing head and take it to an authorized Stihl dealer for a full refund. Call Stihl at 800-610-6677 or go to stihlusa.com for details.

Infants' risk of fatal injury in a crash is 71% lower when using a car seat.

Percentage of car/booster seats that are misused:

Forward-facing

61%

Rear-facing infant

49%

Rear-facing convertible

44%

Source: National Highway Traffic Safety Administration.

PRODUCT UPDATE

THE LATEST RATINGS FROM OUR LABS

Get Smart About Car Seats

Recent recalls of infant inclined sleepers have some parents worried that babies falling asleep in car seats might be dangerous, too. Our experts explain.

by Rachel Rabkin
Peachman

CR
Consumer
Reports

✓ Chicco
KeyFit 30
Infant Car
Seat \$200

84

OVERALL
SCORE



INSIDE
CR'S LABS

Jen Stockburger, CR's director of car-seat testing, installs an infant seat at the proper recline angle.

MORE THAN 5 MILLION infant inclined sleepers, including the Fisher-Price Rock 'n Play Sleeper, were recalled last spring after a Consumer Reports investigation linked them to dozens of deaths. (See Building a Better World, Together, on page 7, for more on our efforts to get all inclined sleepers—now associated with 73 deaths—banned.) That prompted some CR readers to ask whether car seats pose a similar risk, because many also have an incline.

Sleeping on an incline does pose risks, as it can cause an infant's head to tilt forward, chin to chest, and compress the airway, increasing the risk of suffocation, says Emily A. Thomas, Ph.D., an automotive safety engineer at CR and an expert in pediatric biomechanics. That can happen because infants don't have the neck strength to keep their head up on their own. "But there are crucial differences between inclined sleepers and car seats," Thomas says.

First, infant car seats—which are all rear-facing, the safest position for a baby in a crash—have a five-point harness system. The snug harness helps keep infants upright and from moving into a position that could block their airway. "Infant car seats have been designed and tested not only to protect your baby in a collision but also to ensure that if your baby does fall asleep in the seat, the risks of slumping down, chin to chest, and blocking airflow, are low," Thomas says.

Second, the incline angle in rear-facing car seats has been tested extensively by car seat manufacturers and government regulators, which was not the case with inclined sleepers such as the Rock 'n Play Sleeper. The design of car seats balances protection of a baby's head and spine in a collision with a recline angle that keeps the head from falling forward, Thomas says.

And last, unlike the Rock 'n Play Sleeper and similar products, car



WHAT TO KNOW BEFORE YOU BUY

KNOW YOUR CHILD Keep track of your child's height and weight. These factors, along with age, will determine the type of car seat you need. Health problems that affect muscle control or breathing, such as cerebral palsy and muscular dystrophy, can also affect your choice.

KNOW YOUR CAR Check the child-safety sections of your vehicle owner's manual, and study up on relevant features such as the car's seat belt and anchoring hardware that allow you to attach a car seat to the vehicle. That anchoring system is known as LATCH (Lower Anchors and Tethers for Children).

KNOW YOUR STORES Choose a retailer that accepts returns. Some car seats are not compatible with the backseat cushion angle or seat belt placement in some cars, so you may find that you need to return your car seat if it isn't a good fit for your car.

KNOW YOUR SEAT'S EXPIRATION DATE Yes, car seats have one, typically between six and 10 years. Do not use an expired car seat, because it might not provide as much protection, include the latest safety features, or be tested to the most current standards. It's especially important to find out the year a car seat was manufactured—and whether it was involved in a crash—if you are considering buying a secondhand seat or using a hand-me-down.

seats are not marketed specifically for infant sleep. Instead, car seats—even those that you can remove from a vehicle to lock into a stroller—are designed for safe travel.

"While the risks of sleeping on an incline are serious, they are vastly outweighed by the protection a well-designed and properly installed car seat offers in a crash," Thomas says.

Proper Use of Car Seats

Stay rear-facing as long as possible.

That means until the child reaches the seat's height or weight restriction, which could be up to age 4. Rear-facing seats should be at a 30- to 45-degree angle. "Most manufacturers provide a label or a bubble indicator to show you how to position the seat," says Sarah Haverstick, a certified child passenger safety instructor at Evenflo, which makes car seats.

Buckle up the five-point harness.

That helps prevent injuries and ejections during crashes, says Jennifer Stockburger, head of car-seat testing at CR. Even during uneventful drives, the five-point harness keeps babies from sliding down or rolling over or onto their side, which could lead to suffocation. If you use a positioner such as an infant insert to help babies fit more securely, "use only what is approved for and provided by your car-seat manufacturer," Haverstick says. Others might not perform properly in a crash or support the baby's head enough to allow airflow.

Monitor your child. Check on your child when in the car seat, and periodically stop to let your baby stretch, Stockburger says. If your baby is sleeping when you get to your destination, don't loosen the harness and let him sleep unattended. He could become entangled in the straps or turn and cut off airflow. Instead, move him to a safe sleeping space, such as a firm, flat crib or bassinet.

WHICH KIND OF CAR SEAT IS RIGHT FOR YOUR CHILD?

The first three seats below are best for most families: an infant seat for your baby's first year, a convertible until age 5 or 6, and a belt-positioning booster until your child fits your car's seat belt alone. The other two seats can be good choices for some people—for example, an all-in-one for a caregiver who occasionally travels with children and a toddler booster/combination seat for parents who want to pass a convertible to a younger sibling.



INFANT SEAT

CHILD'S WEIGHT
4 to 35 pounds

Infant car seats, which are rear-facing only, are best for babies from birth to age 1. They can also be used for children up to age 2 if they meet the seat's height and weight requirements. But CR's testing shows that a convertible seat may offer added head protection for babies 1 year or older. And though some infant seats are designed for babies weighing up to 35 pounds, most children outgrow the height limit first. These seats attach to a base installed in the car and can be removed to serve as an infant carrier or snapped into a compatible stroller.



CONVERTIBLE SEAT

CHILD'S WEIGHT
5 to 50 pounds *when rear-facing* and
20 to 85 pounds *when forward-facing*

Convertible seats are typically best for children between ages 1 and 3 when in the rear-facing position, and for children ages 3 through 6 when forward-facing. The seats may also be used for kids of other ages if they fit the seat's height and weight limits. These seats are good options for several reasons. CR's tests show that convertible seats, when rear-facing, offer better head protection for children 1 year and older than do infant seats. And they allow kids to stay rear-facing longer. When your child reaches the height or weight limit of the rear-facing mode, the seat can be turned forward-facing.



BELT-POSITIONING BOOSTER SEAT

CHILD'S WEIGHT
30 to 120 pounds

These seats, which raise children up so that a car's seat belt fits correctly, should be used after a child outgrows a convertible seat, generally around age 6. Boosters should be used until a child is tall enough (4 feet, 9 inches) to properly fit just the car's seat belt, typically sometime between ages 8 and 12. These seats come in three main styles: high-back, backless, and models that can convert from high-back to backless. CR recommends using boosters in high-back mode: That better positions the shoulder seat belt and provides some side-impact protection.



ALL-IN-ONE SEAT

CHILD'S WEIGHT
4 to 50 pounds
when rear-facing,
20 to 80 pounds *when forward-facing*, and
30 to 120 pounds
in belt-positioning booster mode

All-in-one seats can serve as a child's car seat from birth up to age 12, providing good value. But CR's tests have found that by trying to do too much, they don't do any single task all that well. These seats also lack the convenience of a detachable carrier, are usually large, and might not fit smaller babies or small cars well. Still, they make good backup seats and may work well for caregivers who only occasionally drive with children in their cars.




TODDLER BOOSTER/ COMBINATION SEAT

CHILD'S WEIGHT
22 to 90 pounds *in harness mode* and
30 to 120 pounds
in belt-positioning booster mode

These seats, which are forward-facing only, can be used with a harness or, with the harness removed, as a booster using just the car's own seat belt. Harness mode is best for kids who are at least 2 years old until about age 6. After that, children can sit in booster mode until they are tall enough (4 feet, 9 inches) to go without a booster, typically between ages 8 and 12. These seats are safe for kids who have outgrown a rear-facing seat but aren't ready for a belt-positioning booster, and can be an option if you need to pass a convertible seat to a younger sibling.

Ratings ➤ **Buckle Up!** Our experts rate five types of car seats so that you can find the safest and most easy-to-use model for your family.

	Brand + Model	Overall Score	Price	Test Results							
				Crash protection/ structural integrity	Ease of use	Fit to Vehicle					
						Rear-facing LATCH	Rear-facing Belt	Forward-facing LATCH	Forward-facing belt	Booster fit (with back)	Booster fit (no back)
INFANT											
✓	Chicco KeyFit	86	\$180	Best	⬆	⬆	⬆				
✓	Chicco KeyFit 30	84	\$200	Better	⬆	⬆	⬆				
✓	Graco SnugRide SnugLock 35 DLX	83	\$200	Better	⬆	⬆	⬆				
✓	Graco SnugRide SnugLock 35 Elite	83	\$200	Better	⬆	⬆	⬆				
✓	Chicco Fit2	80	\$280	Better	⬆	⬆	⬆				
✓	Combi Shuttle	77	\$150	Better	⬆	⬆	⬆				
✓	Uppababy Mesa	77	\$300	Better	⬆	⬆	⬆				
CONVERTIBLE											
✓	Britax Boulevard ClickTight	85	\$345	Best	⬆	⬆	⬆	⬆	⬆		
✓	Britax Marathon ClickTight	85	\$280	Best	⬆	⬆	⬆	⬆	⬆		
✓	Chicco NextFit Zip	82	\$300	Best	⬆	⬆	⬆	⬆	⬆		
✓	Nuna Rava	82	\$450	Better	⬆	⬆	⬆	⬆	⬆		
\$	Cosco Scenera Next	74	\$50	Better	⬆	⬆	⬇	⬆	⬆		
\$	Evenflo SureRide	74	\$100	Best	⬆	⬆	⬆	⬆	⬆		
HIGH-BACK TO BACKLESS BOOSTER											
\$	Evenflo Big Kid Sport (model number starting with 319)	75	\$30	Pass	⬆					⬆	⬇
\$	Evenflo Big Kid Sport (model number starting with 365)	75	\$30	Pass	⬇					⬆	⬇
✓	Nuna Aace	72	\$200	Pass	⬆					⬆	⬇
✓	Chicco KidFit	70	\$100	Pass	⬆					⬆	⬆
ALL-IN-ONE											
\$	Graco Milestone	79	\$230	Best	⬆	⬆	⬆	⬆	⬇	⬆	
✓	Graco 4Ever	75	\$300	Best	⬆	⬆	⬆	⬆	⬇	⬆	
\$	Evenflo Symphony (With SureLATCH)	72	\$200	Best	⬆	⬆	⬆	⬆	⬆	⬆	
	Evenflo SafeMax All-in-One	64	\$280	Best	⬇	⬇	⬆	⬆	⬆	⬆	
TODDLER BOOSTER/COMBINATION											
✓	Graco Nautilus SnugLock LX	82	\$205	Better	⬆			⬆	⬆	⬆	
\$	Cosco Highback Booster	75	\$42	Best	⬆			⬆	⬆	⬆	
\$	Evenflo Maestro Sport	73	\$75	Best	⬆			⬆	⬆	⬇	
✓	Graco Nautilus 65 LX	72	\$170	Better	⬆			⬆	⬆	⬆	
>	All-Access and Digital members can find the latest, complete ratings at CR.org/carseats .										

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

HOW WE TEST: Overall Score is based on the performance of the product in all our tests. To assess **Crash protection/ structural integrity**, we simulate a

35-mph frontal collision with standard child-sized dummies to evaluate potential injuries and whether the seat remains intact. Models are rated Basic, Better, or

Best. High-back to backless boosters are assessed on a pass-fail basis. **Ease of use** is an assessment of a seat's instructions, features, and how easy it is to make

adjustments. **Fit to Vehicle** evaluates the ability to securely and correctly install each seat using seat belts and LATCH systems in a variety of vehicles.



Sweet Are Made



Dreams of These

Use our strategies to shop online for your biggest mattress savings ever. And consult our face-offs for common sleeping needs, so you spend your money on the features that matter. Plus, for the first time ever, we apply our expert testing to pillows.

by Haniya Rae

Illustrations by **Mitch Blunt**

What makes for a great night's sleep is a highly individual thing, but there's no arguing that a supportive mattress is key. Today, consumers have more options than ever, at prices lower than ever, and many can be delivered to you at the click of a Buy button.

The top 15 online mattress sellers, which include Amazon and Casper, made nearly \$900 million in sales last year—a 41 percent increase over the previous year. According to CR's latest member survey on mattress retailers, the percentage of respondents buying a mattress online has almost tripled over the past four years, from 14 to 40 percent. CR members who shop online are roughly twice as likely as those who shop at a walk-in store to get what they consider to be an excellent price. The median price paid by members dropped from more than \$1,300 in our 2016 survey to \$1,200 in our 2019 survey.

If you buy online, you can still get a great mattress. "We've found no difference in performance in mattresses bought online when compared to in-store models," says Chris Regan, who oversees Consumer Reports' mattress tests. To get the best deals, follow these steps.

1. BE MODEL-SPECIFIC IN SEARCH

Instead of searching your browser for brands, search for the mattress model along with "discount" or "coupon." When we searched for the Voila Hybrid innerspring, \$1,200, which scores well in our tests, several 10 percent coupon codes popped up.

You'll need to test these codes on the retailer's website when you prepare to check out to make sure they work. You may also find different prices at different retailers during this search. Note which website offers the best price—better yet, take a quick screenshot. In the end, if you decide to buy at a different site (because, say, it

has free shipping or a better return policy), you can use the information to haggle for a better price.

2. SCAN FOR PROMOTIONS

Many bed-in-a-box mattresses are sold exclusively online at the brand's website, and they tend to offer generous return policies—but you might not find the same mattress anywhere else. Once you arrive on the company's main page, look for current promotions. For example, the Cocoon by Sealy, which earns a Very Good Overall Score in our tests, has been offered in website promotions for \$75 off any mattress or \$125 off a mattress and foundation. Retailers

often apply restrictions to such promotions, so check the fine print.

3. SIGN UP FOR NEWSLETTERS

Many retailers offer discounts if you sign up for their email newsletter. When you first go to a mattress company's website, a pop-up window might appear, asking you to provide your email address to receive a discount. In our research, the WinkBeds home page served a pop-up that invited us to sign up for the company's newsletter in exchange for \$50 off our order. Of course, if you're tired of the marketing emails that go along with this, you can use them and lose them. Simply remember to unsubscribe after you make your purchase.

4. HIT PAUSE

Another money-saving tactic to try: After signing up for the newsletter and adding a mattress to the cart, take a U-turn: Close the browser tab and go on with your life. Though this might seem counterintuitive, this passive approach to getting a deal often prompts an automated marketing system to send you an email or a text message with a discount code, to nudge you closer to a purchase. We found that online retailers GhostBed and WinkBeds sent a discount, and Purple and Sleep on Latex sent a reminder but no savings incentive.

5. HAGGLE

Even though you're online, you can still haggle. Consider live-chatting with a company representative to see whether you can get him or her to agree to any extra discounts or to throw in free delivery or other perks, such as a pillow.

Only 6 percent of those in our 2019 Mattress Retailers Survey who purchased online attempted to haggle,

but the majority of those who did were rewarded for their assertiveness. In fact, 59 percent of those who asked scored a deal; the same success rate applies to those who haggle in a store. In our survey, some CR members reported saving at least \$100 on an online mattress purchase.

Before you start chatting and haggling, though, it's prudent to prepare a script. Know which model you're interested in, and be open about your budget and the fact that you'd like a deal. Take note of what a mattress company's competitors are doing: If Sleep on Latex is offering \$99 off a mattress, maybe Tuft & Needle can match it. Similarly, if you've found the model you want at a better price but would rather have it sent directly from the manufacturer, ask whether it will match the price.

6. INVESTIGATE FREEBIES

Aside from discounts on the mattress itself, you can ask whether the company might throw in other perks, such as white-glove service (the mattress is delivered to your home and installed directly on your bed frame) or a service that picks up the mattress if you're dissatisfied with it.

There are other options, too. "The most popular add-ons are free or discounted pillows, throws, sheets, and mattress protectors," says Claudette Ennis, a market analyst at CR. In our survey, 91 percent of CR members who bought from Nectar received free pillows with their mattress purchase.

On the following pages, you'll find face-offs among mattresses across sleeping types and preferences, to help you to evaluate the pluses and minuses and make the best match for you. (All prices are for a queen-size mattress.) Then dip into fuller ratings at the end of this package.



Your Mattress Matchmaker

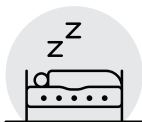
FOAM MATTRESSES

LEAST VS. MOST EXPENSIVE

**AmazonBasics
Memory Foam
10-Inch**
\$245

OVERALL SCORE

68



**Tempur-Pedic
Tempur-
LuxeBreeze Firm**
\$4,500

OVERALL SCORE

62

WHAT THEY HAVE IN COMMON

Both of these mattresses are on the soft side, and both are made of several layers of foam. With either mattress, you might feel a little stuck when you shift positions because the foam may sink in a bit when you lie down on it, but that's pretty common with foam mattresses in general.

WHERE THEY DIFFER

The bare-bones gets average and better-than-average ratings for supporting side and back sleepers of all sizes—slightly better than the Tempur-Pedic. The Tempur-Pedic offers stellar support for petites who sleep on their back or side but only so-so support for other types of sleepers. If you tend to sleep warm, the AmazonBasics isn't a great choice: In our tests, it tended to trap body heat. The Tempur-Pedic sleeps cooler.

THE WINNER



The **AmazonBasics** is a great mattress if you sleep on your side and a good one if you sleep on your back, no matter your size. Although the Tempur-Pedic scores okay in our support tests and sleeps cooler, it's hard to justify the price: You'll pay 18 times as much for the Tempur-Pedic, but you won't get a mattress that's 18 times as good.

WHAT OUR TESTING TERMS MEAN

Firmness: We don't just take a manufacturer's word for how firm its mattress is. We use an industry test standard to see for ourselves—we apply a load of up to 1,000 newtons (4.4 newtons equal a pound) to each mattress—and plot the results on a scale of 1 to 10, with 10 being the firmest. **Stability:** This refers

to how much bouncing or vibration transfers when there is movement on a mattress. We also note how easy it is to move around and change positions. The less bounce and the easier it is to shift positions, the better. **Support:** For side-sleeper support, we mark several points along the sleeper's spine. We use

a laser level to graph multiple points along the spine to chart its curve, then assess whether a mattress keeps the spine horizontal. For back-sleeper support, we map the subject's spine while he or she is standing and compare it with the sleeper's spine while lying on a mattress. **Large/tall:** In our tests, we use

a man 6 feet, 2 inches to 6 feet, 4 inches tall and weighing 220 to 242 pounds. **Petite:** In our tests, we use a woman 4 feet, 11½ inches to 5 feet, 1½ inches tall and weighing 110 to 127.5 pounds. **Average:** In our tests, an average-sized sleeper is between the sizes of our petite and large/tall sleepers.

FOR BACK SLEEPERS

\$600 AND UNDER

**Sleep
Innovations
Marley**
\$430

OVERALL SCORE

77



**Casper
The
Essential**
\$600

OVERALL SCORE

60

WHAT THEY HAVE IN COMMON

Neither of these foam mattresses has any side grips, so you might have some difficulty maneuvering these floppy beds.

WHERE THEY DIFFER

For back sleepers, the Casper leaves a lot to be desired. It offers great support if you're petite but not if you're large or tall. The Sleep Innovations, however, is even better for petite back sleepers than the Casper, and is great for supporting back sleepers of all other sizes. The Casper earns a Good rating for keeping vibrations (from when you shift in your sleep) to a minimum, but the Sleep Innovations bests it by earning a Very Good score. One area where the Casper excels: It doesn't retain warmth, and the Sleep Innovations does. The Sleep Innovations is firm, earning a 7 out of 10 on our firmness scale, while the Casper is soft, earning a 3.



THE WINNER

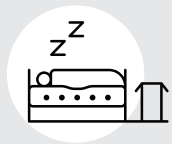
Despite Casper's marketing blitz (has anyone not seen its ads?), we rate the **Sleep Innovations** better overall because you can expect better support if you're a back sleeper. You'll pay \$170 less, too.



TUFT &
NEEDLE
MINT
\$895

78

OVERALL
SCORE



POPULAR FOAM BEDS-IN-A-BOX

CUTTING THROUGH THE HYPE

**Tuft
& Needle Mint**
\$895

OVERALL SCORE

78

**Leesa
The Leesa**
\$1,000

OVERALL SCORE

70

**Purple
The Purple**
\$1,000

OVERALL SCORE

76

WHAT THEY HAVE IN COMMON
Beds-in-a-box from online-only retailers have surged in popularity, and these are three of the most highly searched by consumers. They're on the softer side, based on our mattress firmness scale. None have grips, so you're likely to need an extra pair of hands to move or rotate these mattresses for even wear.

WHERE THEY DIFFER

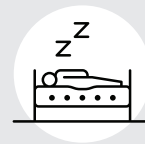
The Tuft & Needle and the Leesa are each made of three layers of foam; the Purple has two layers of foam. The Purple is built with a purple-colored "Hyper-Elastic Polymer" layer inside that is purported to keep the mattress cool and improve support so that "your shoulders and hips are cradled." But our testers didn't note anything special in terms of support. The Leesa and the Purple earn Good (but not the best) ratings for supporting large and tall sleepers, no matter their

sleep style; other foam mattresses in our ratings score higher. But the Tuft & Needle earns a Very Good rating for sleepers of all sizes and sleeping positions, beating both the others in our tests. As for whether it's easy to move around on these rather soft foam mattresses, you won't have too much trouble on the Purple, but the Tuft & Needle edges out both by offering superior stability. The Leesa did not do so well at easing movement. In terms of not retaining heat, the Purple and the Tuft & Needle pass with flying colors, but the Leesa sleeps warm in our tests.



THE WINNER

Tuft & Needle's mattress not only costs \$100 less than the Purple and Leesa but also offers better support and more stability.



FOR SIDE SLEEPERS

\$600 AND UNDER

**Denver
Mattress
Doctor's Choice
Plush** \$580

OVERALL SCORE

76

**Novaform
Comfort
Grande** \$600

OVERALL SCORE

68

WHAT THEY HAVE IN COMMON

For a similar and reasonable price, both of these mattresses are great for giving side sleepers the support they need for a good night's rest. And neither retains much heat, so you'll be cool and comfy while you sleep.

WHERE THEY DIFFER

The Denver Mattress is an innerspring, and the Novaform is made of three layers of foam, one of which is memory foam. Because of this, they each respond slightly differently to movement on the mattress. With the Denver Mattress, you or your partner will feel a bit of bounce when one of you moves (it earned a Good score for stability) because innersprings typically transfer motion more than foam. The Novaform is more stable, earning a Very Good score in those tests. You also don't have to worry about getting stuck in the Novaform when you shift positions, a problem with certain foam mattresses. In terms of convenience, the Denver Mattress has four grips on its sides; the Novaform doesn't have any grips.



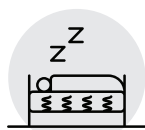
THE WINNERS

Both mattresses offer top-notch support if you're a side sleeper. The **Denver Mattress** has a higher Overall Score, but if some bounce will bother you when you sleep, go with the **Novaform**.

BEST INNERSPRING

IF YOU CAN SPLURGE

**Avocado
Green**
\$1,400



OVERALL SCORE

85

**Casper
The Casper
Hybrid**
\$1,200

OVERALL SCORE

84

WHAT THEY HAVE IN COMMON

You won't have to worry about feeling hot and sweaty when you sleep on either of these innerspring mattresses—neither retained body heat in our tests.

WHERE THEY DIFFER

The Avocado earns Excellent ratings for supporting people of many sizes and sleep styles, except for petite-side-sleeper support, for which it performs just slightly lower, earning a Very Good rating. But the relatively new innerspring mattress from Casper is not far behind. It earns Very Good scores across the board for all types of sleepers except petite back sleepers—it earns an Excellent rating for that group. The Avocado is a firm mattress, coming in at 7 on our firmness scale; the Casper is soft, rating a 3. One notable concern with the Avocado is you'll probably feel your partner shifting in his or her sleep; the Casper is better at tamping down vibrations. Concerned about moving the mattress? The Avocado has four grips for easy handling, and the Casper has none.



THE WINNER

If you prefer a softer mattress and minimizing vibrations is important to you, the **Casper** is the better choice. You'll spend \$200 less, too.

FOR COUPLES

UNDER \$1,000

**Charles
P. Rogers
Real Bed**
\$950



OVERALL SCORE

77

**Nest
Bedding
Love & Sleep**
\$700

OVERALL SCORE

76

WHAT THEY HAVE IN COMMON

Both mattresses are fairly soft, and both earn an Excellent rating for keeping vibrations at bay in our tests. That's crucial for couples because it means you won't get bounced around every time your partner rolls from side to side, and you'll both be able to move around easily. These mattresses also each earn Very Good ratings for back sleepers.

WHERE THEY DIFFER

The Charles P. Rogers is an innerspring mattress; the Nest is foam. If you or your partner is a side sleeper, there are notable differences. The Charles P. Rogers earns above-average ratings for side sleepers who are petite and average-sized, putting it slightly ahead of the Nest, which offers the same level of support only for petite side sleepers. The Charles P. Rogers is easier to reposition, too, because it has four grips and the Nest doesn't have any. For those who tend to get sweaty at night, the Nest is not a great choice: This mattress tends to retain body heat, making for uncomfortably warm sleeping.



THE WINNER

The **Charles P. Rogers** edges slightly past the Nest because it supports side sleepers a little better and has some useful features. But both mattresses will keep you and your partner from disturbing each other when shifting during sleep.

BUDGET FOAM

BEDS-IN-A-BOX

UNDER \$400

**Spa Sensations
by Zinus 12"
Theratouch
M-FMS-1200Q**
\$330

OVERALL SCORE

74

**Signature
Sleep
Gold Inspire**
\$395

OVERALL SCORE

76

WHAT THEY HAVE IN COMMON

These are made of several layers of foam, and they retain body heat, so you might find yourself stickier than you'd like at night. They're also both smack dab in the middle of our firmness scale—not too soft, not too hard, though the Signature Sleep inches toward the

firmer end. Neither has grips to aid in lifting or rotating the mattress. And neither mattress helps to ease your movements.

WHERE THEY DIFFER

These two mattresses are neck-and-neck in our tests. They're not the cheapest foam mattresses we tested (for

that, see the AmazonBasics, on page 27), but they are the top performers in this budget-friendly price range. The Signature Sleep is great for back and side sleepers who are petite and average sizes but not for those who are large or tall. The Spa Sensations came in slightly behind

the Signature Sleep overall for side and back sleepers.



THE WINNER

The **Signature Sleep** comes out on top because of its better support scores, but know that if you tend to toss and turn a lot, you might feel a little stuck sometimes.

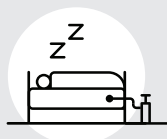


Want to know how to clean your mattress and keep the dust mites at bay? Our handy video guide to mattress cleaning will help you to keep your bed in top shape: [CR.org/cleanbed0220](https://www.consumerreports.org/cleanbed0220)



**SLEEP
NUMBER**
360 C2
SMART BED
\$1,000

80
OVERALL
SCORE



ADJUSTABLE

AIR MATTRESSES

LEAST VS. MOST EXPENSIVE

Sleep Number
360 c2
Smart Bed
\$1,000

OVERALL SCORE
80

Sleep Number
360 i8
Smart Bed
\$3,600

OVERALL SCORE
67

WHAT THEY HAVE IN COMMON

There are not a lot of players in the adjustable air category, so it's not surprising that the same company is competing with itself. The Sleep Numbers allow you to adjust the mattress's "comfort" on both sides independently using a smartphone app, and it worked well in our tests. You hear the air being pumped into these mattresses when you fill them, and you're likely to hear some sound as they self-adjust throughout the night to maintain the set comfort level. (These aren't the models with the ability to raise the head of the mattress; for that, you'll need to spring for the company's FlexFit feature, which costs \$2,000.)

WHERE THEY DIFFER


The less expensive c2 earns some of our highest marks across the board for supporting people of all sizes who sleep on their back or side; the i8 is much more average in terms of the support—not terrible, but not as robust as the c2. The c2 is great at keeping vibrations to a minimum—you'll hardly notice your partner's tossing and turning. The i8 is not far behind in our stability tests, though. The c2 is much firmer; it has 2 inches of foam on top of the air bladder and earns a 7 on our firmness scale. The i8 is a 4 on our firmness scale and has 6 inches of foam on top of the air bladder.



THE WINNER

Hands down, the **c2**. It offers great support for all body types and sleep styles, and it won't bounce you around. You'll surely think of better ways to spend the \$2,600 you'll save.

Ratings ➤ **Great Sleep Doesn't Have to Cost a Fortune** Here, our top-rated foam mattresses that go for \$1,100 or less and innerspring mattresses priced at \$1,500 or less.

Brand + Model			Overall Score	Price	Test Results								Features				
					Support						Durability	Stabilization	Firmness rating	Resists bounce	Eases movement	Grips	Bed-in-a-box
					Petite side sleepers	Average side sleepers	Large/tall side sleepers	Petite back sleepers	Average back sleepers	Large/tall back sleepers							
FOAM, \$1,100 OR LESS																	
\$	Sleep on Latex Pure Green Firm ^{1 2 3}	81		\$795	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	7	●	●	0	●
✓	Tuft & Needle Mint ⁴	78		\$895	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	4	●	●	0	●
\$	Novaform Serafina Pearl Medium (Costco) ^{4 5}	78		\$800	⬆	⬆	⬇	⬆	⬆	⬆	⬆	⬆	5	●		0	●
✓	Owls & Larks Revel 12-inch Gel Memory Foam ⁵	78		\$1,000	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	7	●		0	●
✓	Lull The Lull ^{4 5}	78		\$800	⬆	⬆	⬇	⬆	⬆	⬆	⬆	⬆	6	●		0	●
✓	GhostBed GhostBed ^{1 4 5}	77		\$895	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬆	7	●	●	0	●
\$	Sleep Innovations Marley ^{4 5}	77		\$430	⬆	⬆	⬇	⬆	⬆	⬆	⬆	⬆	7	●		0	●
✓	Serta SleepToGo	76		\$800	⬆	⬆	⬆	⬆	⬆	⬆	⬆	⬇	5	●		0	●
✓	Nest Bedding Love & Sleep	76		\$700	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬆	4	●	●	0	●
✓	Signature Sleep Gold Inspire	76		\$395	⬆	⬆	⬇	⬆	⬆	⬆	⬆	⬇	6	●		0	●
✓	Purple The Purple Mattress ²	76		\$1,000	⬆	⬆	⬇	⬆	⬆	⬇	⬆	⬆	3	●	●	0	●
✓	MyPillow 10" Mattress ^{4 5}	74		\$900	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬆	6	●	●	0	●
✓	Ashley Sleep The Perfect 10 ^{4 5}	74		\$700	⬆	⬆	⬇	⬆	⬆	⬆	⬆	⬆	4	●		4	●
\$	Spa Sensations by Zinus 12" Theratouch M-FMS-1200Q	74		\$330	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬆	5	●		0	●
\$	Tuft & Needle T&N Mattress ^{2 4}	74		\$595	⬆	⬆	⬆	⬆	⬇	⬇	⬆	⬆	5	●	●	0	●
✓	Rivet M-MAT-10000-QN-WHT	74		\$400	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬇	4	●		0	●
✓	Nectar The Nectar ⁵	73		\$795	⬆	⬆	⬇	⬆	⬆	⬇	⬆	⬇	6	●		0	●
✓	Tulo Medium ⁵	73		\$650	⬆	⬆	⬇	⬆	⬇	⬇	⬆	⬆	3	●		0	●
✓	Dream Science by Martha Stewart Collection 12" Memory Foam	73		\$555	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬇	7	●		0	●
	Serta Perfect Sleeper 10"	72		\$800	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬆	6	●		0	●
	Bear Queen ⁴	71		\$850	⬆	⬆	⬇	⬆	⬆	⬇	⬆	⬆	6	●	●	0	
	Beautyrest 14" SurfaceCool Gel ^{4 5}	71		\$600	⬆	⬆	⬆	⬇	⬇	⬇	⬆	⬆	4	●	●	0	●
	Bob-O-Pedic MyBob Gel	70		\$1,100	⬆	⬇	⬇	⬆	⬆	⬆	⬆	⬇	2	●		4	●
	Leesa The Leesa Mattress	70		\$1,000	⬆	⬆	⬇	⬆	⬆	⬇	⬆	⬆	4	●		0	●
	Novosbed Memory Foam ⁵	69		\$1,100	⬆	⬇	⬇	⬆	⬆	⬇	⬆	⬇	4	●		0	●
	Eight The Smart Mattress	69		\$1,050	⬆	⬆	⬇	⬆	⬇	⬇	⬆	⬆	5	●	●	0	●
	Yogabed Luxury Foam Y10 ²	69		\$850	⬆	⬇	⬇	⬆	⬆	⬇	⬆	⬆	6	●	●	0	●
	Ashley Sleep Chime Elite M67431	69		\$440	⬆	⬆	⬇	⬆	⬆	⬇	⬆	⬇	5	●		0	●
	Dromma Triple Layer ^{1 4 5}	69		\$850	⬆	⬆	⬇	⬆	⬇	⬇	⬆	⬆	4	●	●	0	●
	Zinus Green Tea Pressure Relief	69		\$340	⬇	⬇	⬇	⬆	⬆	⬇	⬆	⬆	6	●		0	●
	Sleep Innovations Taylor 12 Inch Gel Swirl ^{4 5}	68		\$470	⬆	⬆	⬆	⬆	⬆	⬇	⬆	⬇	6	●	●	0	●
	Novaform Comfort Grande (Costco) ^{4 5}	68		\$600	⬆	⬆	⬆	⬆	⬇	⬇	⬆	⬆	6	●	●	0	●
	AmazonBasics Memory Foam 10-Inch	68		\$245	⬆	⬆	⬇	⬆	⬇	⬇	⬆	⬇	2	●		0	●
	Ikea Myrbacka ^{1 5 6}	68		\$500	⬆	⬇	⬇	⬆	⬆	⬇	⬆	⬆	7	●	●	4	

Brand + Model		Overall Score	Price	Test Results							Features				
<div><div>XXXXXX</div><div>XXXXXX</div><div>XXXXXX</div></div>			Support						Durability	Stabilization	Firmness rating	Resists bounce	Eases movement	Grips	Bed-in-a-box



INNERSPRING, \$1,500 OR LESS

✓ Avocado Green ¹ 3	85	\$1,400	↑	↑	↑	↑	↑	↑	↑	↑	↑	7	•	•	4	•
✓ Casper The Casper Hybrid	84	\$1,200	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	0	•
✓ Charles P. Rogers Powercore Estate 5000 ¹	80	\$1,500	↑	↑	↑	↑	↑	↑	↑	↑	↑	6	•	•	8	
⌘ Bob-O-Pedic Hybrid 20038999003	79	\$900	↑	↑	↑	↑	↑	↑	↑	↑	↑	5	•	•	8	•
⌘ Beautyrest Silver BRS900-TSS Medium Firm Tight Top	78	\$790	↑	↑	↑	↑	↑	↑	↑	↑	↑	4	•	•	0	
⌘ Sealy Posturepedic Lawson LTD Cushion Firm	77	\$710	↑	↑	↑	↑	↑	↑	↑	↑	↑	5	•	•	0	
✓ Voila Hybrid Medium ¹ 5	77	\$1,200	↑	↑	↑	↑	↑	↑	↑	↑	↑	6	•	•	0	•
✓ Charles P. Rogers Real Bed	77	\$950	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	4	
⌘ Denver Mattress Doctor's Choice Plush	76	\$580	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	4	
⌘ Allswell Luxe Hybrid	75	\$585	↑	↑	↑	↑	↑	↑	↑	↑	↑	7	•	•	0	•
✓ Charles P. Rogers St. Regis Pillowtop	75	\$1,160	↑	↑	↑	↑	↑	↑	↑	↑	↑	6	•	•	4	
✓ Sealy Posturepedic Essentials Trust II ⁵	74	\$1,100	↑	↑	↑	↑	↑	↑	↑	↑	↑	4	•	•	0	
⌘ Classic Brands Sleep Trends Davy	74	\$780	↑	↑	↑	↑	↑	↑	↑	↑	↑	4	•	•	0	•
✓ Denver Mattress Doctor's Choice Euro Top	74	\$750	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	4	
✓ Nest Bedding Alexander Signature Hybrid Copper Infused Thermic Phase Change Cooling Fabric	74	\$1,300	↑	↑	↑	↑	↑	↑	↑	↑	↑	2	•	•	4	•
✓ Saatva Flagship Luxury Firm Euro Top	74	\$1,100	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	4	
Tomorrow SleepSystem ⁵	72	\$990	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	0	•
Sealy Posturepedic Performance Kelburn II	72	\$1,300	↑	↑	↑	↑	↑	↑	↑	↑	↑	5	•	•	0	
MacyBed by Serta Elite 13" Luxury Firm	72	\$900	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	4	
Serta Hotel Beds Concierge Suite II ⁴	71	\$1,100	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	0	
Amore Beds Hybrid ⁴ 5	71	\$950	↑	↑	↑	↑	↑	↑	↑	↑	↑	6	•	•	0	•
Sealy Posturepedic Premier Hybrid Copper Cushion Firm ⁴	70	\$1,275	↑	↑	↑	↑	↑	↑	↑	↑	↑	4	•	•	0	
Night Therapy Fusion Gel Hybrid ¹ 4 5	70	\$790	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	4	•
The Original Mattress Factory Orthopedic Luxury Firm	70	\$630	↑	↑	↑	↑	↑	↑	↑	↑	↑	4	•	•	4	
DreamCloud Hybrid Luxury	70	\$1,500	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	4	
Kingsdown Passions Imagination ⁴	70	\$1,140	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	4	
Night Therapy Euro Box Top Spring	69	\$248	↑	↑	↑	↑	↑	↑	↑	↑	↑	3	•	•	0	•
Serta iSeries 100 Firm ⁴ 5	69	\$1,200	↑	↑	↑	↑	↑	↑	↑	↑	↑	5	•	•	4	

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

HOW WE TEST: We calculate the **Overall Score** primarily by evaluating a mattress's side- and back-sleeper support, durability, and stabilization. Support for **side sleepers** is the ability of a mattress to keep a side sleeper's spine relatively horizontal. Support for **back sleepers** is the ability of

a mattress to maintain the natural curve of the back sleeper's spine. In our support tests, we use a woman 4 feet, 11½ inches to 5 feet, 1½ inches tall and 110 to 127.5 pounds for the **Petite sleeper** scores, and a man 6 feet, 2 inches to 6 feet, 4 inches tall and 220 to 242 pounds for the **Large/**

tall sleeper scores. The **Average sleeper** is an average of these two sizes. **Durability** gauges a mattress's ability to keep its original shape, height, firmness, and support after a simulated eight to 10 years of use, including our passing a nearly 310-pound roller over each mattress 30,000 times. A high

score for **Stabilization** indicates little or no bouncing or vibration transfer. We also note how easy it is to move around or change positions on the mattress. We rate **Firmness** on a scale of 1 to 10, with 10 being the firmest. **Price** is approximate retail for a queen-size mattress without a box spring.



Is There a Pill for That?

by Lisa L. Gill

THE INABILITY to fall asleep or stay asleep is not only maddening but also harmful. Chronic insomnia—or regularly not getting enough good sleep—is linked to a host of health problems, including weak bones, high blood pressure, and weight gain.

So it's easy to understand why people are desperate for a fix. But in most cases, drugs or supplements aren't very effective, and they can often pose risks.

Instead, the best first treatment is usually cognitive behavioral therapy for insomnia, or CBT-I, according to the American College of Physicians. Working with a therapist, patients often keep a journal detailing sleep patterns. They may also be given strategies to fix bad habits, such as using a smartphone too close to bedtime, or tips on improving their environment, such as keeping a room dark and cool.

Regardless, your healthcare provider may still suggest a drug or supplement, at least temporarily or to help with short-term sleep problems caused by, say, jet lag or a stressful event. In that event, here's what you need to know.

Prescription Drugs

Prescription sleep drugs come in various forms. Benzodiazepines, such as Doral, Halcion, and Restoril, slow activity of the brain and central nervous system. So-called Z-drugs, including Ambien, Lunesta, and Sonata, target the same receptors in the brain but do so more selectively. The newest drugs—Belsomra and Rozerem—affect the brain's sleep-wake cycles. An old antidepressant, trazodone, is also sometimes used because it has drowsiness as a side effect. Most prescription sleep pills increase your sleep time by only about 20 to 30 minutes.

RISKS All prescription sleep meds come with risks, notably next-day drowsiness, which can make driving dangerous. Some have been linked to sleepwalking and other odd nighttime behaviors. Benzos in particular can be habit-forming. And

some can worsen sleep apnea or other health problems, or cause dizziness, increasing the risk of nighttime falls, especially in older people.

ADVICE Doctors may suggest a prescription drug along with CBT-I for chronic insomnia. In most cases, the American Academy of Sleep Medicine (AASM) recommends taking the lowest dose for the shortest time possible. Your physician should check in every few months to see whether you still need the sleeping pills.

No sleep drug should ever be taken with alcohol, opioids, or any other sedative, and older people in particular should use them with caution. If you use one, be sure to have at least 7 hours available to sleep to reduce the risk of next-day drowsiness.

Over-the-Counter Drugs

Sleep drugs sold over the counter contain the antihistamine diphenhydramine (Sominex and others) or doxylamine (Unisom SleepTabs), both of which trigger drowsiness as a side effect.

RISKS OTC sleep aids can also trigger next-day drowsiness, especially when taken with other antihistamines or alcohol, and may be habit-forming when taken long-term.

ADVICE The AASM doesn't recommend these drugs for insomnia. If you opt to try one, don't take it longer than recommended on the package, about 14 days. To avoid accidentally taking too much, never combine it with other drugs that contain antihistamines, including allergy drugs, such as Benadryl; nighttime pain relievers, such as Advil PM; and cold drugs, such as Robitussin Severe Multi-Symptom Cough Cold + Flu Nighttime.

Melatonin

A 2018 CR nationally representative survey of 1,767 Americans found that,



People taking sleep drugs are as likely to be in a car crash as those driving with a blood alcohol level over the legal limit.

of those who had tried supplements for sleep, 86 percent used melatonin. The body naturally produces the hormone as it grows dark to signal the brain that it's time for sleep. If you don't naturally produce enough of it, or if you're trying to go to bed at a different time from normal—say, if you have jet lag or work a night shift—studies suggest that melatonin could help. It's less likely to help with other forms of insomnia.

RISKS Melatonin can cause next-day drowsiness, headaches, dizziness, or nausea. It can also interfere with certain drugs used to treat high blood pressure

or diabetes, and blood thinners. And there's little evidence about its safety beyond three months of use.

ADVICE The AASM says there's not enough evidence to recommend melatonin. If you want to try it anyway, especially for jet lag or shift work, experts say to keep doses to less than 10 mg. Check with your doctor about interactions with other drugs you may take.

CBD

Cannabidiol, a compound found in marijuana and hemp that doesn't get you high, is widely used to relieve pain and anxiety, as well as to improve sleep. In a 2019 nationally representative CR survey of 1,018 Americans who had tried CBD in the previous 24 months, 10 percent said they used it for sleep—and most of those said it helped. CBD might affect sleep by interacting with receptors in the brain that govern the body's daily sleep-wake cycles, according to a 2017 review in the journal *Current Psychiatry Reports*. Some research suggests that its effect on sleep might lessen with extended use.

RISKS Side effects appear to be mild (fatigue, diarrhea, and changes in appetite) and it's not addictive. But little is known about its effect in older people or pregnant women, or with long-term use. Some evidence suggests that at high doses it may interfere with certain prescription drugs, including blood thinners and antidepressants.

ADVICE If you want to try CBD, experts recommend starting with modest doses. And because CBD is inconsistently regulated, it can be hard to know whether a product has as much CBD as its label claims, has more THC (the psychoactive compound in cannabis) than it should, or is contaminated. For reassurance, ask the seller or manufacturer for a product's certificate of analysis, which shows the results of the company's own tests.

COOP HOME
GOODS
PREMIUM
ADJUSTABLE
LOFT
\$60

84

OVERALL
SCORE



TEMPUR-
PEDIC
BREEZE DUAL
COOLING
\$170

72

OVERALL
SCORE



SEALY
MEMORY
FOAM GEL
\$65

71

OVERALL
SCORE

The Precise and Peculiar Science of How We Test Pillows

For the first time ever, Consumer Reports is testing pillows—by poking, pounding, and prodding them in a series of rigorous machine-based tests, plus a number of tests with human subjects. We employ several machines and three sensors—including an X-sensor pressure mat, humidity sensors, temperature sensors, a C-frame material testing machine, angle gauges, and an environmental chamber for maintaining temperature and humidity. Our human subjects give us subjective impressions the machines can't, to get at whether a pillow makes you say "ahhhh" when you rest your

head on it; that's just one of the tests for a pillow's use-and-preference rating. We devote around 200 hours of testing per pillow, resulting in hundreds of data points for each one.

Arguably the most important factor is proper support; that can make the difference between restorative sleep and a stiff neck. To gauge whether a pillow will keep your head and neck aligned with your spine—thereby eliminating strain—we use gauges and graph the angle at which our test subjects' heads are positioned on each pillow. Pillows that minimize the angle between the head and the torso score better. We also analyze the data to see how well a pillow supports people of all sizes—petite, average, and large or tall—whether they sleep on their side or their back. A pillow may offer different support depending on factors such as how wide your shoulders are and how much your spine curves at the back of your neck.

We also have our human subjects lie down on a medium-firm queen mattress with each pillow covered by an approximately 20x20-inch rectangular area of an X-sensor pressure mat. Then we analyze roughly 1,600 pressure points

within that area. The sensors on the mat transmit data to our computer screen. Where the pressure is lowest, we see a deep blue color; where pressure increases, the colors range from yellow to red and the numerical value of the pressure changes. We grade each pillow on the peak pressure point recorded.

In addition to our support tests, we assess how well a pillow holds up over time. We place a 225-pound evenly distributed load on each pillow placed in an environmental chamber with a temperature set to 98.6° F to mimic body heat, at 80 percent humidity, and we leave it for 96 hours. This allows us to simulate use over time. We measure the thickness and firmness of the pillow after we take it out of the chamber and again after hand-fluffing it. The closer a pillow goes back to its original height and firmness, the higher its resilience score and the more likely it is to maintain its support over time.


But a supportive pillow isn't any good if it traps heat and makes you sweaty. To test how well a pillow dissipates heat, we measure how insulating it is. We also use a humidity sensor to evaluate how breathable it is. —H.R.

Staying in Shape

To see how well a pillow keeps its height, we use a stress strain machine in our resiliency tests. (Shown here: the Coop.)



Ratings ➤ **Pillow Talk** We put 10 pillows from widely available brands through a total of 2,000 hours of testing.

Brand + Model	Overall Score	Price	Test Results					Testing Highlights
			Side support	Back support	Resilience	Use and preference	Breathability	
								
✓ Coop Home Goods Premium Adjustable Loft	84	\$60	⬆	⬆	⬆	⬆	⬆	Our top-performing pillow is made of shredded memory foam and polyester fiberfill, and comes with a kit of additional fill that allows you to adjust its firmness to your liking—you can add more fill or remove some. Another bonus: You get a 100-night sleep trial; if you don't like it, you can return it for a full refund.
✓ Tempur-Pedic Breeze Dual Cooling	72	\$170	⬆	⬆	⬆	⬆	⬆	Made of a molded memory-foam slab, this pillow offers great support for side sleepers and maintains its shape very well. But if you sleep warm, you may want to check out other options here; in our tests, this pillow has a cooling gel top that feels cool initially but slowly retains heat more than it dissipates it. So it could make your head sweaty.
✓ Sealy Memory Foam Gel	71	\$65	⬆	⬆	⬆	⬆	⬆	This Sealy's gel layer is cool to the touch at first, but like the Tempur-Pedic above, it grows warmer as you lie on it—trapping heat and moisture under your head. It holds its shape, though, because it's made of a single slab of polyurethane foam.
MyPillow Premium	68	\$80	⬆	⬆	⬆	⬆	⬆	The shredded polyurethane foam in this pillow may help to keep sleepers cooler. But the pieces of foam can also move around and shift out of place, which is what happened in our tests. Some of our testers found sleeping on it to be annoying because the foam tended to bunch up around the head and neck.
Beckham Luxury Linens Hotel Collection	67	\$35	⬆	⬆	⬆	⬆	⬆	This polyester fiberfill pillow is a bargain buy for side and back sleepers because it earns our top ratings for supporting both. However, we found that it doesn't hold its shape over time as well as other pillows here.
Casper The Pillow	63	\$65	⬆	⬆	⬆	⬆	⬆	This polyester pillow didn't earn our top ratings for back or side sleepers. We found it to be average. It excels only in our breathability test—it doesn't trap heat, so you'll sleep cooler. Casper offers a 100-night sleep trial for its pillows, so you can always return it if you want to give it a try.
Mainstays Huge (Walmart)	59	\$4	⬆	⬆	⬆	⬆	⬆	Made with polyester fiber, this fill pillow costs less than most deli sandwiches, so it might be surprising that it gets anyone through even one night. It earned an Excellent score for back support, but in our resilience test that simulates long-term use, this pillow did not return to its original shape or thickness. Still, for four bucks, this might be just the thing to have on hand in bulk for occasional houseguests.
MyPillow Classic	58	\$40	⬆	⬆	⬆	⬆	⬆	The Classic is made with the same shredded polyurethane foam fill as the MyPillow Premium—but it has slightly less fill. Like the Premium, our testers found that the foam pieces inside tended to bunch up, making it hard for it to maintain its shape.
Made by Design Down Alternative Pillow (Target)	57	\$10	⬆	⬆	⬆	⬆	⬆	This pillow is stuffed with a polyester fiberfill and has a cotton-blend exterior. It offers great support for side sleepers, but it's unlikely to be able to offer that support over the long term, because it earns a Poor rating for resilience.
Member's Mark Hotel Premier Collection (Sam's Club)	54	\$17	⬆	⬆	⬆	⬆	⬆	Our lowest-scoring pillow is made of polyester fiberfill with a 100 percent cotton cover. It performs similarly to the Made by Design above but costs \$7 more.

HOW WE TEST: We calculate the **Overall Score** by evaluating pillows for how well they support back and side sleepers, whether they maintain their shape over time, how comfortable they are, and whether they allow moisture to dissipate. **Side support** is the ability of a pillow to keep the head and neck at a neutral angle relative to the tester's

spine. **Back support** is the same: We're looking for its ability to support head and neck at a neutral angle relative to the tester's spine. In our support tests, for a petite sleeper, we use a woman 4 feet, 11½ inches to 5 feet, 1¾ inches tall and 110 to 127.5 pounds, and for a large/tall sleeper, we use a man 6 feet, 2 inches to 6 feet, 4 inches

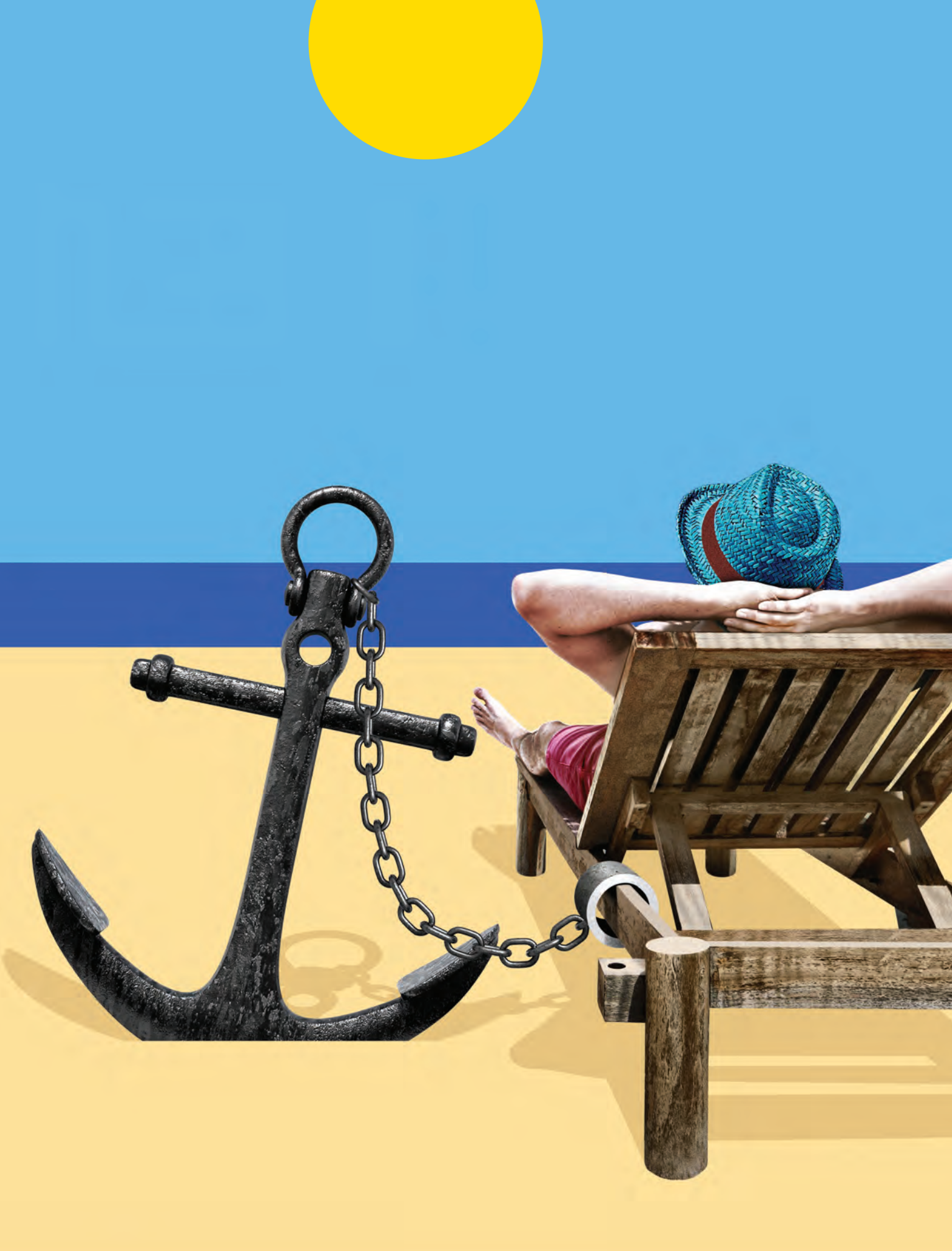
tall and 220 to 242 pounds. **Resilience** is scored by how well a pillow bounces back after being exposed to extreme weight and simulated body heat for an extended period of time. **Use and preference** is calculated from a subjective questionnaire issued to testers in combination with a pressure mat mapping 1,600 pressure points

to measure the contact area between the head and the pillow and look for how the head sinks into the pillow. To evaluate **Breathability**, we take humidity readings and assess whether the pillow traps heat or moisture. **Price** is approximate retail for a queen-size pillow.

TROUBLE IN PARADISE

Tempted by a timeshare? The appeal of saving money on a yearly vacation is real. But before you sign up, learn how to avoid common—and costly—pitfalls. And if you're already stuck in one you don't want, steer clear of timeshare "exit" companies that may be nothing more than scams.

by Barbara Peterson



IT

HAD BEEN SEVERAL years since Corinne Adams, 83, last visited the timeshare in Hawaii that she and her late husband purchased almost three decades ago. At more than \$600, the annual maintenance fee was an unnecessary expense, and Adams, a grandmother from Olympia, Wash., worried about burdening her adult children with a property they didn't want to inherit. So, she says, when she got a call from a woman representing Pro Timeshare Resales saying that she had several possible buyers lined up, she was receptive.

Adams says the caller explained that the company would find a buyer and take care of the paperwork. All Adams had to do was pay an upfront fee of \$1,528. More than two years and nearly \$10,000 later, Pro Timeshare had still failed to deliver a buyer, according to Adams, who gave testimony in a lawsuit against the company filed by the Federal Trade Commission in 2016.

"They were so persuasive; they always had someone about to sign," she says. "But every few months they'd come back saying they needed a little more time, and more money."

Adams, it turns out, was just one of thousands of consumers Pro Timeshare had defrauded. An FTC investigation found that the company had collected more than \$18 million from consumers without facilitating a single sale. (In October 2019, the FTC began issuing partial refunds to Adams and others.)

Although the FTC lawsuit led to a

court settlement that permanently shut down Pro Timeshare in 2018, there are many other timeshare exit companies like it. They especially target older owners like Adams, who are desperate to get out of timeshares they no longer want or can no longer afford.

"These companies know there is a vulnerable population of people to prey upon," says Michelle Corey, president and CEO of the St. Louis Better Business Bureau. Its own investigation found 10 Springfield-area companies that, the BBB says, bilked 356 customers out of \$2.2 million for services that were never delivered or completed.

Even business-savvy people can get reeled in by the questionable claims these companies make. Solomon Choi, a 39-year-old New York entrepreneur and founder of the 16 Handles frozen yogurt chain, turned to an exit company he found online six years after he purchased a Las Vegas timeshare, when the annual maintenance fee soared to more than \$2,000.

"I thought I could really be stuck with this for life," Choi says of the timeshare he bought during a free weekend trip to Las Vegas offered by the company in return for sitting through a mandatory sales pitch.

Months later, Choi learned that the exit company had gone bankrupt. He has paid \$11,200 to a second firm that took over his case—and is still waiting to learn when it will be able to release him from his timeshare.

Not All Fun in the Sun

More than 9 million U.S. households own some type of timeshare, according to estimates from the American Resort Development Association (ARDA), which represents the timeshare industry. These can be a stake in a property that entitles the owner to use it for a defined period of time or a points-based program that offers more flexibility.

Timeshares combine resort-style amenities with accommodations that

usually feature a kitchen and two or more bedrooms. Hilton Grand Vacations and Marriott Vacations Worldwide report that in 2018, sales worldwide were up 10.6 percent and 8 percent, respectively. ARDA says its surveys show that 85 percent of timeshare owners characterize their experience as good, very good, or excellent.

Still, a timeshare can be difficult to unload, in part because of a lack of demand for older ones on the resale market. The going rate on the Timeshare Users Group, where "used" timeshares are listed for sale, is about 10 percent or less of the original purchase price, according to Brian Rogers, who manages the website.

"It is virtually impossible to sell most timeshares for the price you paid," says Brian McDowell, a lawyer and partner with the firm Holland & Knight, who played a key role in the FTC case against Pro Timeshare.

Rising maintenance costs are helping to fuel the timeshare exit business, according to Gideon Sinasohn, an FTC attorney who filed the case against Pro Timeshare. "As these properties age, the costs of maintaining them go up," he says. The fee increases are usually kept to less than 5 percent a year, but that can add up quickly over time.

Seller Beware

There are two types of exit companies: resale firms, which claim they can sell your timeshare, and relief companies, which promise to release you from your contract and annual maintenance bills. Some do what they say. (Corinne Adams found a release company that successfully got her out of her timeshare last year.) But scammers abound, according to the FTC and the Better Business Bureau. So how can you tell them apart?

"Demanding a large fee in advance is a huge red flag," Sinasohn says. Another is if a company claims to be a law firm or says it works closely with lawyers



WHAT TO KNOW BEFORE BUYING

Timeshares, also known as “vacation ownership plans,” have evolved since they were first marketed in the 1960s and ’70s, commonly as a fixed week at a specific resort. Today there are also “floating week” timeshares that let you pick different weeks each year and points-based plans that let you book stays of varying lengths at different resorts, among other types. Established names, including Disney, Hilton, Marriott, and Wyndham, sell timeshares, but all vacation ownership plans come with a unique set of concerns. Keep these things in mind.

WEIGH THE COSTS

The average price of a new timeshare is \$21,455, which buys you the use of a property for one week each year, according to a recent survey by the American Resort Development

Association (ARDA). You can pay a fraction of the purchase price of a new timeshare by buying one secondhand on websites like eBay or on dedicated timeshare sites such as RedWeek and the Timeshare Users Group. Annual maintenance fees average \$1,000, according to ARDA, but can climb to more than \$3,000. Timeshares don’t appreciate in value, but if you hold on to one long enough—at least 13 years, according to a 2016 Consumer Reports estimate—you can begin to save on what you would have spent taking similar vacations on your own.

CONSIDER THE HASSLE FACTOR

If you buy a floating week timeshare, you may have to reserve your vacation nine to 12 months in advance to get a desirable location. Points-only plans

offer the most flexibility; you can vary both the length of the stay and the locale. But planning is essential to getting your money’s worth. And if you bought a timeshare because it was cheap in the hope of swapping it for stays at nicer properties (via membership platforms like RCI), you may be out of luck. If you’re not thrilled about staying there, you probably won’t get many takers.

AVOID AN IMPULSE BUY

Many timeshares are bought by people on vacation. There may be a brief window of as many as 15 days to back out, depending on the state. Arizona recently increased its window to 10 days while also requiring sellers to more clearly disclose the nature of the purchase. Always insist on time to think it over, away from the piña colada parties.

no further obligations. Marriott Vacations Worldwide, Club Wyndham, and other timeshare companies have also made it easier for owners to do the same thing, says Robert Clements, general counsel for ARDA, which has created a guide to legitimate exit strategies (at responsibleexit.com). But for consumers who feel chained to their timeshare by a contract they can’t break, there are strategies to help you part ways.

Ask the corporate owner about a deed-back program. As noted, some operators will now help owners unload their shares, but you may be on the hook for maintenance fees while they seek to resell the unit.

Sell it or give it away on an open forum. Numerous online forums and websites exist for owners seeking buyers for their shares. Among the most active is eBay, where the keyword “timeshare” will turn up hundreds of listings. You can also find them on Craigslist, the Timeshare Users Group, and RedWeek. Be sure to hire an attorney to prepare (or at least review) all paperwork related to the transaction and, given the weakness of the secondary market, be prepared to take a significant loss. But at the very least, you’ll get closure.

Suspend maintenance payments. Though it’s not a recommended strategy, you could stop making these payments as a last resort. Doing so could lead to foreclosure, damaging your credit score for up to seven years, and possible legal action, but some owners may find this approach to be the lesser of two evils.

Barbara Prideaux, 80, of St. Louis says she and her late husband let their timeshare go into foreclosure after a Missouri relief company they hired failed to get them released from their deed. “Our children never used the timeshare, and the fees just got to be too much,” Prideaux says. “I wasn’t happy about doing it this way, but we are moving on with our lives.”

but doesn’t identify them. (Be sure to check out the bona fides of any licensed attorneys who are involved.)

Rogers says that in most cases he’s aware of, clients of these companies never receive the promised service, or they pay a substantial sum for something they could have done themselves for far less money.

Making a Graceful Exit

As part of a 2016 settlement with the state of Arizona on behalf of disgruntled timeshare owners, Diamond Resorts, a timeshare company with 380 affiliated resorts in 33 states and 32 countries, established a program that allows certain consumers to relinquish fully paid but unwanted timeshares with

SECRETS TO STRESS- FREE TRAVEL

Cramped, chilly, noisy planes can make air travel a real hassle. These no- or low-cost tips can help bring some comfort back to flying. Plus, our luggage ratings and expert advice will have you packing like a pro.





As airlines reduce legroom and seat width to shoehorn more passengers into their planes for profit, comfort is in increasingly short supply. The 55,000 CR members who completed our most recent airline satisfaction survey gave legroom and seating comfort the lowest possible scores for all the domestic airlines we rated except JetBlue, which members gave only slightly higher marks.

Also distressing were reports from parents flying on the least expensive fares that airlines wouldn't guarantee they could sit with their young children unless they paid a fee or upgraded to a higher fare.

Here, we offer some easy and affordable ways to make flying more comfortable and increase the chance you'll be seated with your kids without having to pay for the privilege. And our exclusive luggage ratings and advice will help you choose the bags that will serve you best for the long haul.



CHOOSE THE RIGHT AIRCRAFT

Not all airplanes are created equal. Some incorporate technology designed to reduce fatigue and increase comfort, particularly on longer flights.

For instance, while most airline cabins are pressurized to the equivalent of 8,000 feet above sea level, the Boeing 787 and Airbus A350 and A380 (all typically used on international routes) are pressurized to the equivalent of 6,000 feet, which may improve oxygen absorption and reduce headaches and fatigue. Boeing and Airbus say the advanced air treatment systems on these models also make them less arid and more comfortable than other aircraft. Booking long flights on one of these types of planes may help you arrive feeling fresher and even reduce the effects of jet lag.



CHOOSE THE RIGHT SEAT

Savvy travelers know that choosing a seat involves more than deciding between window and aisle. While most seats in the economy section typically offer the same amount of personal space (many airlines allow you to purchase a few extra inches of legroom in coach for an added fee), other factors can make a seat more or less desirable. For instance, flyers sitting near the galleys or bathrooms may be subject to more noise, light, and even jostling from other passengers than those in other areas of the plane. Before choosing a seat, consult a website such as SeatGuru, which highlights the most and least desirable locations. (If you're flying on one of the cheapest fares, you

Taking the 'Lug' Out of Luggage

probably won't be able to choose your seat. And airlines reserve the right to change any passenger's seat assignment if it deems it necessary.)

When you're choosing where to sit, remember to consider the following:

Limited recline: A handful of seats on planes (such as those in exit rows) don't recline fully or at all, which can make sleeping or getting comfortable even more difficult.

Misaligned windows: Not all "window" seats are actually next to windows. If you like gazing out at the clouds, be sure the seat you choose really has a window next to it.

Seats near galleys and restrooms: These can be noisy, smelly, high-traffic areas.

Exit rows: These often provide added legroom but can be much colder than other areas of the plane. If you book one, you may need to bundle up.

If the seat you want isn't available when you're booking online, check back. Seats sometimes open up as the travel date nears. You can also check in for your flight online 24 hours before departure and review the seating map to see if a better option has become available. If not, try showing up at the check-in counter a couple of hours before the flight and requesting to have your seat moved. You can also ask at the gate. "I've had surprising luck asking gate agents for a different seat," says Tracy Stewart, an editor at the website Airfarewatchdog. "It doesn't always happen, but it's worth a shot."



**CONSIDER AN
AIRLINE-BRANDED
CREDIT CARD**

Consumers who frequently fly on the same carrier may find the benefits and conveniences provided by an airline-branded credit card worth the annual

The cost of checking bags with an airline can add hundreds of dollars to your travel tab, depending on how much luggage you're taking with you and how many members are in your party. And then there's the hassle of lugging it all around the airport and to wherever you're staying once you land. If you need to check an overweight or oversized item like a golf bag or skis, the price and aggravation rise accordingly.

A growing number of companies will transport your luggage for you so that it's waiting when you arrive. The cost can vary widely, depending on which shipper you use. But if you have plenty of time before departure, you can sometimes come close to—or beat—what the airlines charge. (Fees to check a bag on a domestic flight typically costs \$30 each way for the first bag and \$40 for the second.) Here's a rundown of some of the options available and when it might make sense to use them.

Luggage Shipping Specialists

Companies such as Luggage Forward, Luggage Concierge, Luggage Free, and The Luggage Club offer dedicated door-to-door service, most for both domestic and international shipping. Prices can be high. For example, Luggage Forward charges \$350 to ship a carry-on bag overnight from New York to Los Angeles and back, including door-to-door pickup and delivery.

LugLess, which is owned by Luggage Forward, is a budget service that uses an algorithm to find discounts with FedEx and UPS. Customers take their luggage to a local drop-off point or arrange for it to be picked up for an added fee.

If you're at least five days

from departure and have a modest amount of gear, you may be able to beat the airlines on price. For example, shipping two bags from Houston to Milwaukee costs \$39.99, or \$19.99 per bag. (For this rate, you drop off and pick up yourself.)

CR'S TAKE: *These companies offer convenience but can still be very pricey compared with the airlines.*

Standard Delivery Options

You can also use FedEx, UPS, and the U.S. Postal Service to ship your gear, but unlike the airlines' prices, the cost is determined by distance. For instance, it would cost about \$48 to have a 40-pound bag picked up and shipped from New York to Cleveland via UPS, but about \$100 to send it all the way to Los Angeles.

CR'S TAKE: *You'll get a tracking number so that you'll know where your bag is at all times, but there's far less personal service than with luggage shipping specialists. And it could take up to a week to see your belongings again upon return.*

A Concierge Service

DUFL stores your travel wardrobe at its warehouse. When you're ready to travel, you use the company's app to choose the items you want, and it will pack and ship them to your hotel in three days (or overnight for an added fee). At the end of your trip, DUFL will collect your bags and clean and store your clothing until your next trip. Rates start at \$99 round-trip per bag for domestic travel, plus a \$9.95 monthly fee. DUFL Sports stores items like surfboards and bikes; prices depend on the type of equipment.

CR'S TAKE: *It eliminates the hassle of packing, but not everyone has a separate travel wardrobe or the cash for this convenience.*

—Barbara Peterson

fee, which can range from \$95 to more than \$500, depending on the card. For example, flyers who carry the Gold Delta American Express SkyMiles card can check in one suitcase at no additional charge (worth up to \$60 in savings on round-trip flights) when they fly Delta. They also get to be among the first to board, meaning they won't have to compete for overhead bin space. There's no annual fee the first year, and it's \$95 after that.

The Delta Reserve American Express card offers early boarding, free checked bags for up to eight members of the cardholder's traveling party, access to airport lounges for the cardholder, and other benefits for \$550 a year. The Citi/AAdvantage Executive World Elite Mastercard offers many similar perks to American Airlines ticket holders for \$450 a year.



CARRY A PILLOWCASE AND CUSHION

If your airline provides you with a pillow, it might not come with a clean cover, which means you could end up with one slobbered on by a previous passenger. Your own pillow may be too bulky to carry onboard, but stowing a small pillowcase in your carry-on won't take up much room and can make standard-issue airline pillows seem cleaner and more appealing.

A lightweight and portable seat cushion can also provide added comfort, especially on long flights. "I bring a memory foam seat pad with me when I know I'll be flying long distances in economy class,"

says George Hobica, the founder of Airfarewatchdog.

Carry-on rules can be strictly enforced, so make sure that any cushion you bring can be placed in—or snapped onto—your carry-on bag.



BRING NOISE- CANCELING HEADPHONES

A good set will offer some peace and quiet by reducing the sounds of engine drone, crying babies, and chatty passengers. CR's highest-rated wireless portable headphones are the Bose QuietControl 30, \$300, which earn a rating of Excellent, with an Overall Score of 87. The Audio-Technica ATH-ANC100BT headphones, \$100, are a CR Best Buy with an Overall Score of 68 and a rating of Very Good.



CREATE A COMFORT KIT

Most airlines give premium passengers amenity kits to make them feel pampered. (Delta even offers pared-down versions to passengers in the main cabin.) To make your own, pop travel-sized items into a zippered cosmetics case (toothbrush, toothpaste, lotion, hand sanitizer, wipes, and lip balm), plus an eye mask, earplugs, a comb or brush, and a pair of no-show or ankle-high socks to keep your feet warm when your shoes are off.

—Octavio Blanco



Concerns for Flying Families

IT MAY BE hard to believe, but it's legal for a U.S. airline to seat a toddler far away from its parents on a flight. CR reviewed more than 100 consumer complaints related to family seating filed with the Department of Transportation from March 2016 through November 2018 and uncovered multiple cases in which children under 5 years old were seated apart from the adults traveling with them. In 12 cases, children 3 years old or younger were separated from their parents; in two cases, children as young as 1 were seated apart from their parents. There were also occasions in which airlines refused to seat children who suffered from seizures or were autistic next to their parents.

Among the concerns parents voiced in their complaints to the DOT were that they wouldn't be able to assist their children in an emergency and that children sitting on their own would be at risk for sexual assault. (The FBI has investigated cases in which victims of sexual assault on airplanes were as young as 8 years old.) In some of the complaints, parents who were separated from their children said they resorted to asking strangers to trade seats. When that failed, families were asked to leave the plane or they chose to leave out of concern for their children.

Airlines often imposed or attempted to impose additional fees to allow parents to sit with young children, says William J. McGee, an aviation adviser to CR who reviewed the complaints. In the worst cases, families who had to rebook their flight to ensure they were seated together paid thousands of dollars more than their original fare. In one instance a family paid \$4,341 more; in another, the additional cost came to \$14,084.

As part of the Federal Aviation Administration Reauthorization Act,

[CONTINUED ON PAGE 48]

What Does a Lifetime Warranty Really Cover?



Luggage takes a beating. It's lobbed from the cargo hold to the runway in blizzards and monsoons, and wheeled mercilessly over cobblestones and off of high curbs. All of this abuse makes the lifetime warranties offered by some top-scoring luggage brands, including Away, Briggs & Riley, and Eagle Creek, definitely appealing. But what do they really cover?

In our most recent survey of more than 38,000 CR members, 30 percent had complaints about luggage, including broken zippers, handles, and wheels, split seams, and materials that wore out. The good news is that—generally speaking—lifetime warranties will cover all of those problems. But as with most warranties, there are exclusions.

Here are things to keep in mind when purchasing a bag with a lifetime warranty. —Kevin Doyle

How long is a lifetime? Some lifetime warranties, such as Eagle Creek's, cover a bag only for its product life. In this case, a manufacturer may refuse to repair or replace a bag it determines has reached the end of that life. That means buying a suitcase with a lifetime warranty doesn't ensure you'll never have to purchase another one. Away and Briggs & Riley say that they place no such limitation on their warranties.

Exclusions: In general, lifetime warranties don't cover cosmetic damage, such as scuffs, stains, scratches, dents, and other "wear and tear" that doesn't affect the bag's functionality. And lifetime warranties sometimes apply only to the original owner. Away, for instance, doesn't cover bags purchased secondhand or from unauthorized retailers. Briggs & Riley and Eagle Creek, however, say they will repair their bags free of charge regardless of whether they were purchased new or used.

Repair vs. replacement: Companies generally reserve the right to repair a bag and will replace it only if a fix isn't possible. Replacement bags may be a similar but not identical model, and may also be a different color.

Shipping costs: Repair and replacement may be free; shipping may not be. Eagle Creek and Briggs & Riley, for instance, require consumers to pay for shipping a bag to their repair facilities but will pay the return shipping costs. Away will pay all shipping charges.

Proof of purchase: Away requires proof of purchase for a bag to be covered by its limited lifetime warranty. Briggs & Riley and Eagle Creek require no such documentation.

[CONTINUED FROM PAGE 46]

Congress directed the Department of Transportation in 2016 to review family-seating policies and, if appropriate, require airlines to enable families to sit with their young children at no extra cost. But more than three years later, the agency says it has no plans to ask airlines to make any changes to their family-seating policies.

The DOT announced in a public statement that it had determined new rules weren't necessary because less than 1 percent of the airline-related complaints it received from June 2016 through May 2017 were about family seating. Instead of enacting new rules, the agency added a new section to its website offering advice to families about sitting together and links to individual airline websites for more information about their family-seating policies.

"This is a serious issue that should not be dismissed based on the number of complaints filed with the DOT," says Anna Laitin, director of financial policy at CR. She says that children being seated apart from their parents is a growing problem, largely because obtaining an advance seating assignment has become more complicated and expensive. Today's lowest fares typically don't allow passengers to reserve a seat in advance, and purchasing tickets that include a seating assignment can be cost-prohibitive for some, Laitin says.

Without new regulations, the only way to guarantee that your family will sit together is to pay for seat assignments (or to secure advance boarding on Southwest, possibly for a fee), McGee says. But following these tips can help you avoid unpleasant surprises and increase the chance you'll fly together as a family, even if you don't pay extra.



KNOW WHAT YOU'RE BUYING

The lowest-priced tickets—such as Basic Economy—usually don't include a seat assignment. Seats for these fares aren't assigned until much closer to departure (sometimes at the gate), and requests regarding location might not be honored. Airlines provide this information to consumers who book online, but some parents may still assume that an airline will seat them with their children. The complaints submitted to the DOT show that parents can't make that assumption.



BOOK EVERYONE ON THE SAME RESERVATION

If you book family members on more than one reservation, airlines might not know that you're traveling together. Also, be sure to confirm your seating assignments (if you have them) before you go to the airport. They could change at the last minute if, for example, a different type of aircraft is used.



ALERT THE AIRLINE

If you don't want to pay to get seat assignments, try calling a reservations agent at the same time you're booking your flight online to inform him or her that you're traveling with children. (You may incur a fee.) The airline isn't required to seat you together, but the agent may be able to accommodate

your request or make a note in the reservation, which could help you later.

Similarly, if your ticket was booked on a third-party site and not directly with an airline, contact reservations to let an agent know you're traveling with children. McGee urges parents to do this as early as possible. Flights operate so full these days that there's little wiggle room if you don't arrange for seating in advance.



ARRIVE EARLY

Get to the airport at least a couple of hours before departure for domestic flights. You'll have more time to try to work out a solution if you need to.



APPEAL TO AN AGENT

If you don't realize until you arrive at the airport that you and your children are separated, talk with a gate agent. Airlines for America, a U.S. airline trade association, says that it's possible for families to sit together without incurring additional charges, but that airlines leave it up to customer-service employees to make seating arrangements on a case-by-case basis.



FILE A COMPLAINT

If you've had a problem, file a complaint as soon as possible. You can notify both Consumer Reports and the Department of Transportation by going to **CR.org/familytravel**. —Donna Rosato



Increase Your Luggage IQ

Travel can be even harder

on your luggage than it is on you. Department of Transportation statistics suggest that luggage problems are rare: Only about 3 in 1,000 travelers reported that their bags had been lost, damaged, delayed, or stolen in 2018. But it can certainly spoil your vacation and be costly when something does go wrong. Follow these strategies to improve the odds that your bag and belongings will survive every journey unscathed.

Pack with care. A leaky bottle of perfume or sunscreen can ruin the lining of your suitcase. To avoid damage to your bag or its contents, pack liquids in a sealable plastic bag. And secure or remove shoulder straps or other attachments that could be snagged by a baggage conveyor belt or carousel.

Use the right lock. Luggage passes through a lot of hands—not all of them honest—from the time you check it until you pick it up. “Before you leave home, think about who is coming into contact with your luggage,” says Micah Lewis, founder of My Bag Check, a pickup and storage service in New York City. Lewis says

he always recommends that customers use luggage locks to protect the contents of their bags, but notes that less than half of them do.

If you’re checking your suitcase with an airline, be sure to use a lock that’s labeled “TSA compatible” so that agents can open it with a master key if it’s selected for scrutiny. (The Transportation Security Administration selects about 10 percent of all checked baggage for additional screening, according to a spokesperson.) Screeners will break non-TSA-compatible locks, including those that are built into luggage, in order to open suitcases for additional screening. That could damage luggage.

Go undercover. Secure Wrap and other companies at various international airports will tightly encase your luggage in a cling-wrap type of plastic starting at about \$15 for a standard-sized suitcase. The wrapping will reduce the chances of damage and pilfering. But if the TSA removes the wrapping to look inside, not all companies will rewrap the bag. (Secure Wrap says it will.) Another simple and affordable way to guard against scuffs and scratches is to buy a protective cover to encase your bag. Luggage protectors are widely available online and range from clear plastic sleeves to patterned fabric wrappers.

Stand out in a crowd. A lot of luggage looks alike, and bags sometimes go missing because they’re mistakenly picked up by a fellow passenger. If that happens, you’ll probably get the bag back but only after a lot of annoyance. Attaching a brightly colored ribbon, luggage sticker, or even some vivid duct tape to your

luggage can send a hands-off signal to other travelers.


Track your bags with an app.

The mobile apps of some airlines, including Delta and United, let you track your bag’s journey from check-in to arrival. (The ability to track your checked bags will probably increase as the technology that makes it possible becomes more widely adopted by airlines.) You can also purchase GPS-powered baggage tracking devices designed to allow you to keep tabs on your bag with an app. (CR hasn’t tested them.)

Leave valuables at home.

If something happens to your bag, the airline is responsible for compensating you—to a point. In the U.S., airlines are liable up to a total of \$3,500 for lost, damaged, or delayed baggage and contents. On international flights, the limits are roughly \$1,500 per checked bag. But there’s a *very* long list of items that aren’t covered by most airlines, including electronics, cameras, jewelry, and computers. If you must travel with valuables, don’t check them; carry them with you. If you do check them, know whether your homeowners insurance will cover their loss or damage, and for how much. (Certain credit cards may also provide limited coverage.) Some airlines sell excess valuation coverage, which increases the maximum amount of compensation they’ll provide, but exceptions for valuable items still apply. Always keep a record of what you packed; it’s easy to simply photograph the contents before you place them in your bag. This should help if you have to confirm that an item is missing or need to file a claim for a lost or damaged suitcase.
—B.P.

Ratings ➤ **Get Packing** These brand ratings of carry-on and checked luggage are based on a survey of more than 38,000 CR members.

Brand	Reader Survey Results					
	Overall satisfaction score	Ease of carrying	Wheelability	Ease of packing	Durability	Stowability

CARRY-ON


Briggs & Riley	92	⬆	⬆	⬆	⬆	⬆
Away	91	⬆	⬆	⬆	⬆	⬆
Eagle Creek	91	⬆	⬆	⬆	⬆	⬆
Ebags	91	⬆	⬆	⬆	⬆	⬆
Hartmann	89	⬆	⬆	⬆	⬆	⬆
Tumi	89	⬆	⬆	⬆	⬆	⬆
L.L.Bean	89	⬆	⬆	⬆	⬆	⬆
Travelpro	88	⬆	⬆	⬆	⬆	⬆
Eddie Bauer	88	⬆	⬆	⬆	⬆	⬆
IT Luggage	88	⬆	⬆	⬆	⬆	⬆
Rick Steves	87	⬆	⬆	⬆	⬆	⬆
Victorinox	87	⬆	⬆	⬆	⬆	⬆
Heys	87	⬆	⬆	⬆	⬆	⬆
Ricardo Beverly Hills	86	⬆	⬆	⬆	⬆	⬆
Samsonite	86	⬆	⬆	⬆	⬆	⬆
London Fog	85	⬆	⬆	⬆	⬆	⬆
Delsey	85	⬆	⬆	⬆	⬆	⬆
Swiss Gear	85	⬆	⬆	⬆	⬆	⬆
Skyway	84	⬆	⬆	⬆	⬆	⬆
Atlantic	84	⬆	⬆	⬆	⬆	⬆
American Tourister	84	⬆	⬆	⬆	⬆	⬆

CHECKED

Briggs & Riley	91	⬆	⬆	⬆	⬆	NA
Rimowa	90	⬆	⬆	⬆	⬆	NA
Eagle Creek	89	⬆	⬆	⬆	⬆	NA
L.L.Bean	88	⬆	⬆	⬆	⬆	NA
Travelpro	87	⬆	⬆	⬆	⬆	NA

HOW WE SURVEY: The ratings are based on our Fall 2018 survey, in which 12,626 CR members responded to satisfaction questions on carry-on suitcases and 25,551 responded to satisfaction questions on checked suitcases. The **Overall satisfaction score** represents overall satisfaction with the suitcase

and is not exclusively determined by the other factors under the reader survey results. An Overall satisfaction score of 100 would mean all respondents were completely satisfied; 80, that respondents were very satisfied, and 60, that respondents were somewhat satisfied, on average. The color tiers are

Brand	Reader Survey Results					
	Overall satisfaction score	Ease of carrying	Wheelability	Ease of packing	Durability	Stowability

CHECKED *Continued*

Hartmann	86	⬆	⬆	⬆	⬆	NA
Tumi	86	⬆	⬆	⬆	⬆	NA
Ebags	86	⬆	⬆	⬆	⬆	NA
Victorinox	85	⬆	⬆	⬆	⬆	NA
Eddie Bauer	85	⬆	⬆	⬆	⬆	NA
Lands' End	85	—	—	⬆	⬆	NA
Traveler's Choice	85	⬆	⬆	⬆	⬆	NA
Skyway	84	⬆	⬆	⬆	⬆	NA
Pathfinder	84	⬆	⬆	⬆	⬆	NA
Samsonite	84	⬆	⬆	⬆	⬆	NA
Swiss Gear	83	⬆	⬆	⬆	⬆	NA
Delsey	83	⬆	⬆	⬆	⬆	NA
Kenneth Cole	83	⬆	⬆	⬆	⬆	NA
IT Luggage	83	⬆	⬆	⬆	⬆	NA
Ricardo Beverly Hills	83	⬆	⬆	⬆	⬆	NA
Heys	83	⬆	⬆	⬆	⬆	NA
High Sierra	83	⬆	⬆	⬆	⬆	NA
London Fog	83	⬆	⬆	⬆	⬆	NA
Jaguar	82	⬆	⬆	⬆	⬆	NA
American Tourister	81	⬆	⬆	⬆	⬆	NA
Olympia	81	⬆	⬆	⬆	⬆	NA
Atlantic	80	⬆	⬆	⬆	⬆	NA
Dockers	80	⬆	⬆	⬆	⬆	NA
Chaps	80	⬆	⬆	⬆	⬆	NA
Nautica	79	⬆	⬆	⬆	⬆	NA
Protocol	79	⬆	⬆	⬆	⬆	NA
Air Canada	77	⬆	⬆	⬆	⬆	NA

determined by the overall distribution of scores for each category. Differences of fewer than 4 points aren't meaningful for carry-ons; differences of fewer than 5 points aren't meaningful for checked suitcases. Each rating category under **Reader Survey Results** reflects average scores on a scale from completely

dissatisfied to completely satisfied. Ratings are based on CR members, who may not be representative of the general U.S. population. A dash "—" indicates we lacked sufficient data.



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

ROAD REPORT

DASHBOARD DECODER

What Does
This Icon
Mean?



- ❑ YOU'RE TRAVELING FASTER THAN A SPEEDING BULLET
- ❑ THE AUTOMATIC HIGH-BEAM FEATURE IS ACTIVATED
- ❑ GIANT SQUID DETECTED AHEAD
- ❑ HORN AMPLIFIER IS ON

This is the symbol for the automatic high-beam function, which automatically turns the high-beam headlights on and off. We like this feature: The added visibility of high beams gives drivers more time to react. But fewer than 1 in 5 drivers (18 percent) use them when they should.

ASK OUR EXPERTS

What's the best way to keep my car clean in the winter?



Wash your car every two to four weeks to help prevent the corrosive effects of road salt.

Use a "touchless" or "brushless" car wash.

Brushes can cause salt, sand, and other winter grime to scour the paint surface.

Pay extra for undercarriage cleaning, but skip the wax and tire treatments, which won't last long.

Keep sensors free of snow, ice, and grime between washes so that safety systems work properly.

Top off your windshield washer fluid with a winter blend, which won't freeze and may help to clear salt mist, ice, and snow from the windshield.

THE VITAL STATISTIC

9

Average number of additional feet it takes a hybrid sedan to stop on dry pavement vs. a non-hybrid version of the same model. Hybrid SUVs take an average of 4 additional feet.

Source: CR testing data.

RECALL



GM SUVs and Pickups

General Motors is recalling 652,967 Chevrolet and GMC pickup trucks and SUVs because a faulty sensor may cause a wheel to brake unexpectedly, which could lead to a crash. The recall is for 2014-2018 Chevrolet Silverado and GMC Sierra pickups, and 2015-2020 Chevrolet Suburban, Chevrolet Tahoe, and GMC Yukon SUVs. Only models with a 5.3-liter engine, four-wheel drive, and a 3.08-ratio rear axle are affected.

What to do: Dealers will reprogram software free of charge. GM's number for this recall is N192261050.

AHEAD OF THE CURVE

Affordable Cars With Advanced Safety Systems

Automatic emergency braking, pedestrian detection, and forward collision warning systems save lives and shouldn't—CR believes—cost extra. Advanced safety features come standard on these CR recommended 2020 models, which have a base price of less than \$25,000*.

**Kia
Forte**
\$20,165

66

OVERALL
SCORE

**Hyundai
Elantra**
\$20,630

67

OVERALL
SCORE

**Toyota
Corolla**
\$23,530

75

OVERALL
SCORE

Mazda3
\$24,115

68

OVERALL
SCORE

*Prices listed are for the versions CR tested.

Making Cars Safer for Women

Women are at higher risk of injury or death in a car crash, and yet auto safety testing is still geared almost exclusively toward men. Why have safety regulators and automakers continued to ignore women—and what must be done to provide better protection?

by Keith Barry

THE FACE OF a crash test dummy looks eerily vacant. With indents instead of eyes, a pointy nose, and permanently pursed lips, it appears remarkably expressionless—especially considering it's about to hurtle toward a stationary barrier at speeds as high as 40 mph.

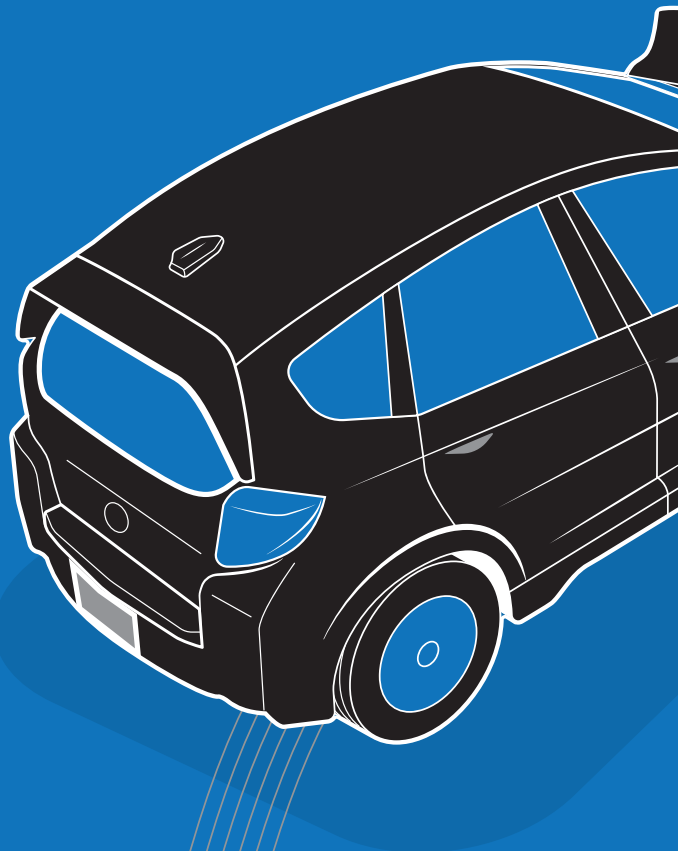
You might assume from its lack of distinguishing features that a crash test dummy is an avatar for all humanity. But despite the blank faces, most of the dummies used in automotive crash tests by the government and the insurance industry—the tests that determine whether a car gets a coveted five-star

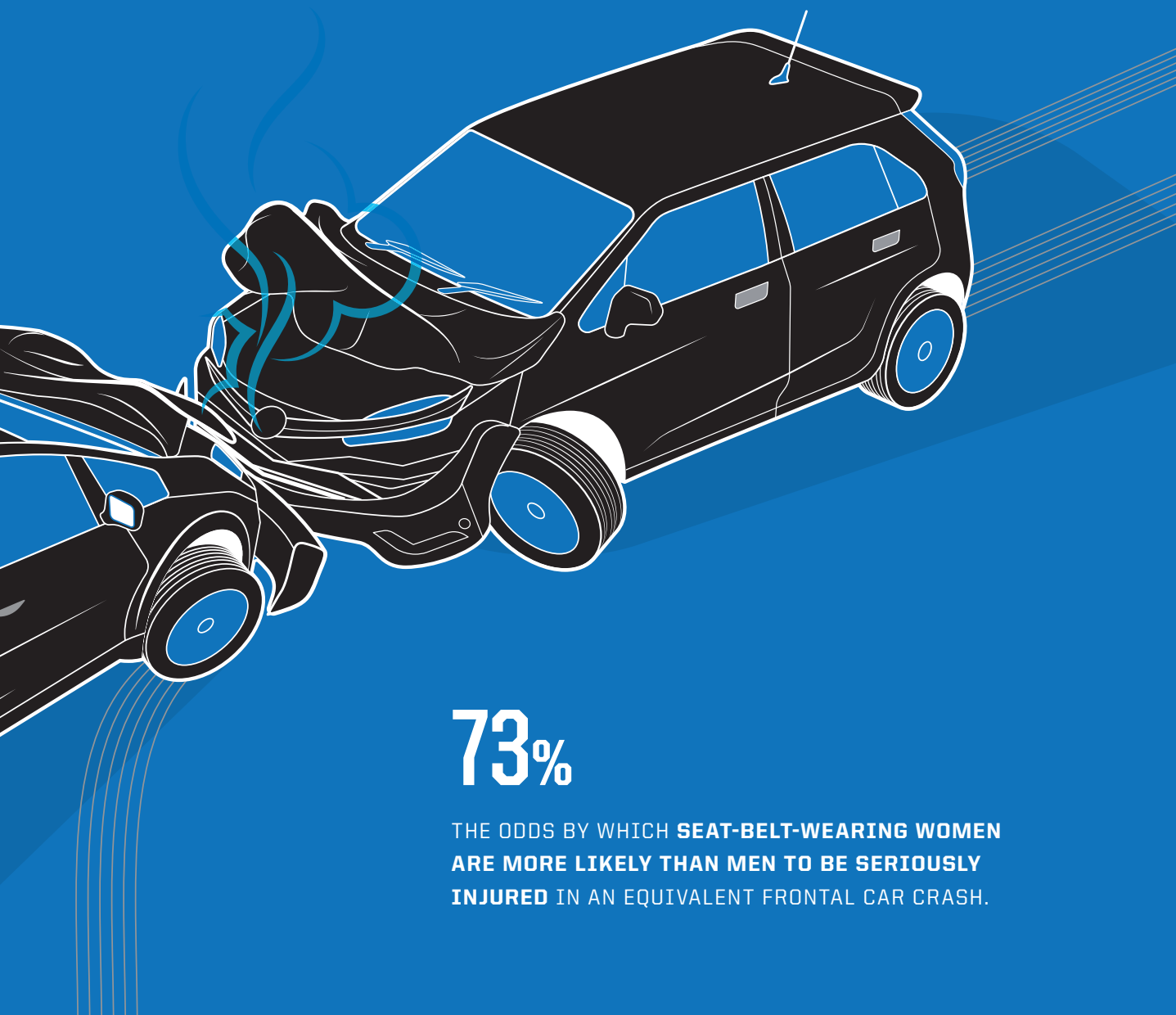
safety rating or is named a top safety pick—represent a very specific man.

Even though female and male bodies react differently in crashes, an average adult female crash test dummy simply does not exist, despite the fact that women obviously drive to work, take road trips, and ride in cars with friends. That absence has set the course for four decades' worth of car safety design, with deadly consequences.

Although the majority of Americans killed or injured in car crashes are male, the raw data masks the fact that females are actually at greater risk of

death or injury when a crash occurs. Data from the National Highway Traffic Safety Administration (NHTSA) and the Federal Highway Administration (FHWA) show that males drive more miles than females and are more likely to engage in risky behavior, such as speeding, driving under the influence of alcohol, and not wearing a seat belt. But a study from NHTSA shows that a female driver or front passenger who is wearing her seat belt is 17 percent more likely than a male to be killed when a crash takes place. And a 2019 study from the University of Virginia (UVA)





shows that for a female occupant, the odds of being injured in a frontal crash are 73 percent greater than the odds for a male occupant. That's controlling for occupant age, height, and body mass index, in addition to collision severity and vehicle model year.

These alarming numbers suggest an urgent safety issue, but the problem is neither new nor unfamiliar to regulators and automakers. "These same trends have been observed in many, many studies in the past," says Jason Forman, Ph.D., who is a principal scientist with the Center for Applied

Biomechanics at UVA and led that 2019 survey of injury disparities.

In fact, researchers have understood since at least the early 1980s that male and female bodies perform differently in crashes, but the vast majority of automotive safety policy and research is still designed to address the body of the so-called 50th percentile male—currently represented in crash tests by a 171-pound, 5-foot-9-inch dummy that was first standardized in the 1970s. (Today, the average American man is about 26 pounds heavier.)

Regulators asked for a female dummy

in 1980, and a group of automakers petitioned for one in 1996, but it took until 2003 for NHTSA to put one in the car. Even then, it's just a scaled-down version of a male dummy that represents only the smallest 5 percent of women by the standards of the mid-1970s—so small that it can work double-duty as a 12- or 13-year-old child. Furthermore, no dummy takes into account the biological differences between male and female bodies.

In frontal crash tests performed by both NHTSA and the Insurance Institute for Highway Safety (IIHS),

this 5th percentile female dummy either rides as a passenger or doesn't participate in the test at all. (The female dummy sits in the driver's seat for some side-impact tests.) This, despite the fact that women now represent almost 50 percent of drivers in the U.S., according to the FHWA.

Because automotive design is directly influenced by the results of safety testing, any bias in the way cars are crash-tested translates into the way cars are manufactured. So if safety tests don't prioritize female occupants, carmakers won't necessarily make changes to better protect them.

"The reality of progress in automotive safety is that it heavily relies on regulation," says Emily Thomas, Ph.D., automotive safety engineer at Consumer Reports' Auto Test Center. "Unless the federal motor vehicle safety standards require dynamic crash testing with average-sized female crash dummies in multiple seating positions, driver side included, the dummy industry and automakers won't make that leap themselves."

The Three Stages of a Crash

Automotive safety experts look at car crashes in three distinct stages. The first stage is the vehicle crash—the impact of a car or truck into a foreign object. Stage two is the human crash, when the bodies of the vehicle's occupants come into contact with seat belts and airbags—or worse, the dashboard, windows, or some other

object. The third stage is the internal crash, which refers to the collisions of organs, bones, and soft tissue that happen within the human body.

According to Consumer Reports' Thomas, the crash energy that isn't absorbed by the vehicle in that first stage is then transferred to the occupants. "Vehicle restraint systems, like seat belts and airbags, are intended to limit motion and that transfer of energy," she says. "But to do that effectively across a range of body types, carmakers and crash testers need to consider not just the size of different occupants but also the material properties of their bodies."

That means crash-testing cars with dummies that represent a variety of body types, Thomas says, and ones that can account for the physiological differences between males and females.

"Females are not just smaller versions of males," says Kristy Arbogast, Ph.D., the co-scientific director of the Center for Injury Research and Prevention at the Children's Hospital of Philadelphia, who also sits on the board of the Association for the Advancement of Automotive Medicine. "They're put together differently. Their material properties—their structure—is different."

According to the Centers for Disease Control and Prevention, today's average woman is 5.4 inches shorter and 27 pounds lighter than the average man. As a result, women may sit closer to the steering wheel or wear their seat belts differently from men. But

differences aren't just about shape, size, and position. For example, the geometry of the female pelvis is different from the male pelvis, and the male neck can better withstand forces that bend it.

Even the internal makeup of female bones can be different from that of male bones. Because crash injuries and fatalities are often related to bone fractures, this may explain some of the disparities between the sexes.

Biomechanical engineers and anthropologists are still struggling to understand other biological variations between male and female bodies that determine how they will react in a car crash. Crashes are chaotic events, and even two occupants of the same height, weight, and sex may experience a crash differently. Research shows that in addition to women, elderly vehicle occupants are also more vulnerable in a crash, as are larger drivers and occupants. But there are specific differences in how male and female bodies react to crashes—and in some cases the cause is unclear.

Consider whiplash. Women are up to three times more likely to suffer whiplash injuries than men, but real-world crash data show that many vehicle seats specifically designed to prevent whiplash injuries are actually less likely to help female occupants.

In the late 1990s, automakers developed two kinds of safety systems designed to protect against whiplash. One, used primarily by Volvo, is designed to absorb crash energy in the seatback and head restraint. It reduced life-altering whiplash injuries for both male and female occupants but proved to be slightly more effective for females. (Toyota uses a similar design.) The other design, used by many other manufacturers, uses only a moving head restraint to diminish the movement of the head and neck in rear impacts. Though it reduces life-altering whiplash crash injuries up to 70 percent for male occupants, it has no benefit for females.

17%

THE PERCENTAGE BY WHICH **FEMALE DRIVERS AND FRONT PASSENGERS ARE MORE LIKELY TO BE KILLED** IN A CAR CRASH THAN MALE OCCUPANTS OF THE SAME AGE.

Blind Spots in Crash Testing

It's an open secret in the automotive industry that automakers engineer their cars specifically to pass crash tests. That's why it's critical for tests to represent how cars are used in the real world.

"When regulators or testing organizations set a new bar for crash safety, most automakers quickly change their designs so that their cars ace the new test," says David Friedman, vice president of advocacy at Consumer Reports and a former NHTSA administrator.

That's what happened in 2012, when the IIHS, an independent crash testing agency funded by insurance companies, added a new evaluation, the small-overlap test. The test simulates a crash where the front driver-side corner of a vehicle collides with another vehicle or a tree or utility pole. As soon as the test was announced, some automakers began redesigning the next generation of vehicles to score well by improving vehicle structures and airbags. But those changes were made only to the driver's side of the vehicle, where that test was targeted. That prompted the IIHS to introduce a passenger-side version of the test in late 2017. For the current model year, every one of those cars tested in 2012 now gets a Good or Acceptable score, thanks to design changes.

When asked why it doesn't use an average adult female dummy in its testing, a NHTSA spokesperson provided a written statement to CR saying that the agency already addresses inequality in crash outcomes by requiring the use of a 5th percentile female dummy.

The agency's use of 5th percentile female and 50th percentile male dummies represents "a broad spectrum of occupant crash protection rather than merely focusing on median body types," its statement said. "Currently, NHTSA is focusing its research in new advancements in both sizes of crash test dummies, including the use of advanced instrumentation and criteria designed to



**'NHTSA IS FAILING
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ARE INVOLVED IN AN
AUTOMOBILE CRASH.'**

REPRESENTATIVES KATHY
CASTOR (D-FLA., ABOVE) AND JAN
SCHAKOWSKY (D-ILL.) IN A LETTER
TO NHTSA LAST NOVEMBER

better mitigate respective injury risks."

The Auto Alliance, a trade group that represents many large automakers in the U.S., told CR that the group does not believe that a 50th percentile female dummy would "significantly change any real-world restraint system designs," Wade Newton, a spokesman for the group, wrote in an email.

Decades of Delays

NHTSA and the IIHS are both evaluating a new set of dummies, called THOR, or Test device for Human Occupant Restraint (see the May 2019 issue of CR for more on the THOR program). They have been in development since the 1980s and may be used in European crash tests as soon as this year. They'll be able to collect more data than the current dummies, known as the Hybrid III series, and the 5th percentile female version of the THOR dummy has been designed to better mimic an actual human female body.

However, there are currently no plans for an average female THOR. Even if regulators demanded one today, researchers would first need to collect real-world injury data from female occupants to identify patterns: Which injuries happen most often? Which are most severe? Then they would have to recreate those specific patterns and mechanisms in the laboratory with animals or human cadavers, a process experts say could take at least 20 years.

"Building the dummy doesn't necessarily take that long," says Becky Mueller, a senior research engineer at the IIHS. "But to be able to relate what the dummy is measuring back to real-world injuries takes years and years of real-world data collection."

Astrid Linder, Ph.D., a professor at Chalmers University in Sweden and the research director of traffic safety at the Swedish National Road and Transport Institute, agrees that the length of time it could take to build a new female dummy is frustrating, but she says that is not an excuse for delaying the work further.

"This was the answer I got 20 years ago when I did a review as a Ph.D. student," she says. "There is no data that isn't possible to collect. Go ahead and do it. We know how to do it."

Linder has been leading efforts in Europe to address differences in crash outcomes between male and female

vehicle occupants. She says that we need to start work on an average female dummy to determine what information we don't know. "If you wait for all data to be available, then we will wait forever," she says.

One way that automakers and safety advocates are addressing inequality in the short term is by developing computer models that can simulate how human bodies of different shapes, sizes, or sexes react in a crash. This approach is already in use by some automakers, including Toyota and Volvo. Volvo developed a computer model of an average pregnant female in the early 2000s and worked with Chalmers University to create a computer model of an average-sized female to develop its whiplash protection system—the very same one that prevents injury equally for both men and women.

"If you want to run a crash test, you have to build a car first, then you have to spend the time to instrument it, and of course you put the dummy in and run the test," says Jason Hallman, Ph.D., a principal engineer in Toyota's research and development department. "If you want to, say, shift the posture or put in a different-sized dummy, you have to do the process over again." By comparison, Hallman says that running a test with a computer model of a human body can take about a week, although the underlying research behind that model often represents years of work.

Linder says she expects computer models to become more prevalent, but she emphasizes that a virtual human is no substitute for an actual dummy. "As long as we humans are the ones using the cars, then we need to confirm in physical testing that this is actually representing the physical world," she says. Therefore, those physical tests must also include female dummies. "If you exclude half of [occupants], you can only confirm for half of

WAYS WOMEN ARE AT HIGHER RISK

Real-world crash data show that women are more likely to be injured in a car crash than men, but safety researchers are just beginning to understand why. And unless crash tests better prioritize women, some of the disparities will continue to be a mystery.



LEGS

79.7%

HIGHER RISK FOR INJURY
THAN MEN (±16.3%)*

Female drivers are more likely than males to have leg injuries in a crash when the floor of the car deforms, or due to crash forces transmitted through the gas or brake pedals. In the rear seat, female passengers are especially vulnerable to injuries when their legs collide with the backs of the front seats.

ARMS

58.2%

HIGHER RISK FOR INJURY
THAN MEN (±20.6%)*

Female drivers are highly vulnerable to arm injuries in a crash due to contact with the steering wheel and/or airbag, and women in the rear seat are more likely than men to experience shoulder fractures. These injuries may not be life threatening, but they can seriously impair quality of life.

NECK

44.7%

HIGHER RISK FOR INJURY
THAN MEN (±34%)*

The structure of the female spinal column is generally not as strong as a male's but still has to support a head that weighs almost as much. In addition, many anti-whiplash head restraints are more effective for men than for women.



ABDOMEN

38.5%

HIGHER RISK FOR INJURY
THAN MEN ($\pm 28.4\%$)*

Data suggest that rear seat belts may be better at protecting men than women from abdominal injury. Still, wearing a seat belt is a life saver for all vehicle occupants—including women.

CHEST

26.4%

HIGHER RISK FOR INJURY
THAN MEN ($\pm 13.6\%$)*

Especially in the rear seat, women are more vulnerable to chest injuries and rib fractures. Although researchers know that ribs differ due to factors such as age and sex, they are unsure how those differences translate to how ribs react to crash forces.

BONES

The internal structure of female bones differs from male bones. Because crash injuries and fatalities are often related to bone fractures, this can explain some of the disparities between the sexes. Bones change over time, as well. "People assume that bone is this dead, static structure in your body, but it's definitely not," says Mandy Agnew, Ph.D., a biological anthropologist and director of the Skeletal Biology Research Lab at the Ohio State University Injury Biomechanics Research Center. "It's sensing loads constantly and altering its size and shape to meet those needs, so it's quite dynamic."

PELVIS

The female pelvis has a different geometry than the male pelvis. That's one of the many reasons dummy designers can't simply change the external proportions of a male crash test dummy to turn it into an average female. It's important for crash test dummies to be biofidelic—designed so that they mimic the human body in every way. In order to do so, safety researchers need to conduct tests using human cadavers.

PREGNANCY

Car crashes are the leading cause of traumatic fetal death in the U.S. Researchers have created computer models of crash test dummies to represent pregnant vehicle occupants, but these dummies are not yet included in consumer-facing crash tests.

them what you have done in the computer world what corresponds in the physical world,” she says.

The Lesson in Deadly Airbags

Collecting the data and re-engineering America’s crash tests to better represent female occupants could take decades, but with the right motivation, there’s a chance that change could be accelerated. That’s what happened in the late 1990s, when safety regulators and researchers took just two years to fix an airbag issue that was killing children and smaller women.

Between 1996 and 2000, 179 people—including 118 children—were killed by airbags in low-speed crashes that shouldn’t have been fatal. Physicians, automakers, and safety advocates realized they had a problem, and they suspected it had to do with airbags designed to be powerful enough to keep a 50th percentile male in his seat in a crash even if he wasn’t wearing a seat belt, per federal safety regulations.

“I think that really highlighted how far behind we were and how inadequate the testing had been for them to just assume that a 50th percentile male would be sitting there,” Jackie Gillan says. Today, she’s the president emeritus of Advocates for Highway and Auto Safety, a group that lobbies for safer roads and better safety regulations. But in 1996, Gillan was the vice president of the organization, and she worked with automakers, legislators, regulators, and the families of those killed in crashes to help create safer airbags.

In November 1996, NHTSA announced that it would make changes to airbag rules in response to the deaths. Four months later, the agency relaxed testing requirements to allow automakers to rapidly redesign their airbags using a crash sled—which simulates a car crash—instead of costly, time-consuming crash tests of actual vehicles.

Almost half of automakers reduced the power of their airbags between



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EMILY THOMAS, PH.D.,
AUTOMOTIVE SAFETY ENGINEER
AT CONSUMER REPORTS’ AUTO
TEST CENTER

the 1997 and 1998 model years. By September of 1998, NHTSA required automakers to install advanced airbags, which would deploy with a force proportional to the weight of the vehicle occupant. The strategy worked: Starting in 1998, fatalities due to airbags began decreasing appreciably.

According to Gillan, part of the reason for the swift action on airbags was a clear, perceptible harm. “You have all the elements coming together where you had a problem of children being injured, public opinion, congressional interest, and a legal

system that was not going to let this continue,” she says. By comparison, the issue of higher injury and fatality risks for women may feel more abstract and difficult to publicize.

Although fixing an airbag is no easy task, it’s not nearly as complex and nuanced as addressing the multiple factors that make women less safe in crashes. According to Ohio State’s Mandy Agnew, Ph.D., many of the mechanisms behind different injury outcomes between men and women remain unexplored, as are injury risks for other vulnerable groups, such as the elderly and larger drivers and passengers.

“We have to do the basic science; we have to go back to the fundamentals,” she says. “At the same time, we can’t wait for all of the answers to do anything. I think we need to do both in parallel.”

To start the process, regulators such as NHTSA need to act, says Chalmers University’s Linder. If that happens, she estimates that an average female crash test dummy could be included in official crash tests by 2030. “And the industry will take action, and society will take action,” she says. “But the starting point is those decisions made by regulatory bodies.”

Recent studies may have gotten the political process moving. In November of last year, four months after Forman released his UVA study, Congresswomen Kathy Castor of Florida and Jan Schakowsky of Illinois wrote to the acting administrator of NHTSA demanding action.

“NHTSA is failing in its mission if women are almost 75 percent more likely than men to die or receive a serious injury when they are involved in an automobile crash,” Castor and Schakowsky wrote. “This disparity is simply unacceptable and we must act to stop the disproportionate harm to women in automobile crashes.” For additional coverage on this topic, go to [CR.org/carsafety](https://www.consumerreports.org/carsafety).



ROAD TEST

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



COMPACT SUVs

Ford Escape

Still Chasing the Class Leaders

62

OVERALL
SCORE

ROAD-TEST SCORE 73

HIGHS Agility, stopping distance, controls, fuel economy

LOWS Engine vibration, overly sensitive brake pedal

POWERTRAIN 180-hp, 1.5-liter 3-cylinder turbocharged engine; 8-speed automatic transmission; all-wheel drive

FUEL 26 mpg on regular fuel

PRICE AS TESTED \$32,600



LUXURY COMPACT SUVs

Lincoln Corsair

Smooth, Stylish Newcomer

67

OVERALL
SCORE

ROAD-TEST SCORE 82

HIGHS Ride, quietness, powertrain, stopping distance, fit and finish

LOWS Controls

POWERTRAIN 250-hp, 2.0-liter 4-cylinder turbocharged engine; 8-speed automatic transmission; all-wheel drive

FUEL 23 mpg on regular fuel

PRICE AS TESTED \$49,920

THE REDESIGNED ESCAPE is good-looking, with fresh styling that makes it appear more like a raised hatchback than a boxy, utilitarian SUV. We like its handling, standard safety equipment, fuel economy, and controls, but the base engine, ride comfort, and seats are letdowns.

Like its predecessor, the new Escape is one of the few compact SUVs that's agile when driven on winding roads. The base three-cylinder engine is quick to deliver power when needed, whether in town or on a highway. The transmission shifts quickly, although some low-speed upshifts can be felt as a slight bump. Peers like the Mazda CX-5 have smoother-shifting transmissions.

We commend Ford for equipping the Escape with standard forward collision warning (FCW), automatic

emergency braking (AEB) with pedestrian detection, and blind spot warning (BSW). Some automakers still make these features optional.

Most of the controls are large knobs or buttons, and the Sync 3 infotainment system has large text and is easy to use. Plus, Android Auto and Apple CarPlay compatibility is standard.

The Escape does fall short in several areas. The base engine has a pronounced vibration at low revs and during coasting. The ride is rather stiff, with noticeable impact from bumps. All of this combines to make the Escape unsatisfying to drive.

At first blush, the cabin looks inviting. But after driving the SUV for a while, our testers found that the door panels and silver trim were flimsy, the plastic steering wheel felt cheap, and the flat seats were short on back and leg support.

THIS STYLISH NEW MODEL makes a big statement in the small luxury SUV segment with its well-appointed cabin, comfortable ride, and lively, well-matched powertrain.

The Corsair shares a platform with the Ford Escape, but no one would confuse the two. The pricier Lincoln fulfills on the premium promise, delivering refinement throughout.

The Lincoln's meticulous cabin has the stitched leather, glossy trim, and high-quality materials expected in a more expensive luxury SUV.

The Sync 3 infotainment system is easy to use and has large buttons and text, but the push-button gear selector on the dashboard is fussy to operate, and the voice control button on the left side of the steering wheel can be accidentally activated.

An open space under the center console provides

plenty of kneeroom for the driver. But broad-shouldered drivers will find the seat too confining. The backseat provides ample room and can be moved forward or backward to increase legroom or cargo space.

The Corsair's smooth ride and quiet cabin pamper passengers. The SUV's responsive handling makes it a pleasure to drive on curvy roads. We think that the base 250-hp engine and 8-speed automatic transmission deliver plenty of power, and there's no need for buyers to opt for the more expensive 2.3-liter turbocharged four-cylinder engine.

Every Corsair comes with advanced safety systems, including FCW, AEB with pedestrian detection, BSW, and lane keeping assistance (LKA), which can easily be adjusted through the infotainment screen.



LUXURY COMPACT CARS

Mercedes-Benz CLA

Flashy but Flawed

57

OVERALL
SCORE

THE REDESIGNED CLA has a lot in common with the new entry-level A-Class sedan. Even though the CLA is more expensive, the two cars share the same underlying mechanical design and look nearly identical from the front.

Whether you prefer the CLA's longer, tapered tail is a matter of personal preference. One practical benefit of the design is a spacious trunk. But we found the sloping roofline and narrower rear door openings make it hard for passengers to get in and out of the rear seat, which is so small it's almost useless. The CLA's front seats are supportive, but the head restraints can't be adjusted.

We like how the CLA's balanced handling gives the driver a good sense of control. Yet that comes at the expense of the ride, which is harsh and does a poor job at absorbing bumps. The CLA was quick

ROAD-TEST SCORE 65

HIGHS Handling, fit and finish

LOWS Ride comfort, controls, access, rear seat

POWERTRAIN 221-hp, 2.0-liter 4-cylinder turbocharged engine; 7-speed dual-clutch automatic transmission; all-wheel drive

FUEL 27 mpg on premium fuel

PRICE AS TESTED \$44,390

in our acceleration tests but felt sluggish when driving in lower-speed urban traffic. It also suffers from some lurching hesitation during stop-and-go driving.

To its credit, the CLA has excellent interior fit and finish. In addition to leather appointments and turbine-like air vents, the cabin has upscale touches, such as multicolored accent lighting and a large, vivid display screen on the dashboard.

However, the touch controls on the screen, steering wheel, and center console are very distracting and make it too easy to accidentally change a display setting or audio source.

Although FCW and AEB are standard, BSW is optional. It's important to note that a well-equipped CLA can approach the cost of the larger, more refined C-Class, which is a better choice overall.



MID-SIZED SUVs

Subaru Outback

Improving a Winning Formula

87

OVERALL
SCORE

ROAD-TEST SCORE 91

HIGHS Ride, transmission, seat comfort, driving position, roof rack with integrated cross bars

LOWS Some controls

POWERTRAIN 260-hp, 2.4-liter 4-cylinder turbocharged engine; continuously variable transmission; all-wheel drive

FUEL 24 mpg on regular fuel

PRICE AS TESTED \$39,572

THIS LATEST OUTBACK adds numerous refinements to a familiar design and increases the appeal of this SUV, which is essentially a raised wagon version of the Legacy sedan.

The Outback has a solid feel with an extremely comfortable ride that outshines some luxury SUVs. The elevated ground clearance and standard all-wheel drive help it navigate the occasional trail. The Outback has responsive handling and feels more agile than the typical SUV. We were impressed with its performance in our accident-avoidance maneuver.

The XT's turbo engine is more satisfying than the base nonturbo engine. It transforms the car, giving it effortless punch with plenty of passing power. The engine pairs well with the continuously variable transmission. This CVT

faithfully mimics traditional gear shifts, and the turbo power masks some of the common quirks found with that type of transmission, such as revs rising much quicker than the speed.

The cabin is quiet and nicely finished, with premium soft-touch elements. The raised vehicle height gives drivers a commanding view of the road. The leather seats on uplevel versions are comfortable and supportive, and the rear seat has plenty of passenger space.

But the infotainment system's large screen is slow to respond to the touch. It takes multiple steps to execute some common climate functions, and the display for Android Auto and Apple CarPlay is small. Standard safety equipment includes AEB, FCW, and lane departure warning (LDW), but BSW is optional.

Ratings ➤ **Safety Included** All but one model (the Chevrolet Blazer) in the select ratings below come standard with forward collision warning and automatic emergency braking.

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	Controls	Cargo volume, cu. ft. suitcases+duffels	
COMPACT SUVs																		
✓	Subaru Forester Premium	84	\$29,341	⬇	⬆	Std. ⬆	90	28	9.2	130	53.0	⬆	⬆	⬇	⬆ / ⬆	⬆	36.5	
✓	Mazda CX-5 Touring	84	\$29,530	⬆	⬆	Std. ⬆	80	24	8.6	133	54.0	⬆	⬆	⬆	⬆ / ⬆	⬆	30.5	
✓	Honda CR-V EX (1.5T)	77	\$28,935	⬇	⬆	Std. ⬆	82	28	8.2	137	52.0	⬆	⬇	⬆	⬆ / ⬆	⬆	36.0	
✓	Chevrolet Equinox LT (1.5T)	76	\$33,730	⬆	⬇	Std. ⬆	78	25	9.6	132	53.0	⬆	⬆	⬆	⬆ / ⬆	⬆	32.0	
✓	Nissan Rogue SV	75	\$29,920	⬆	⬇	Std. ⬆	74	24	9.5	134	54.0	⬇	⬆	⬇	⬇ / ⬆	⬆	31.5	
✓	Kia Sportage LX (2.4L)	75	\$26,720	⬇	⬇	Std. ⬆	78	23	9.6	128	52.5	⬆	⬇	⬇	⬆ / ⬆	⬆	29.5	
✓	Toyota RAV4 XLE (2.5L)	72	\$32,109	⬇	⬇	Std. ⬆	72	27	8.3	131	54.0	⬆	⬇	⬇	⬆ / ⬆	⬆	30.5	
	Hyundai Tucson SEL (2.4L)	67	\$28,530	⬇	⬇	Std. ⬆	75	22	9.6	130	52.5	⬆	⬇	⬆	⬆ / ⬆	⬆	29.5	
	Ford Escape SE (1.5T)	62	\$32,600	⬇	⬆	Std. ⬆	73	26	8.9	128	53.0	⬆	⬇	⬇	⬇ / ⬆	⬆	30.5	
	Volkswagen Tiguan SE	61	\$31,645	⬇	⬇	Std. ⬆	84	25	10.3	131	52.0	⬆	⬆	⬆	⬆ / ⬆	⬆	33.0	
LUXURY COMPACT SUVs																		
✓	Lexus NX 300	80	\$43,284	⬆	⬇	Std. ⬆	74	24	7.5	132	49.5	⬆	⬇	⬆	⬆ / ⬆	⬇	28.5	
✓	BMW X3 xDrive30i	78	\$53,745	⬇	⬆	Std. ⬆	92	24	7.7	128	50.5	⬆	⬆	⬆	⬆ / ⬆	⬇	32.0	
✓	Audi Q5 Premium Plus	75	\$51,570	⬇	⬆	Std. ⬆	83	24	6.8	130	52.5	⬆	⬆	⬆	⬆ / ⬆	⬇	27.0	
✓	Infiniti QX50 Essential	75	\$51,380	⬇	⬇	Std. ⬆	77	22	7.2	129	55.5	⬇	⬇	⬆	⬆ / ⬆	⬇	30.5	
✓	Mercedes-Benz GLC300	72	\$50,280	⬇	⬇	Std. ⬆	79	22	6.8	132	50.0	⬆	⬆	⬆	⬆ / ⬆	⬇	28.0	
✓	Volvo XC60 T5 Momentum	71	\$50,040	⬇	⬇	Std. ⬆	79	23	8.0	124	52.0	⬆	⬇	⬆	⬆ / ⬆	⬇	34.0	
	Lincoln Corsair Reserve (2.0T)	67	\$49,920	⬇	⬆	Std. ⬆	82	23	7.2	128	54.5	⬆	⬆	⬆	⬆ / ⬆	⬇	27.5	
	Acura RDX Tech	61	\$43,995	⬇	⬇	Std. ⬆	82	22	7.0	127	52.0	⬆	⬇	⬆	⬆ / ⬆	⬇	33.0	
MIDSIZE SUVs (2-ROW)																		
✓	Subaru Outback Limited XT	87	\$39,572	⬆	⬆	Std. ⬆	91	24	7.1	132	54.0	⬆	⬆	⬆	⬆ / ⬆	⬆	37.0	
✓	Ford Edge SEL (2.0T)	79	\$42,610	⬇	⬇	Std. ⬆	84	22	7.7	129	52.0	⬆	⬆	⬆	⬆ / ⬆	⬆	39.0	
✓	Hyundai Santa Fe Limited (2.0T)	78	\$37,200	⬇	⬆	Std. ⬆	80	21	8.7	136	52.0	⬆	⬇	⬆	⬆ / ⬆	⬆	35.5	
✓	Nissan Murano SL	75	\$42,065	⬆	⬇	Std. ⬆	77	21	7.7	131	50.5	⬇	⬆	⬆	⬆ / ⬆	⬆	33.5	
	Chevrolet Blazer Leather (V6)	68	\$43,290	⬇	⬆	Opt.	83	19	6.4	130	54.5	⬆	⬆	⬆	⬆ / ⬆	⬆	34.5	
	Honda Passport EX-L	59	\$39,937	⬇	⬆	Std. ⬆	79	21	6.4	135	53.5	⬇	⬇	⬆	⬆ / ⬆	⬆	39.0	
LUXURY COMPACT CARS																		
✓	Genesis G70 Elite (2.0T, AWD)	82	\$43,115	⬆	⬆	Std. ⬆	74	23	7.8	137	56.5	⬆	⬆	⬆	⬆ / ⬇	⬆	2+0	
	Acura TLX SH-AWD	72	\$42,345	⬇	⬇	Std. ⬆	76	25	6.5	129	55.0	⬆	⬆	⬆	⬆ / ⬇	⬇	2+2	
	Mercedes-Benz CLA250 4MATIC	57	\$44,390	⬇	⬇	Std. ⬆	65	27	6.6	131	56.0	⬆	⬇	⬆	⬆ / ⬇	⬇	2+2	
	Mercedes-Benz A220 4MATIC	56	\$43,385	⬇	⬇	Std. ⬆	64	27	7.3	130	53.0	⬆	⬇	⬆	⬆ / ⬇	⬇	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, automatic emergency braking, pedestrian detection, and blind spot warning. NA means no such

safety system is offered; Opt. means it's available but not as standard equipment. We also rate models from ⬆ to ⬆ based on how many advanced safety features come standard. We

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

A

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Funny Valentines

These ads may be best for half-hearted romantics

Cat Got Your Tongue?

This is a dessert only a feline could love.
Submitted by Glen Cohen, Syosset, NY



Just Spell My Name Right

Love is blind ... and also bad at spelling, apparently.
Submitted by Dennis Hart, via email



Lasting Love

For husbands who want their spouses to live as long as possible.
Submitted by David Rittenberry, Prescott Valley, AZ

Say It, Don't Spray It

We think a simple Valentine's Day card wipes the floor with this gift idea.
Submitted by Sara Abe, Silver Creek, WA



SHARE

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

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RECALLS 32A
AUTOS 32D

CANADA EXTRA

CANADIAN INFORMATION IN 4-PAGE INSERT

How to Use the Canada Extra Section

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

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

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

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

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

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

CR Best Buy

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

Recommended

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



RECALLS



HYUNDAI
ELANTRA TOURING

2009-2012 HYUNDAI ELANTRA TOURING

On certain cars, there may be a problem in the airbag control unit that can cause airbags to deploy when the vehicle is stopped or moving at slow speeds without a crash.

Affected: 35,309 vehicles.

What to do: Hyundai will notify owners by mail and instruct them to take their car to a dealer to update the software for the airbag control unit.



RECALLS *Continued*

2014-2019 RAM 1500

On certain trucks equipped with a 3.0-L EcoDiesel engine, the exhaust gas recirculation (EGR) cooler could crack internally and leak. This could create the risk of an engine fire.

Affected: 50,259 vehicles.

What to do: FCA Canada will notify owners by mail. The corrective actions for this recall are under development.

2014-2020 CHEVROLET AND GMC MODELS

On certain vehicles, there may be an error in the electronic-brake control module software, which causes the brakes to apply and the vehicle to pull to one side.

Note: This recall affects only vehicles equipped with four-wheel drive, a 5.3-L engine, and a 3.08 ratio rear axle. The problem can occur only when the vehicle is in four-wheel drive or automatic mode, and traveling at a speed between 66 and 97 km/h (41 and 60 mph). A wheel-speed sensor failure will cause the electronic stability control (ESC) and antilock braking system (ABS) warning lights to turn on, and a "Service StabiliTrak" message to display.

Affected: 37,378 2014-2018 Chevrolet Silverado and 2015-2020 Suburban and Tahoe, and 2014-2018 GMC Sierra and 2015-2020 Yukon vehicles.

What to do: General Motors will notify owners by mail and instruct them to take their vehicle to a dealer to update



CHEVROLET
SILVERADO

the electronic-brake control module software. General Motors advises that using two-wheel-drive mode can eliminate the risk until the recall repair is completed.

2015-2017 FORD TRANSIT

On certain vehicles, the flexible coupling between the transmission and driveshaft may crack over time and cause a loss of power to the wheels and/or unintended vehicle movement. Owners may notice vibrations and noise from under the vehicle.

Note: Cutaway chassis models with a 156- or 178-inch wheelbase are not involved in this recall.

Affected: 22,960 vehicles.

What to do: Ford will notify vehicle owners by mail. A final repair is being developed. In the interim, the driveshaft flexible coupling must be replaced every 64,000 km until the final repair is available. If the vehicle has less than 64,000 km, there is no action needed at this time. If the vehicle has 64,000 km or more, Ford will instruct owners to take their vehicle to a dealer to replace the driveshaft flexible coupling.

2015-2018 SUBARU FORESTER

On certain vehicles, the passenger occupant detection system (ODS) may malfunction and cause the airbag system to turn off the passenger-front airbag.

Affected: 35,806 vehicles.

What to do: The company will notify owners by mail and instruct them to take their vehicle to a dealer to inspect the ODS sensor mat harness. It will be replaced, if necessary.

2017-2018 SUBARU MODELS

On certain vehicles, the positive crankcase ventilation (PCV) valve could fail. If owners continue to operate the vehicle after this happens, pieces of the PCV valve may enter the engine and cause an engine failure.

Affected: 23,255 2017-2018 Impreza and 2018 Crosstrek vehicles.

What to do: Subaru will notify owners by mail and instruct them to take their vehicle to a dealer to replace the PCV valve. Additionally, the replaced PCV valve will

be inspected. If the valve is found to have separated, the separator cover and oil pan will be removed. If the separated parts are not located, the engine short block assembly will be replaced.

2017-2019 SUBARU MODELS

On certain vehicles, the engine control unit (ECU) may have been programmed incorrectly. As a result, the internal temperature of the ignition coils may increase and cause a short circuit and a blown fuse. This may result in a sudden loss of engine power with an inability to restart.

Affected: 52,707 2017-2019 Impreza and 2018-2019 Crosstrek vehicles.

What to do: Subaru will notify owners by mail and instruct them to take their vehicle to a dealer to reprogram the ECU and inspect the ignition coils. If ignition coil damage is found, the ignition coil will be replaced. On vehicles with ignition coil damage, if a certain trouble code (DTC) is stored, the front exhaust pipe will also be replaced.

2018-2020 AUDI MODELS

On certain vehicles, the cover trim for the rear wheel arches may become loose and detach while driving.

Affected: 30,567 2018-2019 SQ5 and 2018-2020 Q5 vehicles.

What to do: The company will notify owners by mail and instruct them to

take their vehicle to a dealer to replace the four clips that secure the forward part of the rear wheel-arch trims.

2018-2020 BMW MODELS

On certain vehicles, the rearview camera does not return to the default settings when it turns on. This could make the rearview image difficult to see. Canadian regulations require that the rearview display returns to the default view each time the camera is turned on.

Affected: 14,323 2018-2020 5 Series, 6 Series, and X3; 2019-2020 3 Series, 7 Series, 8 Series, X4, X5, X7, and Z4; and 2020 X6 vehicles.

What to do: The company will notify owners by mail and instruct them to take their vehicle to a dealer to

update the software for the rearview camera. Drivers are recommended not to adjust the display brightness at or near the lowest setting, and the contrast at or near the highest setting, until this recall is completed.

2019 DODGE GRAND CARAVAN

On certain vehicles, the striker for the seat latches on the second- and third-row seats may not be properly welded. As a result, the seat or seat belt may not properly restrain passengers in a crash if the seat is unlatched.

Affected: 6,000 vehicles.

What to do: The company will notify owners by mail and instruct them to take their vehicle to a dealer to add a striker reinforcement bracket for the second- and third-row outboard seats.

2019 FORD MODELS

On certain Super Duty trucks equipped with an electronic locking rear differential, the passenger-side rear axle shaft could break, resulting in a loss of power to the rear wheels. If the parking brake is not applied, the truck could roll away when parked.

Affected: 4,316 F-250 Super Duty and F-350 Super Duty vehicles.

What to do: Ford will notify owners by mail and instruct them to take their vehicle to a Ford or Lincoln dealer to inspect the passenger-side rear axle shaft. It will be replaced as necessary.



SUBARU
CROSSTREK

Autos

All of the tested vehicles are available in Canada. **Report and ratings, pages 59-61**

		Acceleration (sec.)				Fuel Economy (liters per 100 km)		
Make + Model	Price Range	0-50 km/h	0-100 km/h	80-100 km/h	500 meters	City Driving	Highway Driving	Overall
COMPACT SUV								
Ford Escape	\$28,549–\$40,049	3.5	9.5	3.8	19.4	13.6	6.4	9.1
LUXURY COMPACT SUV								
Lincoln Corsair	\$44,700–\$50,500	3.0	7.6	3.5	18.1	15.8	7.2	10.4
MIDSIZE SUV								
Subaru Outback	\$30,695–\$43,795	3.1	7.5	3.3	17.7	14.3	7.2	9.9
LUXURY COMPACT CAR								
Mercedes-Benz CLA	\$43,000–\$51,400	2.8	7.0	3.2	17.3	13.7	5.6	8.7

FORD ESCAPE
PRICE AS TESTED
\$32,600 (U.S.)

62

OVERALL
SCORE

LINCOLN CORSAIR
PRICE AS TESTED
\$50,870 (U.S.)

67

OVERALL
SCORE

✓ **SUBARU OUTBACK**
PRICE AS TESTED
\$39,572 (U.S.)

87

OVERALL
SCORE

MERCEDES-BENZ CLA
PRICE AS TESTED
\$44,390 (U.S.)

57

OVERALL
SCORE