

TAKE CHARGE OF YOUR **HEART HEALTH**

- Diet and exercise changes that make a difference
- Ratings of the nation's top heart hospitals
- Screening tests you need—and don't



NEW, TASTY
& HEALTHY
**ALTERNATIVE
PASTAS**

SOLVING FAMILY MONEY FIGHTS

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10 Miles Away

Best deal

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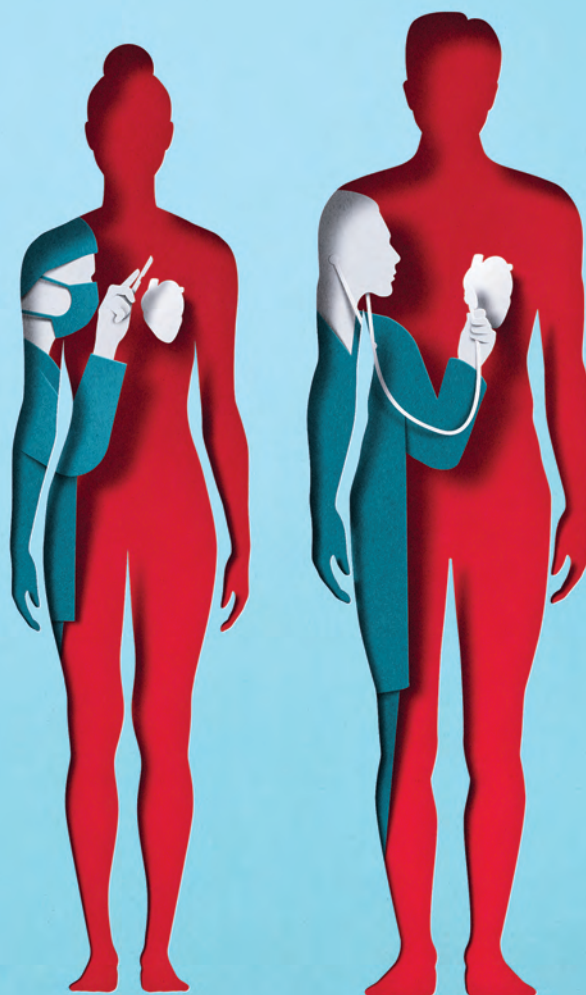
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Take Charge of Your Heart Health

Keep your heart strong with diet changes, smart choices about drugs and screening tests, and knowing which are the top heart hospitals in the country.

RATINGS



P. **24**



38 **Pretty in Paint**

We help you spend your paint dollar where it counts. Plus, how to prep, when to prime (or not), what whites are right, and our top picks of the most durable choices across brands.

RATINGS



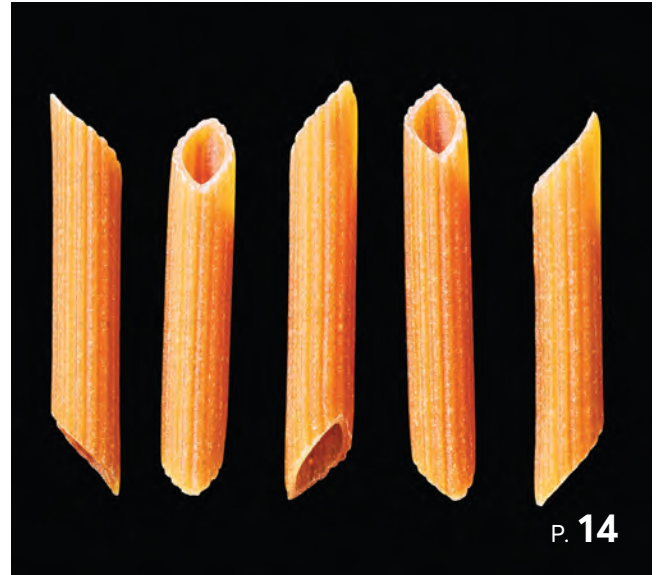
44 **Solving Family Money Fights**

Things can quickly turn tense when talking money with family and others you love. Experts weigh in on how to avoid feuds and flare-ups, and still get on sound financial footing.



52 **Taking Patients for a Ride**

For-profit air-ambulance transports are on the rise, and too often not fully covered by insurance, leaving consumers with huge bills they didn't see coming. We tell you how to protect yourself.



IN EVERY ISSUE

**5 From the President:
The Heart of the Matter**

How we're empowering you to take control of your health, regardless of your age or medical history.

6 Your Feedback

Readers' comments about our recent content.

**8 Building a Better
World, Together**

Reducing hospital-acquired infections, promoting electric cars, and fighting mergers that hurt consumers.

22 Recalls

62 Index

A year's worth of products.

63 Selling It

Goofs and gaffes.

PRODUCT UPDATES

**9 Mowers That
Make the Cut**

Battery-powered push mowers now rival gas-powered models for the first time. We survey the mower landscape so that you can make top choices when you trim.

RATINGS

14 A New Twist on Pasta

Pastas made of plant protein have health advantages—but do they taste as good as the traditional stuff? We fork over the answer—along with some recipes.

RATINGS

INSIGHTS

**18 How to Shoot
Great Video**

The camcorder is kaput, thanks to the video power of today's smartphones, action cams, and digital cameras. We give you top picks for quality, plus tips on the best editing programs and how to take the shake out of your shots.

RATINGS

23 Ask Our Experts

How owners of Android phones and iPhones can video chat with each other, avoiding liability claims at your yard sale, and veggies that lower cancer risk.

ROAD REPORT

58 Road Tests

Looking for luxury? We test-drive the Genesis G90, Lincoln Continental, Buick LaCrosse, and Nissan Armada SUV to see whether they deliver on creature comforts, agility, and fuel economy.

RATINGS



GENESIS G90

81
OVERALL
SCORE

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RATINGS Overall scores are based on a scale of 0 to 100. We rate products using these symbols:

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VERY GOOD EXCELLENT

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From the President

The Heart of the Matter

WITH HEART DISEASE responsible for about one in seven deaths—and with almost 800,000 Americans suffering a heart attack each year—chances are you or someone you love has been touched by heart disease. When it comes to heart health, it's easy to feel powerless: Symptoms can be hard to spot, risk levels can be difficult to gauge, and the advice you get can be confusing. And though it's true that there are elements of heart health that are outside of our control, many of us don't appreciate just how much can be done to improve our own well-being.

As debates over the future of health coverage heat up, our Consumer Voices Survey revealed that most Americans are deeply concerned about their ability to receive the care they need. That's why CR is working tirelessly in Washington to make our health insurance system reflect your needs around cost, quality, and access to care.

It's also why we're offering insight on how to seize control of your health in our article "Take Charge of Your Heart Health," on page 24. We're sharing our latest work to bring greater transparency to hospital performance. We're offering



guidance on simple lifestyle changes that can reduce your chances of a cardiac event. We'll equip you to know when drugs are necessary and when the side effects create more problems than they solve. On everything from heart-healthy diets to choosing the most appropriate screening tests, we do the homework for you.

CR is committed to empowering you when it comes to the issues that matter most—and that starts with having the trusted knowledge you need to ensure your good health and the health of your family.

Marta Tellado

Marta L. Tellado,
President and CEO
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JOIN US IN SHAPING CR'S FUTURE!

YOU, THE CONSUMER, are at the heart of everything we do. That's why we'd love for you to take part in our new Consumer Reports Insights Panel. Members will get to:

- Be "in the know" about innovations we're working on.
- Provide input on topics that matter most to you.

- Share your perspective via surveys, chats, and more.
- Connect with CR staff who share your passions.

This is a six- to 12-month commitment; you can participate in as many or as few activities as you like. To join the panel, please complete the short survey at [CR.org/panel](https://www.consumerreports.org/panel).



Exposing Unfair Pricing in Auto Insurance Rates

We analyzed data from billions of annual premiums to discover the major life events and other factors that drive auto insurance premiums up and down in “How to Save on Car Insurance” (March 2017). Our inbox was loaded up with mail from readers who shared insights of their own. Go to CR.org/save0517 to join the conversation.

YOUR MARCH ARTICLE and my auto insurance bill arrived the same week. I normally see an increase and pay, but this time it was 17.6 percent! My agent contacted the insurance company and found out the increase was due to the fact that I am 75. I have had no claims, have a good driving record and excellent credit, and had been with the same insurance company for over 40 years. It did not matter. Age was the factor. While my agent was “shopping me” to other insurance companies, I decided to try USAA. Wow, they saved

me over \$300 a year over what my former insurer was going to charge me. I now see why you suggest shopping around.
—R. Root, Miamisburg, OH

AS A DRIVER in New York state I save 7.5 percent on my premium by taking a defensive driving course every three years. Being accident-free saves me 15 percent, a benefit for staying with one company for a while.
—Robert Fischer, Yorktown Heights, NY

EDITOR'S NOTE Not all states offer insurance discounts to those who take a defensive driving course; for those that do, the amount of the discount varies. Check with your insurance company to find out the rules in your state.

WHILE RATING COMPANIES and prices is great, you are omitting the one factor that is

most important: the insurance agent. I've been with the same independent agent for over 15 years. He is constantly checking for better rates. Having the same person to call for 15 years who will answer every question and knows you personally is invaluable. I may be paying a bit more (I am insured by one of your highly rated companies), but knowing my agent will get back to me ASAP is priceless. Don't leave out the human factor.
—Mark Gluckman, Phoenix

YOUR MARCH ARTICLE regarding car insurance rates shows that having a poor credit rating has a tremendous effect on rates. Since all car insurance is paid in advance for any coverage you receive, why is this a factor? The introduction of credit ratings sounds more like a scam to extort more

money from the customers with no additional benefit or coverage of any kind.
—Kenneth Lykins, Sadieville, KY

EDITOR'S NOTE Except for three states where the practice is outlawed (Hawaii, Massachusetts, and California), insurers can and do use information about their customers' credit history to set premium prices, a practice that we agree is unfair. People with poor credit scores but clean driving records often pay a lot more than those with excellent scores—even if they have a drunken driving conviction. Insurers say credit scores predict claims losses. But Consumer Reports believes drivers should be judged, and priced, on how well they drive—not on socioeconomic factors such as credit history.

YOUR ARTICLE WAS very helpful. One thing missing is the policy of some insurance companies to charge widows more. A study by the Consumer Federation of America found that four of six major insurers (Geico, Farmers, Progressive, and Liberty) in 10 cities increased rates on state-mandated liability coverage for widows by an average of 20 percent. I find the widow penalty just another blow to women at a traumatic time in their lives.
—Connie Ricci, Bradenton, FL

EDITOR'S NOTE Consumers Union, the advocacy arm of Consumer Reports, maintains that auto insurance should be priced based primarily on driving factors—not on economic or other factors such as marital status. In California, CU was instrumental in the passage of Proposition 103, which requires car insurance pricing to be based primarily on years of driving experience, miles driven annually, and driving record. A 2013 Consumer Federation of America study shows that Prop 103 has saved Californians billions of dollars since it was adopted.



WRITE

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

Caught on Tape

“COMING TO A DASHBOARD Near You” (March 2017) is a very informative article. If someone is in a crash, what would be their legal responsibility related to dash-cam video? Is there a legal requirement to hand over the video evidence if requested by law enforcement? Even if it's legal to refuse, will that imply that the dash-cam owner was at fault?

—Mark Lipsy, Caldwell, NJ

EDITOR'S NOTE A dash cam can be seized as part of a criminal or police investigation, but the material recorded on it cannot be viewed without the owner's written consent or a search warrant. Additionally, anyone bringing a civil suit would have a right to request the dash-cam footage. In either scenario, intentionally lying about, tampering with, or destroying the footage could lead to further charges and/or legal complications.

Taxing Situation

I HAVE BEEN a loyal subscriber for decades and routinely follow recommendations published in your magazine with good results. However, I seriously question the advice

offered in “Host a Smart Yard Sale,” in your March 2017 issue. “Clear out old stuff and make some quick, tax-free cash while you're at it”? I have been led to believe by tax experts that net yard-sale revenue is taxable as “other income.”

—Frank Peters, Lexington, KY

EDITOR'S NOTE Unless you sell something for a higher price than you paid for it, the sale is not taxable. If you make money, you owe taxes. Yard sales may bring in cash, but most people are selling personal items for less than they originally paid, so there's no profit to report and no taxes are owed.

YOUR EXPERT RECOMMENDS holding a yard sale to make tax-free cash. I recommend a less strenuous and equally remunerative alternative for people who itemize deductions: Give your stuff to charity and use ItsDeductible.com from TurboTax (free, but registration is required) to get an IRS-acceptable valuation and record of donations. It's work, but less by far than a yard sale, and in my opinion, I get a fair value for my “stuff.”

—Peter Smith, Watertown, MA

EDITOR'S NOTE Donating to charity is indeed less strenuous, but for the 70 percent of people who do not itemize their deductions and therefore can't deduct a charitable contribution, a yard sale is a good way to go.

Starved for Carbs

I ALWAYS FIND your reports on foods and nutrition particularly valuable. Your March 2017 article on mall food choices (“Step Away From the Sticky Bun!”), was very informative but did not include total carbohydrate content in the nutrition values. For many people with diabetes, particularly type 2, that total count is more important than the sugar content. Could you please include the total carbohydrate content?

—Peter Demyan, Sparks, NV

EDITOR'S NOTE Yes, and good news! We've had many requests from readers to include carbohydrate content in our food articles. You'll find that information in this month's “A New Twist on Pasta,” on page 14, and in all our future food reports.

Hearing Solutions

THANKS FOR THE excellent article “No More Suffering in Silence?” (March 2017). You mentioned that a great many people with hearing loss have never had a hearing test. This problem has been addressed in most European countries and Australia by making a free telephone-administered screening test available. A similar test was also developed in the U.S. with the support of grants from the National Institutes of Health. It is currently being offered as a benefit of membership by AARP (nationalhearingtest.org).

—Charles S. Watson, president, Communication Disorders Technology, Bloomington, IN

I AM SURPRISED that your article did not emphasize prevention. While age-related loss is common, acquired losses come from many sources. Music concerts are amplified, leaf blowers and other landscaping and snow-removal tools blast fiercely, and jackhammers pound the streets. Please remind your readers to protect their ears.

—Daniel Dedrick, M.D., Wilmington, NC

EDITOR'S NOTE Consumer Reports regularly warns of the dangers of prolonged exposure to loud noise and recommends the use of hearing protection when operating any outdoor power equipment that generates more than 85 decibels at the ear, which includes almost all tools with a gasoline engine. In fact, on page 9 of this issue, a photo for “Mowers That Make the Cut” shows a woman wearing hearing and eye protection as she mows.

Prudent Printing

CONCERNING THE ARTICLE about printers (“You Can Find Just Your Type!” March 2017): You are correct that the cost of ink cartridges is consumers' biggest pet peeve. Printers have gotten cheaper because manufacturers make their money on the extortionist price of their cartridges. I'm surprised you don't mention refillable cartridges. When I bought my last printer I also bought refillable cartridges and never bought cartridges again for the seven years I owned the printer. They were easy and cheap to refill from bottled ink.

—Ruiz Mango, Phenix, VA

EDITOR'S NOTE Refillable cartridges are money savers, but we don't test them because we think they're impractical for many users. They can be very messy and clog the print heads if you're not careful.

IN THE MARCH article on printers you say that “leaving your printer on may reduce ink-guzzling maintenance cycles,” but in “Boost Your Health & Happiness at Home,” in the same issue, you say to unplug printers to reduce energy consumption. So which is it? Leave it on (which “may” reduce ink use)? Or unplug it (to avoid wasting electricity)?

—Brian Jennings, Centralia, MO

EDITOR'S NOTE Good catch! When advising readers to unplug printers to reduce energy consumption, we were referring to older models—8 to 10 years or older. We should have made that clear. Newer, Energy Star certified models consume very little power when left on and not in use, so we recommend leaving them on to reduce the amount of ink consumed in maintenance cycles.

CLARIFICATION: In “How to Save on Car Insurance” (March 2017) a chart on page 46 showed State Farm as an insurer for Massachusetts and Rhode Island residents. State Farm sells new auto insurance policies only to existing State Farm customers in those states.

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Keeping Patients Safer

ABOUT 650,000 PATIENTS acquire an infection while in a hospital each year and 75,000 of them die, according to the Centers for Disease Control and Prevention. The vast majority of these infections are preventable, yet many hospitals continue to report high infection rates.

Consumer Reports' Safe Patient Project has worked for more than a decade to push hospitals to improve and standardize infection-control efforts. In January we filed a petition in California that called for the state to do more to hold hospitals accountable.

Why California? CR found that its Department of Public Health (CDPH) withheld from inspectors infection data it collected until long after that data was reported, preventing inspectors from taking timely action to protect patients.

To make matters worse, many California hospitals with some of the worst infection rates haven't been inspected by the state in the past five years.

In response to our petition, the CDPH announced that it is now sharing infection data

with state inspectors so that they can use the information to prioritize those hospitals with the worst rates.

"Now California needs to use its enforcement authority to require poor-performing hospitals to take action," says Lisa McGiffert, director of the Safe Patient Project. "For too long, the state has relied on voluntary efforts by hospitals to lower infection rates, and that clearly hasn't been working."

Go to SafePatientProject.org for steps you can take to protect yourself and your loved ones when in a hospital. And read our article "Take Charge of Your Heart Health," starting on page 24, to learn about the top hospitals for heart surgery.

Driving Up Electric Car Sales

ONCE A TECHNOLOGICAL novelty, electric vehicles—or EVs—hit a new sales record in 2016, up 37 percent from 2015. Despite low gas prices, shoppers purchased 70 percent more EVs during January 2017 compared with the previous January.

The increase is impressive,

but EVs still account for only 1 percent of the auto market. That's why CR continues to advocate for programs that encourage EV ownership and the lower operating costs and emissions associated with them.

There's fuel for further growth: A survey by CR and the Union of Concerned Scientists conducted in California and several Northeastern states recently found growing demand for EVs. More than half of the California residents said they would consider an EV for their next vehicle purchase, and more than one-third of the Northeastern residents agreed.

Fuel-economy standards and zero-emission vehicle targets in California and other states have helped put automakers on track to produce more electric cars by the end of the decade.

But for EVs to become mainstream, automakers must increase the driving range.

Chevrolet's new Bolt is a step in the right direction, with an estimated range of 238 miles. Ranges typically vary from about 60 to 100 miles per charge, and the public charging infrastructure remains in its infancy.

Some of the nation's largest

utility companies have made a commitment to help facilitate the deployment of new public charging stations so that more drivers have access at home and on the go.

We'll keep pushing to maintain government and industry support. If you're thinking about making the switch to battery power, go to CR.org/evs0517 for answers to all of your questions about electric vehicles. Then head over to CR.org/cars, where you'll find our latest ratings and first impressions on the newest plug-in rides.

Many of the current crop of EVs carry hefty prices, but remember that federal and state incentives could take as much as \$10,000 off the cost of a new one.

Defeating Bad Mergers

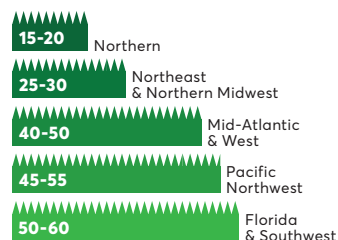
IN OUR NOVEMBER 2016 issue, we told you about proposed mergers involving four of the nation's five largest health insurers. Consumer Reports opposed Anthem's \$54 billion bid to buy Cigna and Aetna's \$37 billion attempt to take over Humana. We were concerned that the corporate marriages would leave consumers with fewer policy options, higher premiums, and less access to quality healthcare. Experience has shown that similar mergers haven't worked out well for consumers.

Our advocates offered forceful testimony against these deals before both Congress and California regulators. We also took our concerns to the Department of Justice. The agency shared our views and sued to block the mergers, arguing that they would seriously harm consumers across the country. The courts ultimately agreed—which was a big win for consumers in a very unsteady insurance market.

Product Updates

The latest ratings from our labs

NUMBER OF TIMES YOU CUT YOUR LAWN EACH YEAR, BY U.S. REGION*



*At sea level, watering as necessary to sustain growth.

Mowers That Make the Cut

Battery-powered push models finally have the muscle to take top scores in our tests, rivaling gas for the first time. Now you have a real choice in how to trim your lawn.

by Paul Hope

Clockwise from top left:

Electric Push Mower

ECHO
CLM-58V4AH
\$400

61

OVERALL
SCORE

Gas Self-Propelled

TORO
RECYCLER
SMARTSTOW
20340
\$400

73

OVERALL
SCORE

Electric Self-Propelled

EGO
LM2102SP
\$600

68

OVERALL
SCORE

Product Updates

AHH, SPRING! The aroma of freshly mown grass. And gasoline. And engine oil.

There's a cleaner way to keep your lawn looking good this year. Electric mowers, which are powered by lithium-ion batteries, are now challenging gas mowers with a simple appeal: They start instantly, run quietly, spew no exhaust fumes, and require no regular engine maintenance.

After years of testing electric mowers—with mostly disappointing results due to limited battery life—Consumer Reports now recommends four models. And for the first time, our top-rated electric push mower, the Ego LM2101, is in the same class as its gas counterpart, the Cub Cadet SC100.

Batteries for outdoor power equipment improve every year, which for mowers means longer run times and a better-quality cut. That's not to say electric mowers are best for everybody or every lawn. For one thing, they cost more than comparable gas mowers. But you can recoup that up-front cost over time by not having to pay for gas, oil, or engine maintenance (see the chart below).

At some point, though, you'll probably have to replace an electric mower's battery, and today's batteries aren't cheap—they cost about \$150 each. That's especially important to know if you have a bigger yard, because you may want to buy a second battery just to make sure you have enough power to get the job done in one shot.

"In our tests, we get anywhere from 30 to 60 minutes of run time on a charge," says Frank Spinelli, CR's lawn mower test engineer. That's enough to mow 12,000 to 15,000 square feet, or about a quarter to a third of an acre, which covers most yards. Houses have been getting bigger over the past 40 years, but lot sizes are roughly the same. So with less lawn to mow, the question becomes: Why *wouldn't* you go electric?

Aside from performance and usability, there are the obvious environmental advantages. "Electric mowers produce no emissions at the point of use, compared with gas-powered mowers, which generate carbon monoxide and unburned hydrocarbons," says Simon Mui, senior scientist and lithium-ion battery expert at the Natural Resources Defense Council.

Mui acknowledges that because batteries have to be recharged, they are responsible for some power-plant emissions. Still, he says, "the level of pollutants generated pales compared to gas mowers, which lack the exhaust control systems found on cars."

To help decide which mower is right for you, we've put together three typical lawn profiles. Find the yard closest to yours and you'll be able to see when an electric mower makes sense, when it doesn't, and when you'll have to weigh the convenience of an electric against the added cost of multiple batteries to get your yard mowed.

Mower Matchmaking:

Is a battery-run mower right for you?

YOUR YARD
Up to
¼ Acre

BEST CHOICE
Electric Push
Mower

EGO LM2101
\$500

67
OVERALL
SCORE



YOUR YARD
¼ Acre to
½ Acre

BEST CHOICE
Gas
Self-Propelled
Mower

HONDA
HRX2175VYA
\$700

86
OVERALL
SCORE



YOUR YARD
½ Acre

BEST CHOICE
Gas Riding
Mower

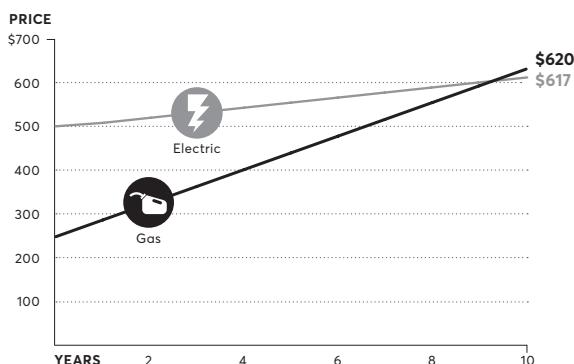
JOHN DEERE
X350-42
\$3,200

78
OVERALL
SCORE



Cost of Ownership: Gas vs. Electric

The best electric push mower costs about \$250 more than the best gas model. It also saves you about \$20 per year on fuel and maintenance, so the total cost evens out after about 10 years.



OUR METHODOLOGY: Yearly expenses are based on mowing a 15,000-square-foot yard, or about ¼ acre, 30 times per year. We used the national average price of \$2.31 per gallon for gasoline and the national average for electricity. For gas models, we added the annual cost of replacing oil, spark plugs, and air filters.

How Lawn Size and Slope Should Steer Your Decision

When is a riding mower justified? We break it down for you.

➤ Smaller yards are the best candidates for electric push mowers, because you can easily cover the area on a single battery charge. This size lawn is typical of newly built homes, tightly knit suburbs, and urban row houses.

Assuming your neighbors are close by, they'll appreciate how quiet your electric mower is. In our tests, electric mowers produced an average 67 decibels at 25 feet, about the same level as a car going

by at 65 mph at that same distance. That's a little less than half the loudness of gas models, which averaged 75 decibels—the same level as busy traffic. That means you can get out there first thing on Saturday morning without worrying about waking the neighborhood.

For yards that are relatively flat, your best bet is the **Ego LM2101** electric push mower, which tops our ratings for electrics.

Ego also makes a number of other yard tools that CR recommends, all of which can use the same battery. So if you had your eye on, say, Ego's top-scoring string trimmer and leaf blower, you could save money by buying them as bare tools—meaning without a battery—and powering them with your mower's battery.

If your yard is hilly, however, you might want to consider a self-propelled electric mower, which means that the motor

powers the wheels to make pushing easier. Because that consumes up to 20 percent of a single battery charge, most come with a larger battery or a second one, which adds to the cost. Self-propelled electrics usually cost at least \$100 more than comparable electric push models.

There are plenty of very good self-propelled gas mowers, of course, and any of them could handle a small hilly yard. The choice is up to you.

➤ Yards this size, which are typical of upscale subdivisions and older suburbs, are too big for either a gas or electric push mower but not quite large enough to justify owning a riding tractor.

So your best bet is a self-propelled gas mower, which cuts grass faster and takes some of the chore out of doing your lawn.

This type of walk-behind mower has powered wheels, which make the task of pushing

it around the yard easier.

If you have a sloped yard, our experts advise choosing a mower with rear- or all-wheel drive, because they tend to have the easiest time on inclines.

Among gas models, the top-scoring **Honda HRX2175VYA** wins out in performance with top scores in each of the three cutting modes: mulching, bagging, and side discharging.

There's also the option of electric self-propelled mowers,

as mentioned, but here you'll start to see the limitations of a battery-powered machine, because you'd need a second battery to cut the entire yard without stopping to recharge. We haven't seen many self-propelled electric models—there are only three in our ratings—and with this year's batch we recommend only the **Ego LM2102SP**. It cuts as well as many of the gas self-propelled models that we

tested, except for some models from Honda and Toro.

Both the Ego and the top Honda have multiple drive speeds, rear-wheel drive, and 21-inch cutting decks.

If you're willing to give up some cutting performance for a better-handling and quieter mower—and don't mind buying a second battery—the electric self-propelled Ego could be worth considering. Otherwise, we would steer you toward the gas-powered Honda.

➤ If you have more than a half-acre of turf, you'll need to trade up to something with a seat, and that means you're probably looking at a model with a gas-powered engine. There are two types of gas models: a riding tractor and a zero-turn-radius mower. Both are equally well-suited for cutting large yards, because they're designed to run for hours. The distinctions come down to cost, cut quality, and speed.

Lawn tractors feature front-mounted engines and a proper steering wheel. They generally provide a more even cut but sacrifice some maneuverability. We recommend the **John Deere X350-42**.

Compare that with zero-turn-radius (ZTR) models. They turn in place around one of the rear wheels when you push one of the two steering levers—as if you were putting on the emergency brake for one wheel. That makes ZTRs

easy to maneuver quickly around flower beds and such. Their engines are mounted in the back, providing a clear view of the shaggy area ahead before you trim it. We recommend the **Troy-Bilt Mustang 42**.

But ZTR mowers are usually more expensive, and they don't steer as well as tractors on sloped terrain. Also, because the rear wheels control the steering, they can dig up your yard if you turn too quickly.

If you're struggling to choose between the two types, consider a test drive. Some stores, including Lowe's, will allow you to rent a mower for the day. (Plan on renting a trailer, too, to get it home.) And if you find that you like the freedom to turn in place but can't get used to the push-lever controls on a ZTR model, Troy-Bilt offers a version of the Mustang, the **Mustang Pivot 46**, that turns in place but uses a steering wheel.



Ratings ➤ **Green Machines** Let your lawn size determine type, then focus in on the factors that matter most.

WALK-BEHIND MOWERS			Brand & Model	Price	Overall Score	Test Results				
	Rec.	Rank				Mulching	Bagging	Side Discharging	Handling	Ease of Use

GAS SELF-PROPELLED MOWERS

These mowers have powered wheels, which are best suited for sloped yards or those larger than ¼ acre. Our tests show that all-wheel drive gives you the best traction for hills. And multispeed mowers, though more expensive than single speed, let you tailor the pace of cutting to your yard. Pricier models also have some nice features, such as electric push-button start.	✓	1	Honda HRX2175VYA	\$700	86	⬆	⬆	⬆	⬆	⬆
	✓	2	Toro Super Recycler 20381	\$520	77	⬆	⬆	⬆	⬆	⬆
	\$	3	Honda HRR216VKA	\$430	77	⬆	⬆	⬆	⬆	⬆
	✓	4	Toro Recycler Smartstow 20340	\$400	73	⬆	⬇	⬆	⬆	⬆
	\$	5	Toro Recycler 20332	\$360	71	⬆	⬆	⬆	⬆	⬇
	✓	6	Ariens Razor 911177	\$460	71	⬆	⬆	⬇	⬇	⬆
	✓	7	Cub Cadet SC 700h	\$550	70	⬆	⬆	⬆	⬆	⬆
		8	Husqvarna LC 221RH	\$380	67	⬆	⬆	⬆	⬆	⬇

GAS PUSH MOWERS

These traditional mowers are generally the least expensive and have relatively few features. Most can mulch or disperse grass clippings through a side-discharge chute or into a bag, but some require you to buy additional attachments to do so.	\$	1	Cub Cadet SC100	\$250	68	⬆	⬇	⬆	⬆	⬇
	✓	2	Ariens Razor 911173	\$340	67	⬆	⬆	⬇	⬆	⬇
	✓	3	Yard Machines 11A-B9A9	\$240	65	⬆	⬇	⬆	⬆	⬇
	✓	4	Troy-Bilt TB130 XP [Item 806387] (Lowe's)	\$250	65	⬆	⬇	⬆	⬆	⬇
		5	Lawn-Boy 17734	\$340	62	⬆	⬇	⬇	⬆	⬇
		6	Craftsman 37237	\$250	61	⬆	⬇	⬆	⬆	⬇

ELECTRIC PUSH MOWERS

The best of these mowers are similar to top gas models, though they're generally more expensive. They perform just as well and are far more quiet. Electrics come with 21-inch-wide cutting decks, though some older models may have only 16-inch decks, which means you'll need to make more passes to cut your lawn.	\$	1	Ego LM2101	\$500	67	⬆	⬇	⬆	⬆	⬆
	✓	2	Echo CLM-58V4AH	\$400	61	⬇	⬇	NA	⬆	⬆
		3	Troy-Bilt TB510	\$500	58	⬇	⬇	⬇	⬆	⬆
		4	GreenWorks MO60L410 [Item 725987] (Lowe's)	\$400	58	⬇	⬇	⬇	⬆	⬆
		5	Worx WG771	\$500	58	⬇	⬇	⬇	⬆	⬆
		6	Black+Decker CM2040	\$350	57	⬇	⬇	⬇	⬆	⬆

ELECTRIC SELF-PROPELLED MOWERS

You won't find many electric self-propelled mowers, and there's a good reason. Battery life is still limited, so most electrics can't cut more than ¼ acre on a single charge. That means buying a second battery. As with gas, electric self-propelled mowers with multiple drive speeds and all-wheel drive are the most versatile and the easiest to use.	\$	1	Ego LM2102SP	\$600	68	⬆	⬇	⬆	⬆	⬆
		2	Troy-Bilt TB610	\$600	58	⬇	⬇	⬇	⬆	⬆
		3	Earthwise 60318	\$320	44	⬇	⬇	⬇	⬆	⬇

RIDING MOWERS			Brand & Model	Price	Overall Score	Deck Size (In.)	Test Results				
	Rec.	Rank					Side Discharging	Mulching	Bagging	Handling	Ease of Use

LAWN TRACTORS

<p>Most tractors come standard with a 42- or 46-inch-wide deck, though some go to 54 inches or wider, and will cut your yard two to three times faster than a walk-behind mower. Our tests find that you'll get the most uniform cut from smaller decks with two blades. Wide-deck models featuring three blades tend to leave ridges of uncut grass behind.</p>		1	John Deere X350-42	\$3,200	78	42					
		2	Craftsman 27042	\$2,200	78	46					
		3	Cub Cadet XT1 LT46	\$1,700	77	42					
		4	Craftsman 27055	\$3,300	77	54					
		5	Cub Cadet XT1 LT42	\$1,500	76	46					
		6	John Deere S240-42	\$2,500	76	42					
		7	John Deere D130-42	\$1,900	76	42					
		8	Troy-Bilt Super Bronco 50 XP	\$1,900	74	50					
		9	John Deere D155-48	\$2,200	74	48					
		10	John Deere D125-42	\$1,800	74	42					
		11	Troy-Bilt LT Fab 46	\$1,900	73	46					

ZERO-TURN-RADIUS RIDING MOWERS

<p>These mowers allow you to turn in place, and they can maneuver quickly around obstacles such as trees and flower beds. Though nimble handling and high top speeds save time getting around your yard, you'll still want to maintain a modest, steady speed for cutting. Zero-turn-radius tractors have a tendency to tear up grass if you pivot too quickly, and they're trickier to turn on steep hills.</p>		1	Troy-Bilt Mustang 42	\$2,300	82	42					
		2	Troy-Bilt Mustang Pivot 46	\$2,900	81	46					
		3	Troy-Bilt Mustang 50	\$2,800	79	50			NA		
		4	Cub Cadet RZT L54 KH	\$3,000	79	54					
		5	Cub Cadet RZT L 46 H	\$3,300	78	46					
		7	John Deere Z335E-42	\$2,500	73	42					
		9	Toro SW4200 74784	\$3,000	72	42					
		10	John Deere Z345R-42	\$2,800	72	42					
		11	Toro TimeCutter SS4235 74721	\$2,300	71	42					

For the complete list of 126 mower ratings, CRO subscribers can go to [CR.org/mowers0517](https://www.cro.org/mowers0517).

HOW WE TEST: For walk-behind mowers, we calculate the overall score by assessing how well each mower works in three different cutting modes. We prioritize mulching, our recommended method, and measure how well mowers can churn grass into clippings that readily recede into the surrounding lawn. For side-discharge cutting, we measure how evenly grass clippings are cut and dispersed through the discharge chute, favoring models that don't leave big clumps of grass behind.

For bagging, we determine how easy it is to attach and remove the bag, then record the weight of a full bag. We measure handling for walk-behind models by pushing, pulling, and making U-turns, as well as noting how easy it is to set speed controls for self-propelled models. Last, we assess how easy walk-behind models are to start, store, and adjust to different cutting heights.

For riding mowers, in addition to cutting tests, we assess riding mowers for the ease of steering and braking, and note stability and turning radius for all but ZTR models, which turn in place. Last, we determine how easy each model is to start and to engage and adjust the cutting deck. For more information, go to [CR.org](https://www.cro.org).

Product Updates



A New Twist on Pasta

Can penne made from chickpeas or fusilli made from lentils taste as good as the traditional stuff—and be healthier? We fork over our findings.

by Rachel Meltzer-Warren

“LIFE IS A COMBINATION of magic and pasta,” said the Italian filmmaker Federico Fellini. And a growing number of us looking to cut back on carbs, avoid gluten, and pump up our plant-protein intake are now turning to a new breed of noodles to perform those nutritional magic tricks.

Traditional pasta is made from semolina, a refined flour derived from durum wheat. But the new pastas are made from grains such as quinoa and legumes such as chickpeas and lentils. So-called alternative pastas—which Whole Foods named one of the top 10 food trends for 2017—are perceived as better for you. “They intersect with virtually every healthy food trend in today’s marketplace,” says Rachel Cheatham, Ph.D., an adjunct assistant professor of nutrition at Tufts University. So we tested

13 alternative pastas to see whether they meet consumer expectations for nutrition and taste.

Noodle Nutrition

Americans trying to eat fewer carbs may be disappointed to discover that the carb counts of these new pastas aren’t always much lower than regular pasta. A 2-ounce serving of traditional pasta—½ cup dry, which cooks up to about 1 cup—has about 43 grams of carbs. The same-size serving of the alternative pastas we looked at had 32 to 46 grams. Nor are there big differences in calorie counts: 2 ounces of dry regular pasta has 210 calories; bean or quinoa noodles have 190 to 210 calories.

But there are other reasons to add alternative pastas to your culinary repertoire. Eating legumes and

whole grains is linked to improved cardiovascular health, a lower risk for type 2 diabetes, and better weight control—benefits that can be attributed in great part to their protein and fiber content.

Like the beans themselves, legume pastas are packed with plant protein. The ones we tested ranged from 11 to 15 grams per 2-ounce serving. “The bean pastas are a good way for people who don’t like beans in their natural state to get the benefits of legumes,” says Amy Keating, R.D., a Consumer Reports dietitian.

Despite quinoa’s reputation for being a protein-rich grain, pastas made with it usually contain a blend of flours, sometimes including wheat. The ones we looked at had just 4 to 8 grams of protein per serving. (Regular pasta averages 7 grams.)

1. Explore Cuisine Organic Red Lentil Penne **2. Ancient Harvest** Supergrain Organic Corn & Quinoa Blend Penne **3. Banza** Penne Made From Chickpeas **4. Pasta Lensi** Red Lentil Fusilli **5. Ancient Harvest** POW Black Bean Elbows **6. Tolerant** Organic Black Bean Penne **7. Hodgson Mill** UltraGrain Penne With Quinoa **8. Ancient Harvest** POW Red Lentil Rotini **9. Explore Cuisine** Organic Chickpea Fusilli **10. Tolerant** Organic Red Lentil Penne **11. Pasta Lensi** Chickpea Casarecce **12. Trader Joe’s** Organic Black Bean Rotini **13. DeBoles** Quinoa Plus Golden Flax Penne.

All of the alternative pastas we tested had enough fiber to be considered a good source of the nutrient (3 or more grams per serving). But some had 8 or more grams. “Getting more fiber has many health benefits,” says Marvin M. Lipman, M.D., Consumer Reports’ chief medical adviser. “But if you aren’t used to consuming large amounts in one sitting, it can cause bloating, cramping, and gas.”

To avoid these issues, he says, increase fiber intake gradually and drink plenty of water.

Pasta made from beans and grains like quinoa often falls squarely in the gluten-free category. That doesn’t make food more nutritious, but if you have a bona fide gluten intolerance, then the rise of alternative pastas may be a boon for you. Look for a logo that says “certified gluten-free,” because not all alternative pastas are made from gluten-free ingredients.

The Truth About the Taste

High-quality traditional pasta will have a firm texture when cooked (al dente, or

“to the tooth”). It should be easy to bite into but have some resistance. As you chew it, the pasta should hold together, not crumble or melt away in your mouth. None of the bean or quinoa pastas met this standard, but the top-rated red-lentil pastas came the closest.

They were also tops in taste. None of the black-bean, chickpea, or quinoa pastas scored higher than Good for texture or taste. But the top-ranked brands in each category are still worth a try; the flavor and texture defects were less noticeable when the pastas were paired with the right toppings. (See “Give Red Sauce a Rest,” at right.)

Alternative pastas are pricier than regular pasta. For packages of 8 to 12 ounces, we paid \$2.50 to \$10 for the bean and quinoa pastas we tested, with our top picks in each category costing \$2.50 to \$5 per box. But because of their protein content, spending more on spaghetti may translate into savings at the supermarket, Cheatham says.



Going With the Whole Grain

Whole-wheat pastas are a healthier choice than regular pasta, and the taste can be surprisingly similar.

➤ If you’re looking for a more nutritious alternative to regular pasta that costs less than the legume and quinoa varieties, try whole-wheat. The package sizes of the products we tested were 12 to 16 ounces and the prices were \$1.50 to \$3 per box. Like white pasta, whole-wheat pasta is made from durum wheat but contains all three parts of the grain—bran, endosperm, and germ. That means it has more nutrients and fiber—about 3 to 4 additional grams per serving—than the regular kind, although its protein and calories are about the

same. (All seven scored Very Good for nutrition.)

Another plus: In terms of flavor and texture, some whole-wheat noodles come close to traditional ones. “Depending on which product you choose, the taste differences may not be all that noticeable, especially with a sauce,” says Ellen Klosz, who led our testing of alternative pastas. “Barilla Whole Grain Penne and Ronzoni Healthy Harvest 100% Whole Grain Penne Rigate, with Very Good taste ratings, stood out from the rest for their nutty whole-grain flavors

and their slightly chewy, springy texture.”

The remaining five brands received Good ratings. In order of quality, they are De Cecco 100% Whole Wheat Penne Rigate, 365 Everyday Value (Whole Foods) Organic Whole Wheat Penne Rigate, Trader Giotto’s (Trader Joe’s) Organic Whole Wheat Penne Rigate, DeLallo Organic 100% Whole Wheat Penne Rigate, and Hodgson Mill Whole Wheat Whole Grain Penne. A flavorful sauce would mask some of the flavor and texture defects.



Give Red Sauce a Rest

The best toppings for bean pastas from CR’s Claudia Gallo, a professional chef.



MEXICAN BLACK BEAN ROTINI

Combine 5½ cups cooked, drained hot pasta with 1 cup frozen corn kernels (defrosted), 1 chopped red pepper, 2 chopped tomatoes, ½ chopped small red onion, and 1 chopped avocado. For the dressing, combine ¼ cup fresh lime juice, ⅓ cup olive oil, ½ teaspoon salt, and ⅛ teaspoon cayenne pepper. Combine with black-bean mixture and top with chopped fresh cilantro. Makes 6 servings.



CHICKPEA FUSILLI FORMAGGIO

Toss 3½ cups cooked, drained hot pasta with ¼ cup olive oil, ¼ cup grated Parmesan cheese, and fresh parsley. Makes 4 servings.



RED, WHITE, AND GREEN ROTINI

Toss 4 cups cauliflower florets and 1 pint grape tomatoes in 3 tablespoons olive oil and ¼ teaspoon each salt and black pepper. Roast on a rimmed sheet pan at 425° F for 25 to 30 minutes. Add two cloves garlic, sliced, during last 5 minutes. Cook an 8-ounce package of red-lentil rotini and then drain, reserving 1 cup of pasta water. Stir in cauliflower mixture, 5 ounces of baby spinach, ½ cup grated Asiago cheese, and enough pasta water to moisten. Makes 4 servings.

Ratings ➤ **Noodles by the Numbers** Calories and carbs are similar to regular pasta, but fiber and protein are usually higher.



Product	Rating		Nutrition Information					Pricing				Ingredients	CR's Take
	Taste	Nutrition	Calories	Fat (g)	Carbs (g)	Fiber (g)	Protein (g)	Package Size (oz.)	Price Per Package (\$)	# Servings Per Package	Cost Per Serving (\$)		
RED LENTIL													
Ancient Harvest POW Red Lentil Rotini	👍	👍	200	1	35	7	14	8	4.50	4	1.13	Red-lentil flour, organic quinoa flour	Chewy, with a clean, complex flavor that tastes of red lentils. A tad crumbly and slightly chalky. Pairs well with red sauce.
Explore Cuisine Organic Red Lentil Penne	👍	👍	190	1	35	3	11	8	5.00	4	1.25	Organic red-lentil flour (73%), organic brown-rice flour	Mild red-lentil flavor; slightly earthy. Texture is soft and slightly chewy, with slight to moderate chalkiness.
Tolerant Organic Red Lentil Penne*	👎	👍	200	1	35	7	14	12	9.00	6	1.50	Non-GMO organic red lentils	Earthy notes and slightly bitter. Slightly crumbly, mushy, and chalky texture. Flavor is better than texture.
Pasta Lensi Red Lentil Fusilli	👎	👍	200	1	34	3	15	10	4.90	5	0.98	Red-lentil flour	Flavor is a bit earthy with a hint of bitterness. Texture gets mushy and chalky as you chew.
CHICKPEA													
Explore Cuisine Organic Chickpea Fusilli	👎	👍	200	2.5	35	5	11	8	5.00	4	1.25	Organic chickpea flour (60%), organic brown-rice flour, organic tapioca starch, organic pea protein	Slightly starchy, beanlike flavor. Has a chewy, slightly rubbery texture, but it's still worth a try. Pairs well with red sauce, which made the flavor defects less noticeable.
Pasta Lensi Chickpea Casarecce	👎	👍	210	3	34	7	12	10	3.50	5	0.70	Chickpea flour	Soft, with a beany flavor and a chalky, mushy texture. Slightly astringent.
Banza Penne Made From Chickpeas	👎	👍	190	3.5	32	8	14	8	3.00	4	0.75	Chickpeas, tapioca pea protein, xanthan gum	Moderately bitter. Mushy and slight chalky texture. Slightly astringent.
BLACK BEAN													
Trader Joe's Organic Black Bean Rotini	👎	👍	200	1.5	35	15	14	12	3.00	6	0.50	Organic black-bean flour	Clean, good black-bean flavor and slight bitterness. Texture is slightly mushy, chalky, and crumbly. Astringent.
Tolerant Organic Black Bean Penne*	👎	👍	210	1	36	10	14	12	10.00	6	1.67	Non-GMO organic black beans	Black-bean flavor with a slight to moderate bitterness. Chalky, slightly crumbly, and rather gritty. Astringent.
Ancient Harvest POW Black Bean Elbows	👎	👍	190	1	35	7	12	8	4.50	4	1.13	Black-bean flour, brown-rice flour, organic quinoa flour	Notable lingering bitterness overpowers mild black-bean flavor. Chalky and very soft, mushy, and sticky. Astringent.
QUINOA BLENDS													
Hodgson Mill UltraGrain Penne With Quinoa	👎	👎	190	1	41	3	8	12	2.50	6	0.42	Ultra-grain whole-wheat flour, durum flour, quinoa flour	Slight nutty taste that's reminiscent of whole-wheat pasta; slightly bitter and starchy. Chewy and slightly crumbly texture.
DeBoles Quinoa Plus Golden Flax Penne	👎	👎	200	2	43	3	5	8	3.60	4	0.90	Whole-grain brown-rice flour, rice flour, whole-grain quinoa flour, flaxseed, xanthan gum, ascorbic acid	Tastes of nondescript grains; one sample was moderately bitter and slightly sour. Starchy and crumbly.
Ancient Harvest Super-grain Organic Corn & Quinoa Blend Penne	👎	👎	210	1	46	4	4	8	3.00	4	0.75	Organic corn flour, organic quinoa flour	Tastes of nondescript grains; slightly sweet. Chewy, slightly crumbly texture. Astringent, with a grainy mouthfeel. Moderately bitter.

HOW WE TEST: We evaluated 13 legume- and quinoa-based pastas for nutrition and taste. Eight ounces of each pasta was cooked

in 2½ quarts of boiling water with 2 teaspoons of salt added. Using package directions, we established

the cooking time in an attempt to achieve an al dente texture before testing began. Each type (e.g., black bean) was evaluated separately.

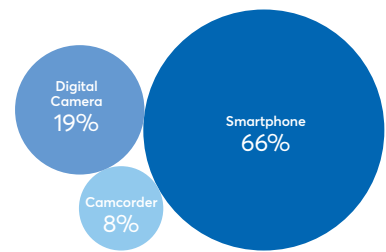
Tastings were blind, and the taste and texture descriptions are based on sampling the pastas plain.

*The serving size on this product label is 3 ounces, but we calculated the values for 2 ounces for easy comparison with the other products.

Insights

Notable news and smart solutions

VIDEO CAMS? NO. HERE'S HOW PEOPLE MOST OFTEN SHOOT VIDEO.*



How to Shoot Great Video

Digital cameras, action cams, and smartphones are portable, versatile options that can capture high-quality footage, as long as you know what you're doing.

by Terry Sullivan



*Source: InfoTrends 2016 Video End User Study.

THE ERA OF the shoulder-mounted camcorder has come and gone. Years ago it seemed like at every family event, one person would be dutifully shooting from the back of the room, often with their camera mounted on a tripod. Today those static shots look like surveillance footage, says Atlanta videographer Sarah Clawson, who shoots about 25 weddings per year with her husband, Scott.

"It's all about getting the angles," she explains. "If you're on a tripod, you're very limited." Clawson and her husband roam freely through the events they record using digital SLR cameras. They own pricey pro-grade models, but you don't have to splurge to get great results from a still camera. And in many situations a smartphone will do just fine, as will one of the current crop of highly portable action cams.

Yes, you can still find traditional camcorders for sale, but they're declining in popularity because the alternatives are more portable and versatile.

The video quality produced by phones, still cameras, and action cams ranges from pretty darned good to positively stunning. That has been apparent since 2012, when clips shot on an iPhone made their way into the Oscar-winning documentary "Searching for Sugar Man." Felix Baumgartner's daring leap from a capsule at the edge of space? It was recorded on a GoPro. And "The Avengers" arrived in theaters with scenes captured on a \$2,000 Canon 5D Mark II, a model that even a dedicated amateur might own.

As the season of family celebrations—graduations, weddings, and summer vacations—approaches, everyone in your clan will be looking to capture the action. Here are a few pro tips to help you decide which device to take with you on any given day—and how to get the most rave-worthy results.

Smartphones

\$500 to \$800



WHAT THEY DO WELL Your smartphone is usually right there in your pocket or purse, and it's easy to handle. "That's what makes smartphones great," Clawson says. "You can bend over with them, lay on the ground, just play around." The large touch screen is ideal for framing and composing shots. And an ever-growing catalog of features and mobile apps lets you flex your inner

Martin Scorsese. Want a time-lapse video of an awesome sunset? No problem. A slow-motion clip of the bride's flower toss? Coming right up!

WHERE THEY STRUGGLE

Smartphones have small image sensors, which tend to hinder performance in low-light situations. That makes it difficult to capture crisp video at night or in any indoor setting that's not flooded with sunlight. And most smartphones don't have built-in optical zoom lenses: The image just gets fuzzier when you try to zoom in with digital technology.

CUTTING-EDGE FEATURES

Apple's iPhone 7 Plus camera is one of the few with a 2x optical

zoom feature; Motorola's Moto Z Force Droid offers an add-on accessory that turns the phone into a mini movie projector.

PRO TIP "People have no idea how much the lighting around the house contributes to an ugly yellow picture," Clawson says. "Turn off the lights, open all the window blinds and you'll be amazed at the difference in video quality."

COOL ACCESSORY Ikan Fly-X3-Plus, \$250. This handheld gimbal eliminates shakes and helps you create fluid shots, complete with pans and tilts. It uses a mini motor, software, and a three-axis stabilizing system to hold the camera steady, even while you walk.



Take the Shake Out of Your Shots

Built-in image-stabilization technology can improve the quality of your video. Here's how to choose the version that's best for you.

IF YOU'VE EVER WATCHED grainy concert footage posted by a Facebook friend, you know something about the pitfalls of shooting video by hand. When the lights dim and your friend with the camera stretches his long, wavering arms out to record the scene, Bruce Springsteen ends up looking far less awesome.

The low-light environment in the arena invites distortion from every subtle shift in the camera's position because of limits in exposure time, processing power, and image sensor size.

Pro photographers solve the problem by resting the camera on a monopod. The rest of us? We have to rely on the image stabilization (IS) technology built into our cameras. Here are the IS options:

➤ **Optical.** In this case, the technology is housed inside the camera lens. Motion sensors in the assembly detect any trace of movement, and miniature motors shift the glass elements of the lens to offset the shake. Developed by Canon and Nikon in the mid-1990s, this approach has since been adopted by many smartphone manufacturers.

➤ **Mechanical.** Also known as sensor-shift stabilization, this technology, pioneered by Konica Minolta in the early 2000s, compensates for movements by shifting the image sensor mounted inside the camera body. It's not as effective as the optical image stabilization embedded in lenses, but you don't need to pay for the tech each time you purchase a new lens for your camera.

➤ **Electronic.** This is the technology you find in most action cams. Instead of hardware, it uses a software program to eliminate the effects of shake, generally at the expense of image resolution.

So given the choice, you're better off using a camera with one of the first two IS options. Once you start shopping around, though, you'll find cameras that employ more than one approach. The \$550 Sony FDR-X3000R action cam, for example, provides optical and electronic IS. And Panasonic's mirrorless Lumix GH5 offers a dual-IS system that allows select lenses to communicate with the camera body and make coordinated adjustments.

Action Cams

\$100 to \$600



WHAT THEY DO WELL Rugged and simple to use, action cams let you record life from unexpected angles. Add some accessories and they can soar on drones, ride along on surfboards, and venture beneath the waves. Most offer mobile apps that let you adjust settings using a smartphone. They also store video files on microSD cards, which can be quickly replaced, so you don't miss out on the action.

WHERE THEY STRUGGLE Like smartphones, action cams are unimpressive in low light because they have small image sensors. They usually lack optical zoom, too. And they have limited controls. Unlike old-school camcorders, they don't always have LCD screens to help with image composition. But you can rectify that problem with a mobile-phone app.

CUTTING-EDGE FEATURES The latest models from GoPro (the \$400 Hero5 Black and \$300 Hero5 Session) and Garmin (the Virb Ultra 30, \$400) respond to voice commands. Instead of reaching for a button, you just say, "GoPro, start recording!"

PRO TIP "Most action cams capture a wide-angle view," says David Patiño, who is based in New Jersey and shoots live events and interviews for commercial clients. This makes them good for recording group portraits. But if you're trying to spotlight an individual and your camera lacks an LCD, you often get more earth and sky than you'd like. So try composing your shots on the device's smartphone app. "It allows you to see everything the camera sees," Patiño says.

COOL ACCESSORY The Chesty, \$40. This adjustable harness lets you fasten a GoPro securely to your chest, freeing up your hands to, say, grip ski poles or a rafting paddle.



And the Award for Film Editing Goes To ...

... You! Video editing and sharing is simpler than ever today.

DIGITAL VIDEO EDITING is no longer a pro-level exercise. Any enthusiast with mobile apps and desktop software can now shoot, edit, and post a clip to YouTube in roughly 15 minutes—often without setting down the smartphone.

Most phones allow you to upload your video to YouTube or Facebook from just about anywhere in the world. They also have built-in tools to assist you with cropping and simple exposure adjustments. And if you want more sophisticated features to help with, say, transitions between scenes, you can download a free app such as Adobe Premiere Clip (Android and iOS), CyberLink PowerDirector (Android), or Apple iMovie (iOS and macOS).

To edit video from an action cam or a digital camera, you usually have to transfer the footage to a computer and

use software such as GoPro's free Studio program, which features an easy-to-master, applike interface. Other consumer-friendly options include Apple iMovie for Mac, \$15, CyberLink PowerDirector 15 Ultimate, \$70, Adobe Premiere Elements 15, \$80, and Corel VideoStudio Ultimate X10, \$100.

Though a bit more complicated than mobile apps, these programs let you play with the look and sound of your clips, add titles and visual effects, and employ transitions that fade, slide, and morph between scenes. They also grant you more format and resolution options—everything from low-res versions for the web to 4K versions for Blu-ray discs—when it's time to export and exhibit your work.

Digital Cameras

\$250 to \$400 for basic;
\$500 for advanced



WHAT THEY DO WELL Thanks to large image sensors and quality lenses, digital cameras—even \$600 advanced point-and-shoots—allow you to snare very good video indoors and out, day or night, even under candlelight. That's why the pros reach for DSLRs when shooting weddings and corporate events. "They're more difficult to use," Clawson says. "But they give you a cinematic look and quality. It's like viewing a movie trailer." Certain models offer swiveling displays for composing hard-to-reach shots, most can accommodate memory cards with capacities as large as 512GB, and interchangeable-lens cameras can be outfitted with a variety of lenses that create shallow depth of field,

panoramic views, or a zoom powerful enough to capture the craters on the moon.

WHERE THEY STRUGGLE Many have a 30-minute recording limit. And the bulkier they are, the more difficult they can be to hold without subjecting your videos to shaky-hand syndrome. Long lenses, especially, can amplify the effect of shivers, so these cameras often have some form of optical or mechanical image stabilization.

CUTTING-EDGE FEATURES Sony's RX100 Mark V point-and-shoot has a very wide-aperture, f/1.8-2.8 lens that lets you capture video with a shallow depth of field—a visual effect once confined to high-end camcorders.

PRO TIP According to Jeff Berlin, a Los Angeles photographer who does film work for various entertainment companies, a camera's swiveling LCD screen is a great way to resolve the shakes problem. With the screen flipped open, you hold the camera firmly at waist level, lock your elbows against your

body, and look down at the LCD to frame the footage. "With this technique," he says, "people will think you were shooting on a tripod or a stabilizer." **COOL ACCESSORY** Rode VideoMicro Compact On-Camera Microphone, \$60. If you want high-quality audio to accompany your video, try this shotgun microphone, which slides into the silver hot shoe mount on top of a DSLR. It records the voices and sounds in front of the rig while reducing the impact of chatter, laughs, and other commotion on the periphery.

A NOTE ON 4K The people who make cameras love to promote their ability to shoot 4K video. But ultra high-definition is not for everyone. "Unless you have a really good 4K TV to display the work," Clawson says, "the average consumer is not going to see the difference." Who will? Those who want the extra pixels to crop and edit their work using computer software.

Ratings > **Ready for Their Close-Up** These smartphones are ranked based on their video quality performance. Action cams are ranked in order of Overall Score.



	Brand & Model	Price	Overall Score	Test Results			Specs				
Video Rank				Camera: Video Quality	Camera: Image Quality	Display Quality	Display Diagonal Size (in.)	Display Resolution	Weight (Oz.)	Memory-Card Slot	Camera (Megapixels)
	SMARTPHONES										
1	Samsung Galaxy S6	\$575	74	⬆️	⬇️	⬆️	5.1	1440x2560	4.9		15.9
2	Samsung Galaxy S6 Edge	\$500	73	⬆️	⬇️	⬆️	5.1	1440x2560	4.6		15.9
3	Samsung Galaxy S7 Edge	\$730	80	⬆️	⬆️	⬆️	5.5	1440x2560	5.5	•	12.2
4	Samsung Galaxy S7	\$630	78	⬆️	⬆️	⬆️	5.1	1440x2560	5.4	•	12.2
5	Samsung Galaxy S5	\$550	76	⬆️	⬇️	⬆️	5.1	1080x1920	5.1	•	15.9
6	HTC 10	\$500	74	⬆️	⬇️	⬆️	5.2	1440x2560	5.6	•	12
7	Apple iPhone 6s	\$530	73	⬇️	⬇️	⬆️	4.7	750x1334	5.0		12.2
8	Apple iPhone 6s Plus	\$630	71	⬇️	⬇️	⬆️	5.5	1080x1920	6.7		12.2
9	Apple iPhone 7	\$650	72	⬇️	⬇️	⬆️	4.7	750x1334	4.9		12.2
10	LG G5	\$500	75	⬇️	⬇️	⬆️	5.3	1440x2560	5.6	•	15.9
11	Apple iPhone 7 Plus	\$770	72	⬇️	⬆️	⬆️	5.5	1080x1920	6.6		12.2
12	Google Pixel XL	\$770	75	⬇️	⬆️	⬆️	5.5	1440x2560	5.9		12.3
13	Google Pixel	\$650	73	⬇️	⬆️	⬆️	5.0	1080x1920	5.0		12.3
14	LG V20	\$670	73	⬇️	⬆️	⬆️	5.7	1440x2560	6.2	•	16.3
15	Motorola Moto Z Droid Force	\$720	72	⬇️	⬆️	⬆️	5.5	1440x2560	5.8	•	21.4

	Brand & Model	Price	Overall Score	Test Results						Features		
Rank				Picture Quality	Ease of Use	Audio Quality	Display Quality	Versatility	Still Camera	HDMI Output	Microphone Input	Remote Control
	ACTION CAMS											
1	Sony HDR-AS50	\$170	67	⬇️	⬆️	⬇️	NA	⬇️	⬇️			
2	Sony HDR-AS50R	\$320	67	⬇️	⬆️	⬇️	NA	⬇️	⬇️			•
3	Sony FDR-X1000V	\$400	66	⬇️	⬇️	⬇️	NA	⬇️	⬆️	•	•	
4	Sony HDR-AS200V	\$250	66	⬇️	⬇️	⬇️	NA	⬇️	⬇️	•	•	
5	GoPro Hero4 Silver Standard Edition	\$330	65	⬇️	⬇️	⬇️	⬇️	⬇️	⬇️	•		
6	Sony HDR-AS300R	\$400	63	⬆️	⬇️	⬇️	NA	⬇️	⬇️	•	•	•
7	GoPro Hero5 Black	\$400	63	⬇️	⬇️	⬇️	⬆️	⬇️	⬆️	•		
8	Sony FDR-X3000R	\$550	63	⬆️	⬇️	⬇️	NA	⬇️	⬇️	•	•	•
9	Ricoh WG-M2	\$220	63	⬇️	⬆️	⬇️	NA	⬇️	⬇️	•		
10	Nikon KeyMission 170	\$400	62	⬇️	⬆️	⬇️	⬇️	⬆️	⬇️	•		•
11	Garmin Virb Ultra 30	\$400	62	⬇️	⬇️	⬇️	⬇️	⬆️	⬇️	•		
12	Activeon CX Gold	\$130	62	⬇️	⬇️	⬇️	⬇️	⬆️	⬇️	•		

	Brand & Model	Price	Overall Score	Type	Test Results			Specs		
Video Rank					Image Quality	Video Quality	LCD Quality	Megapixels	Weight (Oz.)	LCD Size (In.)
	ADVANCED DIGITAL CAMERAS									
1	Panasonic Lumix DMC-GH4	\$1,750	77	M	⬆	⬆	⬆	16	21	3
2	Sony Cyber-shot DSC-RX10 II	\$1,200	79	A	⬆	⬆	⬆	20	30	3
3	Sony Cyber-shot DSC-RX100 IV	\$950	77	A	⬆	⬆	⬆	20	10	3
4	Panasonic Lumix DMC-FZ1000	\$800	77	A	⬆	⬆	⬆	20	31	2.9
5	Panasonic Lumix DMC-ZS100	\$700	72	A	⬆	⬆	⬆	20	11	2.9
6	Sony Cyber-shot DSC-RX100 III	\$750	72	A	⬆	⬆	⬆	20	10	3
7	Nikon D7200	\$1,300	74	S	⬆	⬆	⬆	24	26	3.1
8	Sony Cyber-shot DSC-RX10	\$800	72	A	⬆	⬆	⬆	20	30	3
9	Sony a7S	\$2,850	76	M	⬆	⬆	⬆	12	18	3
10	Canon PowerShot G3 X	\$850	75	A	⬆	⬆	⬆	20	27	3.1
11	Canon PowerShot G1 X Mark II	\$650	78	A	⬆	⬆	⬆	13	20	2.9
12	Canon PowerShot G7 X	\$580	75	A	⬆	⬆	⬆	20	11	2.9
	BASIC DIGITAL CAMERAS									
1	Canon PowerShot SX710 HS	\$280	65	Z	⬆	⬆	⬆	20	9	3
2	Canon PowerShot SX720 HS	\$380	63	Z	⬆	⬇	⬆	20	9	3
3	Nikon Coolpix AW130	\$300	62	R	⬆	⬇	⬆	16	8	3
>	CRO subscribers can go to CR.org for complete up-to-date ratings.									

HOW WE TEST: In these ratings charts, we ranked each device based on its performance as a video recorder. For **smartphone cameras**, the video quality is based on the judgments of trained panelists who viewed recorded video images shot at the highest-quality

setting available (up to 1080p) in multiple lighting conditions. For **action cameras**, picture quality is based on the judgments of trained panelists who viewed recorded video images shot in good light at the highest-quality setting available. Models with

"NA" under display quality do not have displays. For **digital cameras**, video quality mostly reflects footage shot in regular and low light, with audio quality and close-up capability factored in. M=mirrorless; A=advanced point-and-shoot; S=SLR; Z=superzoom

point-and-shoot; R=rugged/waterproof point-and-shoot. Please note that smartphones, action cams, and digital cameras are scored differently, so the Overall Score and ratings don't necessarily correlate.



RECALLS



CUTLERY

Calphalon is recalling some 2 million of its Contemporary Cutlery carving, chef, paring, santoku, and utility knives sold

individually and in sets from September 2008 through December 2016. The knives can break during use, causing a laceration hazard.

What to do Stop using the knives immediately. For more information and to receive a replacement knife or knives, contact Calphalon at 800-809-7267 between 8 a.m. and 5 p.m. Eastern Time Monday through Friday, or online at calphalon.com (click on Customer Support at the bottom of the page, then on Recalls).



STROLLERS

The Click & Go receiver mounts on more than 675,000 Britax B-Agile and Bob Motion Strollers can cause the car seat carrier

to disconnect from the stroller, posing a fall risk and possible injury to a child riding in the seat. The recall affects both single- and double-occupancy strollers.

What to do Dispose of the Click & Go receiver mounts and contact Britax at 844-227-0300 between 8:30 a.m. and 7 p.m. Eastern Time Monday through Friday and 9 a.m. to 3 p.m. Saturday. Additional information can be found by going to us.britax.com and clicking on Safety Notice.



LAPTOP/NOTEBOOK BATTERIES

HP and Toshiba are expanding recalls of lithium-ion computer battery packs that can overheat, posing burn and fire hazards. HP is recalling HP and Compaq packs sold from March 2013 through October 2016; Toshiba is recalling Panasonic packs sold from June 2011 through November 2016.

What to do For Toshiba, call 866-224-1346 or go to go.toshiba.com/battery for replacement information; for HP, call 888-202-4320 or go to hp.com/go/batteryprogram2016. If your battery is affected by the recall, remove it and power the computer only by plugging it into an outlet until you receive the replacement.



Can I video-chat with my kids even though I have an iPhone and they all have Androids?

Yes, though you have to do one of a number of workarounds because Apple's proprietary FaceTime isn't available on Android, says Mike Gikas, a Consumer Reports expert on smartphones.

The first is to use Skype, which has apps available for iPhone and Android. But you need to set up an account with an ID and get those you plan to video-chat with to do the same. A newer service with fewer hassles: Google's Duo app. (We can't vouch for imitators, so be sure you download the one with this precise name.) The app allows face-to-face video conversations between any combo of iPhone and Android phones. Plus it has an interesting feature called

Knock Knock. When you are calling someone who has the app, they can see a video stream preview of you as you call them, a feature that you, as the caller, can turn off if you're not comfortable with that.

Setup is quick and easy. If it's not already preinstalled on your Android smartphone, you can download it free on Google Play; iPhone owners can download it free from the App Store. Apple lovers will be relieved that they won't have to set up a Google account just to use Duo, because it's tied to your phone number, not to a Google profile. But users will have to grant the app permission to access their phone's contacts, microphone, and cameras.

As with FaceTime, Duo video service is free, but the chats you conduct over your cellular connection will count against your plan's data allowances. Use WiFi to save on data, Gikas advises.



We have more than 140 in-house experts who research, test, and compare! Send your questions to: CR.org/askourexperts ... and watch for the answers.

If something I sell at my garage sale turns out to have been recalled, am I liable in any way?

Hosting a yard sale is a great way to declutter and earn extra cash, but reselling an item that has been recalled—whether or not you're aware that it has been—is illegal and exposes you to a risk of being sued, according to Consumer Product Safety Commission spokeswoman Patty Davis. In the event that someone is injured by a recalled product you sold and pursues a civil or even a criminal action against you, you could be held responsible and have to pay damages or face other penalties.

To be safe (and make sure your buyers stay safe, too), do your due diligence before hosting a sale. Steer clear of selling high-risk items, such as cribs, bike helmets, and child car seats. But also be sure to check the status of other products, such as blenders or dehumidifiers, by going to the recall database at cpsc.gov and typing in, for example, “desk chair” to find out which models have been recalled. (If you're the buyer at a garage sale, you should also do this

before making a purchase.)

When in doubt, don't sell it. “Be vigilant, both as a consumer and as a potential seller or reseller of appliances and all consumer goods,” says James Dickerson, Ph.D., Consumer Reports' chief scientific officer.

I never got on the kale bandwagon. Is there another vegetable that's just as good for me?

You bet. The vegetable group called crucifers includes kale as well as other leafy greens such as watercress and arugula, and even broccoli, Brussels sprouts, and cauliflower; all of them are equally beneficial and have a great range of textures and flavors. “They're among the most nutritious because they're rich in vitamins and minerals, plus they contain unique disease-fighting compounds,” says Maxine Siegel, R.D., who heads CR's food-testing department. Crucifers are uniquely rich in glucosinolates, naturally occurring chemicals that break down into cancer-preventing compounds. According to a study published in the *Annals of Oncology*, eating crucifers just once weekly lowered the risk of breast, colon, and oral cancer by 17 percent; esophageal cancer by 28 percent; and kidney cancer by 32 percent. And in a large analysis from China, people who ate 6 ounces per day lowered the risk of heart disease by about 20 percent.



Take Charge of Your Heart Health

When it comes to preventing and treating heart disease, you have more control than you might think. Our guide helps you make the right choices about tests, diet, drugs, and where to go for surgery, based on our exclusive hospital ratings.

by Lauren F. Friedman



The Beat Goes On

A healthy lifestyle can cut the risk of heart attack by a third to one-half. To see this heart beat, go to CR.org/heart0517.

Each year, roughly 790,000 Americans suffer a heart attack and one in seven deaths continues to be caused by heart disease—making it the nation's leading killer.

The path to heart disease often feels unstoppable, inevitable: Your blood pressure is too high, your cholesterol keeps rising, your arteries are narrowing, and—before you know it—there are exploratory procedures and invasive surgeries scheduled.

With this Healthy Heart Report, Consumer Reports aims to provide consumers with evidence-based information for all the critical moments along the way, to help you cut through the noise of conflicting studies and swirling, often contradictory advice.

And so that you can make the best possible choices about your own well-being:

When should you take statins to lower cholesterol? What exactly is a heart-healthy diet? How low should your blood pressure go, and what's the best way to get there? Do you really need an EKG?

And, among many other questions, how do you determine the right hospital if surgery is required?

All of this can seem daunting. But we know that people have the power to change the course of this disease—even after it has begun—to improve their own odds and to make smart, thoughtful, timely decisions.

“People have a lot more control than they may think,” says Steven Nissen, M.D., chairman of the department of cardiovascular medicine at the Cleveland Clinic Foundation. “And it is never too late to start,” he says of making healthy, daily changes to one’s habits.

According to a recent analysis of current heart research, published in the *New England Journal of Medicine*, a healthy lifestyle can cut the risk of a heart attack or other coronary event by a third to one-half, even among people with a family history of the disease.

That’s what we’re talking about, being informed on everything from good fats to the very best hospitals.

Examining all the options paid off for Simone Liebling.

The night before her surgery to repair a malfunctioning valve, Liebling, 80, went to bed at midnight, same as always.

“My husband was very concerned,” she says, “but I told him to be positive, that I would be fine.”

One reason Liebling felt so confident was that she had done her research, considering several places before settling on Moses H. Cone Memorial Hospital, right in her hometown of Greensboro, N.C.

Understanding the Stages of Heart Disease

Lifestyle changes often bring results

HEART DISEASE OFTEN starts quietly, progressing from high blood pressure to clogged coronary arteries with few obvious symptoms. But too often it ends with a bang: a heart attack.

Here's how to understand each stage of heart disease so that you can work with your doctor to slow its progression or, better yet, even reverse it.

High blood pressure: Your arteries—flexible and elastic in younger years—harden with age, a problem worsened by too much body weight, not being active enough, and smoking, among other things.

In those circumstances, blood pressure starts to rise, straining your heart to push blood through your vessels with increased force.

Over time, that can damage the vessel walls, creating perfect places for cholesterol in your blood to lodge.

Atherosclerosis: A mix of high cholesterol, high blood pressure, and other risk factors can cause cholesterol to build up into plaque deposits, constraining blood flow to the heart. That's atherosclerosis, or clogged coronary arteries.

Angina: For some people, the narrowing of the coronary arteries causes chest pain when they exert themselves. That pain is known as angina.

Heart attack: People with angina are almost lucky. Angina is the pain that signals something is wrong before they have a heart attack.

But most patients don't have any warnings. Heart attacks usually happen when a plaque ruptures, causing a blood clot to form and block an artery feeding the heart. When a clot blocks blood to the brain, that's a stroke.

Aortic valve disease: Aging, combined with high blood pressure, diabetes, and other risk factors, can also damage the heart's valves, or the flaps that open and close to synchronize blood flow through the organ.

That can prevent a valve from fully opening or closing, limiting the flow of blood out of the heart or allowing blood to leak back in. Over time, that can cause chest pain or tightness, shortness of breath, fainting or dizziness, or fatigue.

Heart failure: High blood pressure, atherosclerosis, valve disease, and heart attacks—alone or combined with diabetes, thyroid disorders, and other conditions—can eventually weaken your heart, making it harder for it to pump blood through the body.

That's called heart failure, and it can lead to shortness of breath, fatigue, and swelling in the legs, neck, and abdomen.

"I wanted to get well," she says. "I wanted to get back to my wonderful life."

It was a good choice.

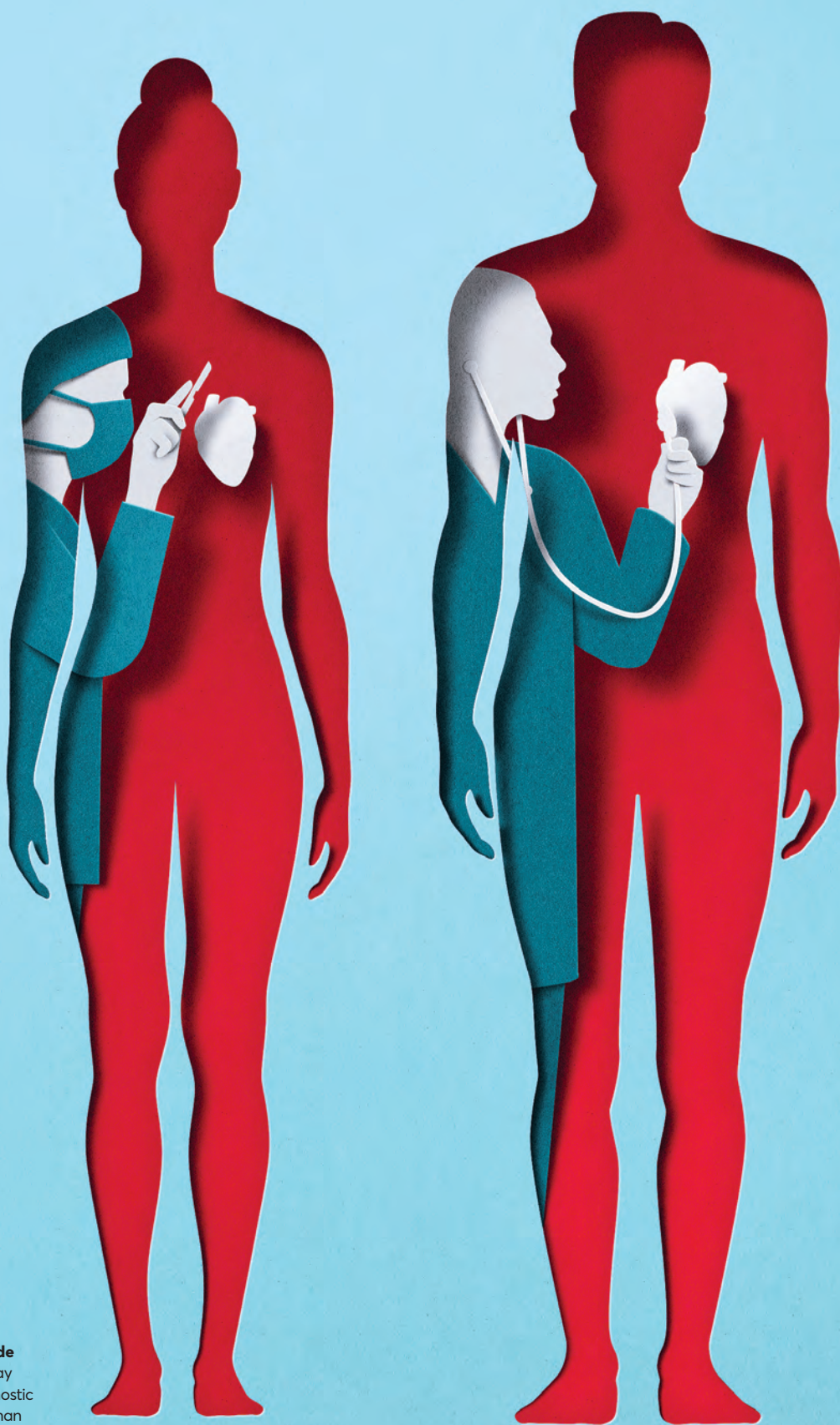
Moses H. Cone is one of roughly 70 hospitals in the country that appear in Consumer Reports' list of best hospitals for heart surgery. And it is one of fewer than 20 medical centers that earned top scores in both aortic valve replacement and coronary artery bypass surgery (see page 36).

We've published ratings of hospitals that perform heart surgery since 2014, working with the Society of Thoracic Surgeons, the nation's leading organization for physicians who operate on the heart and chest.

Our intent goes beyond helping patients choose the best hospitals. We want all hospitals to publicly report surgical results and patient outcomes, and we believe that kind of transparency leads to improvement.

And we're pleased to report that since we first published these hospital ratings, more hospitals have been added to our list.

Six months after her surgery, Liebling was back playing tennis and taking courses at a local college.



The Gender Divide
An ultrasound may be a better diagnostic tool for women than an angiogram.

Gender: The Heart of the Matter

THE NO. 1 KILLER of men and women in the U.S. continues to be heart disease. But the most obvious expression of the disease—a heart attack—tends to strike women differently.

For one thing, these attacks tend to occur later in a woman's life. On average, women have their first heart attack at age 72, compared with 65 for men.

Heart attacks are deadlier in women, too: 26 percent of women 45 and older die in the year after their first heart attack, compared with 19 percent of men, according to the American Heart Association (AHA).

To make matters worse, symptoms of the attacks are usually less obvious and more difficult to detect in women. That's why it's so important that everyone be aware of these key differences.

How symptoms differ: Women often have more subtle signs, such as jaw or back pain, nausea, and shortness of breath, according to the AHA, rather than the classic symptoms of a feeling of pain or squeezing in the chest or pain radiating to one or both arms. As a result, women may be less likely to seek medical help than men are and more likely to be misdiagnosed in the emergency room.

How care differs: When a heart attack is suspected, one of the first tests your doctor might want to perform is an angiogram, which checks for blocked or narrowed coronary arteries. But that test may miss a type of heart disease more common in women, coronary microvascular disease—which damages smaller arteries in the heart—according to research from the National Institutes of Health. In addition, plaque

tends to be spread more evenly through women's arteries, making it harder to see in a standard angiogram. So when that test is normal in a woman suspected of having had a heart attack, the doctor should consider performing an intravascular ultrasound to look inside the arteries in more detail, says Suzanne Steinbaum, D.O., director of women's heart health at Northwell Lenox Hill Hospital in New York City.

Anyone who has had a heart attack should be prescribed medications to protect the heart, such as low-dose aspirin as well as blood pressure and cholesterol-lowering drugs, and be referred to an exercise and a cardiac rehabilitation program.

But research shows women are less likely than men to get referred to those programs, or to go when referred, Steinbaum says.

The Dangers of Too Many Screening Tests

PEOPLE MIGHT BE surprised by what's not included in the checkup that family-medicine physician Lynn Oliver, M.D., provides her healthy patients: no EKG, no stress test, no 3D CT scan. Instead, just a standard blood pressure check and simple blood work to determine cholesterol and, sometimes, blood sugar levels, too.

While those fancier tests can be lifesaving if you're experiencing chest pains or are at high risk of heart disease, using them in people without symptoms is often looking for trouble, she explains.

Unnecessary testing is not just a waste of time and money but also can cause harm, says Roger Chou, M.D., a professor at the

school of medicine at Oregon Health & Science University. That often comes from false alarms that can trigger needless anxiety and a cascade of costly, sometimes risky procedures.

When to Be Tested

Here are heart tests sometimes recommended by doctors, and when taking them can make sense.

Electrocardiogram (EKG or ECG): Electrodes attached to the chest to provide information about your heartbeat. May be useful for people with symptoms of heart disease such as chest pain, and possibly for those at risk of heart disease who are starting to exercise.

Exercise stress test: Measures the heart's function while it's stressed by exercise or medication. May be useful when combined with an EKG, or in people who have an abnormal EKG.

Abdominal aortic aneurysm test: An ultrasound to look for ballooning in the body's main artery, which can be deadly if it bursts. May be useful for people with detectable lumps in the abdomen and men 65 to 75, especially those who ever smoked. Women 65 and older who ever smoked might consider it, though evidence for them is less certain.

Peripheral artery disease test: A comparison of the blood

pressure in your arms with the pressure in your legs. May be useful for people with cramping in their hips, thighs, or calves when walking or exercising.

Carotid artery imaging: An ultrasound of the arteries on either side of your neck. Narrowing of those arteries increases stroke risk. May be useful for people who have had a stroke or mini stroke (transient ischemic attack).

CT angiography: A CT scan that produces a 3D image of the coronary arteries. May be useful for people with chest pain and unclear results on an EKG and stress test.

—David Ansley

Slowing Down the Rush to Heart Surgery

Smart questions you can ask to make informed choices

S

SOMETIMES, HEART disease erupts as a full-blown emergency with sudden, crushing chest pain. That's when immediate

intervention to restore blood flow to the heart can be lifesaving.

But in many situations, the path to aggressive care moves faster than called for, which can lead to overtreatment as well as worse outcomes and complications, says William Boden, M.D., a professor of medicine at the Boston University School of Medicine. When it comes to treating heart disease, Boden says, "there are many clinical instances when less is more."

Boden and other experts suggest that when it's not an emergency, you slow down and do more research so that you can make smart decisions. That involves talking with your doctors about everything from whether you really need an expensive imaging test or invasive procedure to which hospital to choose if you do need surgery. And if you feel rushed into making a decision, "ask for a second opinion," Boden says.

Here are the key questions to ask along the way:

Do I Really Need That Test?

The heart disease treatment odyssey often starts on a treadmill in a doctor's

office, as part of an exercise stress test. That test can be essential if you have symptoms that indicate heart disease, such as chest pain while exercising, or if you're at high risk of a heart attack.

But some doctors include exercise stress tests as part of routine checkups, or as a safety check in people heading to certain surgeries.

Experts we spoke with said that's generally not a good idea, in part because in people without symptoms of heart disease the test is often more likely to reveal a harmless abnormality than identify a real problem (see "The Dangers of Too Many Screening Tests," on page 29).

So if you feel fine and are at low risk, before you agree to a stress test ask why it's necessary, says Marvin M. Lipman, M.D., Consumer Reports' chief medical adviser. "If you don't get a satisfactory answer, politely decline it or ask for a second opinion," he says.

Are Drugs or Stents Better?

If you do undergo a stress test and it has abnormal or uncertain results, your doctor will probably refer you to a "cath lab," or catheterization laboratory, for more tests. And that's where the cascade of procedures often speeds up.

In that lab, a physician first performs coronary angiography, which involves

threading a thin tube into an artery and injecting a dye so that narrowing shows up on an X-ray.

But patients are sometimes asked to sign a consent form that allows doctors, if they see restricted blood flow, to immediately perform a procedure called angioplasty to remove the blockage.

That's not usually necessary, Boden says. "What should happen is hitting the pause button and having a thoughtful, transparent discussion of all the treatment options," he says.

Performing an angioplasty involves a doctor inflating a thin balloon in the artery to widen it at the blockage, leaving a stent in place to prop the blood vessel open. It can be lifesaving when performed within hours of a heart attack.

But in other circumstances, lifestyle changes plus drugs to control blood pressure and cholesterol levels and prevent clots is at least as effective and usually safer. A 2016 review in JAMA Internal Medicine found that approach could cut the number of angioplasties by 80 percent.

One explanation for the continued overuse of angioplasty is that it is seen as a moneymaker for doctors and hospitals, says David Brown, M.D., a cardiologist at the Washington University School of Medicine in St. Louis.

Obviously, that's not a good enough reason to have it. Instead, if you're scheduled for angiography, talk with your doctor about what to do if that test finds worrisome—but not immediately dangerous—signs of harm.

It often makes sense to try two to three months of lifestyle changes and drugs first, and turn to angioplasty and stents only if those measures don't ease your symptoms enough.

Which Hospital to Choose?

In some cases, heart disease is so serious that drugs, even when combined with angioplasty, may not be enough. In that case you probably need surgery, often to either bypass blood flow around blockages in your coronary arteries or

to correct a malfunctioning heart valve. Though both problems are serious, they're not always emergencies, says Steven Nissen, M.D., chairman of the department of cardiovascular medicine at the Cleveland Clinic Foundation. Patients should be wary of doctors who do an angiogram in a nonemergency "and then say, 'We can do your bypass tomorrow,'" Nissen cautions.

Instead, your doctor can often stabilize your condition with drugs, giving you time to consider options. Though that's not something many people think of doing, Nissen says they should. "People will often do a better job comparison shopping with a car they might buy than the heart program they go to."

Unfortunately, finding that information is harder than it is for cars. But Consumer Reports now has updated ratings of almost 500 hospitals nationwide on how they perform on coronary bypass surgery and aortic valve replacement.

The ratings are published in partnership with the Society of Thoracic Surgeons (STS), which collects data directly from hospitals on several key measures, including actual mortality and complication rates.

Most other hospital ratings rely instead on billing records that hospitals submit to insurers, which tend to be less accurate, says David Shahian, M.D., a professor at Harvard Medical School who also oversees the STS data registry, quality measurement, and public reporting efforts.

In addition, STS holds hospitals to high standards, Shahian says. "So even those whose STS score is 'as expected,' or average, typically provide high-quality care, and those that earn our highest rating are truly outstanding."

Hospitals share their data voluntarily. "Low-scoring hospitals deserve credit for having the courage to report," he says. "They're demonstrating their commitment to transparency and improvement."

Which hospital you choose matters. Of the hospitals in our ratings, only about 70 appear in our chart of best heart hospitals on page 36. (Note that

Cleveland Clinic does not appear in the chart; though it earns a top score for valve replacement, it could not be rated on bypass surgery due to incomplete data. For complete, free ratings, go to [CR.org/heart-hospitals](https://www.consumerreports.org/heart-hospitals)0517.)

Choosing the right surgeon is also important. Though information about specific surgeons is even trickier to find, Consumer Reports, working with

STS, does report outcomes on heart surgery for groups of surgeons who practice together. Those ratings are available at [CR.org/heartsurgeons](https://www.consumerreports.org/heart-surgeons). If the surgical group you're considering is not listed, ask the surgeon about how well it performs on the STS measures. If the surgeon can't share that information—or won't—we suggest you keep looking.

Best Ways to Measure Your Blood Pressure

THOUGH A DOCTOR or nurse should check your pressure at least once a year, there's a good argument for doing it at home, too. Up to a third of readings done in doctors' offices are inaccurate, research suggests. Why? Some people get nervous in the doctor's office, which can cause pressure to spike, and some healthcare providers don't take readings properly.

Double-check your meds. OTC decongestants, pain relievers, and many prescription drugs and even some supplements can cause pressure to rise. **Watch caffeine.** It can cause a temporary rise in blood pressure, so avoid coffee or energy drinks before your reading. **Go to the bathroom.** A full bladder can raise your top number, or systolic level, by 15 points. **Sit correctly.** Sit for

5 minutes. Have your back supported, your feet on the floor with legs uncrossed, and your arm supported with the cuff at heart level. **Measure twice.** If a reading is high, have it rechecked at the end of the exam. **Remain quiet.** Talking can raise the upper number by up to 10 points. **Check the cuff.** Readings taken over clothing or with too small a cuff can be off.

		Brand & Model	Price	Overall Score	Test Results		
Rec.	Rank				Accuracy	Convenience	Comfort
		ARM MONITORS					
✓	1	Omron 10 Series BP786N	\$75	84	⬆️	⬆️	⬆️
💰	2	Rite Aid Deluxe Automatic BP3AR1-4DRITE	\$60	83	⬆️	⬆️	⬇️
✓	3	A&D Medical UA767F	\$70	81	⬆️	⬆️	⬆️
💰	4	ReliOn (Walmart) BP200 HEM741CRELN4	\$40	81	⬆️	⬆️	⬆️
	5	Panasonic EW 3109 W	\$45	75	⬆️	⬇️	⬇️
		WRIST MONITORS					
	1	Omron 7 Series UltraSilent BP652N	\$60	77	⬆️	⬆️	⬆️
	2	Up & Up (Target) TC220	\$40	77	⬆️	⬇️	⬆️
	3	ReliOn (Walmart) BP300W 6021RELN	\$50	67	⬆️	⬆️	⬆️
	4	Omron 10 Series Plus BP653	\$100	63	⬇️	⬆️	⬆️
	5	Rite Aid RC211	\$50	52	⬇️	⬇️	⬆️
	>	CRO subscribers can go to CR.org/blood-pressure-ratings for full ratings.					

Replacement cuffs for all the models listed in the ratings should be available through the manufacturer.

The Healing Power of a Heart-Healthy Diet

*More plants and healthy fats,
less meat and sugar
is the doctor-recommended
plan for a longer life.*

DIETARY ADVICE FOR preventing heart disease used to focus on numbers. How many grams of fiber should you consume? How many milligrams of sodium is too much? What percentage of your calories should come from fat?

That's a problem, says Dariush Mozaffarian, M.D., dean of the Friedman School of Nutrition Science and Policy at Tufts University. "Eating that way doesn't make practical sense, and it's easy to get confused."

Focusing too much on specific nutrients and not enough on overall dietary patterns can also harm your heart in the long run. For example, a low-fat diet can be bad for your heart if you get there by eating lots of sugar and refined grains (such as white bread) and avoiding nuts, olive oil, and other fatty but heart-healthy foods.

A true heart-healthy diet can be powerfully effective, says Walter Willett, M.D., chairman of the department of nutrition at the Harvard School of Public Health. "Diet alone can reduce heart disease risk by about 30 percent," similar to taking cholesterol-lowering drugs, he says.

Eating right for a healthy heart doesn't have to be

complicated, either. Follow these tips and the numbers will take care of themselves:

Redesign Your Plate

Make vegetables, fruits, whole grains, nuts, and beans the centerpieces of your meals, says Linda Van Horn, Ph.D., professor of preventive medicine at the Feinberg School of Medicine at Northwestern University. Those foods contain heart-protective antioxidants, fiber, and healthy fats. Though eating more of each of those foods cuts heart disease risk some, an overall plant-based diet has an even greater effect. One study of about 450,000 adults found that people whose diets were 70 percent plants had a 20 percent lower risk of dying from heart disease over 12 years compared with those whose diets centered on meat and dairy.

Think of Meat as a Condiment

That means eating beef, poultry, and pork occasionally or in small, 3- to 4-ounce portions—about the size of a deck of cards. Especially avoid processed meats, such as bacon, deli meat, and sausage. A review by Harvard researchers linked a daily serving, equal to one hot dog

or two slices of bacon, to an increased risk of early death from heart disease and cancer.

Limit Sweets

Too much added sugar—sugar that is put into foods, not the naturally occurring sugar found mainly in fruits and dairy—raises blood pressure and cholesterol levels, according a 2014 review in the journal *Open Heart*. Limiting sugary beverages, the leading source of added sugars in the American diet, is key. Having just one soda per day could raise diabetes risk by about 20 percent.

Don't Fear All Fat

Many fatty foods—avocados, fatty fish like salmon, nuts, seeds, and olive and other vegetable oils—are rich in heart-healthy unsaturated fats. New U.S. Dietary Guidelines no longer limit how much of those fats you eat as long as you keep your total calories in check.

But you should still try to avoid foods packed with saturated fat (such as meat, cheese, and butter) and trans fat (in foods with partially hydrogenated oils). Those foods cause your body to produce more cholesterol, the substance that gets deposited in your artery walls.

The best bet, Willett says, is

to swap saturated-fat-laden foods for those rich in unsaturated fats. A 2015 Harvard study found that substituting 5 percent of saturated fat in your diet with the unsaturated variety lowered heart disease risk by up to 25 percent, depending on the foods chosen. On the other hand, risk remains high if you cut back on saturated fat but eat more sugary foods or refined grains such as white bread, white rice, and some cereals.

Give Eggs a Go

Many people think they should completely avoid eggs because they are high in cholesterol, adding to the amount that your body produces on its own. But new research shows that the cholesterol in food has a smaller impact on your overall cholesterol levels than once thought. For foods that are high in cholesterol but low in saturated fat—such as eggs, lobster, and shrimp—a serving each day is fine.

Minimize Processed Foods

You don't have to avoid everything in a bag or a box, but such foods do tend to be higher in refined grains, sugar, and, especially, sodium.

—Hallie Levine



Eat Your Heart Out

Not all low-fat diets are good for you, especially if you neglect foods such as nuts and olive oil.

Cholesterol and Blood Pressure Drugs

Who really needs them—and who doesn't: the latest medical thinking

EXPERTS AGREE THAT high blood pressure and high cholesterol increase the risk of having a heart attack. So you might think they also agree on when you should take drugs to control them. They don't.

Earlier this year the American College of Physicians issued more lenient guidelines for blood pressure in people 60 and older: They don't need drugs until their systolic, or upper, blood pressure number goes above 150, the ACP now says. But the American Heart Association sticks with the traditional cutoff of 140. And last year, the U.S. Preventive Services Task Force suggested that people who don't have particularly high cholesterol levels can still benefit from cholesterol-lowering statin drugs.

"There are just too many groups issuing recommendations, and that has made things more confusing," says Steven Nissen, M.D., chairman of the department of cardiovascular medicine at the Cleveland Clinic.

Taking drugs when they aren't needed can pose problems. Side effects of blood pressure medications include persistent coughing, diarrhea, nausea, and dizziness. Statins can cause muscle weakness, and possibly kidney damage and type 2 diabetes.

Here's our guide through the maze, with advice from Nissen, other experts, and our Best Buy Drugs team:

1. Focus on your overall risk.

Though blood pressure and cholesterol levels are important, other factors play a role, too—including your age, gender, race, and whether you smoke or have diabetes. "Everyone 40 and over should know their overall risk of having a heart attack or stroke," says Marvin M. Lipman, M.D., Consumer Reports'

chief medical adviser.

So he and other experts recommend estimating your 10-year risk by using a calculator developed by the American College of Cardiology and the American Heart Association, at tools.acc.org/ASCVD-Risk-Estimator. The ideal is a 10-year risk that's less than 7.5 percent.

2. Don't rush to drugs.

If your 10-year risk is greater than 10 percent, or if your LDL (bad) cholesterol level is over 190, you should start a statin. But if your risk is between 7.5 and 10, it can be worth trying lifestyle changes first, our consultants say.

That means stopping smoking, losing excess weight, being active, consuming a heart-healthy diet, drinking alcohol in moderation only, and getting blood sugar levels under control. If that doesn't lower your risk enough after three to six months, consider a statin, even if your LDL cholesterol isn't elevated.

The same basic strategy applies to blood pressure. If it's moderately elevated (150 to 160 for people 60 and older; 140 to 150 for others), consider

drugs only if several months of diet and lifestyle changes weren't enough.

"Lifestyle changes can slash your risk of heart attack, and in some cases eliminate or reduce your need for medication," Lipman says. For example, regular exercise can lower your systolic pressure by up to 9 points. And every 11 pounds of excess weight lost can reduce it by 2.5 to 10 points. And avoiding excess sodium (anything beyond 2,400 mg in a day) can lower it between 2 and 8 points in some people.

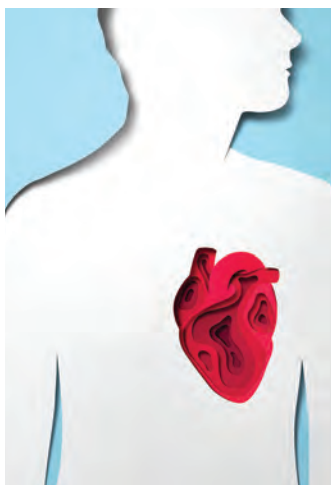
3. Get the right medication.

Statins are thought to work not only by lowering LDL cholesterol but also by stabilizing plaque deposits in the arteries, making the deposits less likely to rupture and send blood clots through the body.

People with a history of heart attack or stroke, or at very high risk of one (greater than 20 percent), should start with higher doses of a potent statin: 40 to 80 mg of atorvastatin (Lipitor and generic) or 20 to 40 mg of rosuvastatin (Crestor and generic). Other people who need a drug should start with lower doses of those or other statins: 40 mg of lovastatin (Mevacor and generic), pravastatin (Pravachol and generic), or simvastatin (Zocor and generic).

Doctors use several different kinds of drugs to lower blood pressure, and for people with levels above 150 it can take a combination to control the problem. Still, it usually makes sense to start with the oldest, safest, and least expensive drug: diuretics, or water pills, such as chlorthalidone or hydrochlorothiazide. If that doesn't work, you may need to switch to or add an ACE inhibitor, calcium channel blocker, or other kind of drug.

—Steve Findlay



Why Hospitals Need to Share Surgery Success Data

Consumers deserve full transparency about the performance of the hospitals they choose.

MORE THAN 1,000 U.S. hospitals perform heart surgery, and almost half voluntarily share their complication and mortality rates with Consumer Reports. That's a good start, and up 16 percent from 2014, when we first published heart hospital ratings. But it also means that many hospitals still don't make that information readily available to patients.

That's a problem, says David Shahian, M.D., who oversees data and quality measures at the Society of Thoracic Surgeons (STS), the organization that gathers the numbers from hospitals and shares them with Consumer Reports.

Public reporting not only provides vital information to patients about where to get heart surgery but also encourages hospitals to improve, "by comparing them to their peers and showing them where they are falling short," he says. "We believe transparency and sharing your outcomes is a professional ethical responsibility."

We contacted about 30 hospitals that perform the most heart surgeries but don't report to Consumer Reports to ask why not—and if they would share results with us, and with patients.

What Hospitals Say

Some hospitals, such as the Mayo Clinic in Rochester, Minn., said they missed the deadline. One, Kansas Heart Hospital in Wichita, told us that it doesn't report due to the costs of belonging to the STS database, which usually come to several thousand dollars per year.

Several prominent hospitals, including Cedars-Sinai Medical Center in Los Angeles and New York-Presbyterian

Hospital in New York City, said they provide data to STS, and make it available on the STS website (sts.org/adult-public-reporting-module) but did not consent to publish that information through Consumer Reports.

Providing patients with that information should be a priority for any facility, especially those with national standing, says Doris Peter, Ph.D., director of Consumer Reports' Health Ratings Center. "Hospitals that do these procedures likely profit nicely from them, and I would expect them to invest some of that into improving quality and sharing data with the public."

How to Get the Data You Need

Shahian says that if the hospital you're considering doesn't share its data with Consumer Reports or STS, try to get that information on your own. But calling the hospital directly isn't the best bet: When we tried that at several hospitals, the staff wasn't able to connect us with the right person to answer our questions. Instead, Shahian recommends asking your surgeon these questions:

- Does the hospital where you perform surgery participate in the Society of Thoracic Surgeons database?
- If so, how does it perform in the STS ratings, and would you be willing to go over their most recent report with me?
- If the surgeon won't have that discussion or says the hospital doesn't collect the data, Shahian says to consider another doctor and medical center.

—Catherine Roberts

If Your Baby Needs Heart Surgery

About 40,000 infants in the U.S. are born with a heart defect each year, and about a quarter require one or more surgeries in their first months.

Now Consumer Reports and the Society of Thoracic Surgeons are publishing ratings of 50 hospitals that perform those surgeries. Only eight earned top scores:

- Advocate Children's Hospital, Oak Lawn, Ill.
- Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago
- Children's Hospital of Wisconsin, Milwaukee
- Le Bonheur Children's Hospital, Memphis, Tenn.
- MUSC Children's Hospital, Charleston, S.C.
- Penn State Hershey Children's Hospital, Hershey, Pa.
- Phoenix Children's Hospital, Phoenix
- Texas Children's Hospital, Houston

For full, free ratings and advice on choosing a pediatric heart hospital, go to CR.org/kidshs0517.

—Jeneen Interlandi



LEARN

We know you're hearing a lot about changes to health insurance and have questions and concerns. In our inaugural CR Consumer Voices Survey earlier this year, 55 percent of consumers said they're not sure that they or their loved ones will be able to afford insurance to secure healthcare. Find our advice on this fast-moving issue at CR.org/healthinsurance0517. To see how Consumers Union, the policy and mobilization arm of Consumer Reports, works to ensure access to affordable health insurance, go to ConsumersUnion.org/protect-our-healthcare. Look for more coverage and guidance in the magazine in the months to come.

Ratings > Surgery Success Rates Below are hospitals that share their data with CR and performed well in both heart bypass and aortic valve replacement, in terms of complications, mortality, and other factors. Hospitals with top scores for both are listed first. For free ratings of almost 500 hospitals nationwide, go to [CR.org/hearthospitals0517](https://www.ccr.org/hearthospitals0517).

NORTHEAST



Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

Hospital	Location	Coronary Artery Bypass Surgery	Aortic Valve Replacement Surgery
Cape Cod Hospital	Hyannis, MA	⬆️	⬆️
Jeanes Hospital	Philadelphia, PA	⬆️	⬆️
Steward St. Elizabeth's Medical Center	Brighton, MA	⬆️	⬆️
The Valley Hospital	Ridgewood, NJ	⬆️	⬆️
UMass Memorial Medical Center	Worcester, MA	⬆️	⬆️
Vassar Brothers Medical Center	Poughkeepsie, NY	⬆️	⬆️
Baystate Medical Center	Springfield, MA	⬇️	⬆️
Catholic Medical Center	Manchester, NH	⬆️	⬇️
Forbes Hospital	Monroeville, PA	⬇️	⬆️
Heritage Valley Beaver	Beaver, PA	⬇️	⬆️
Jersey Shore University Medical Center	Neptune, NJ	⬆️	⬇️
Massachusetts General Hospital	Boston, MA	⬇️	⬆️
Mount Auburn Hospital	Cambridge, MA	⬆️	⬇️
Penn State M.S. Hershey Medical Center	Hershey, PA	⬇️	⬆️
Robert Wood Johnson University Hospital	New Brunswick, NJ	⬇️	⬆️
St. Joseph's Hospital Health Center	Syracuse, NY	⬇️	⬆️
St. Luke's University Hospital	Bethlehem, PA	⬆️	⬇️
The Mount Sinai Hospital	New York, NY	⬇️	⬆️
UPMC Hamot	Erie, PA	⬆️	⬇️
Yale New Haven Hospital	New Haven, CT	⬇️	⬆️
York Hospital	York, PA	⬆️	⬇️

SOUTH




Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, Washington, D.C.

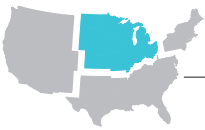
Cone Health - Moses Cone Memorial Hospital	Greensboro, NC	⬆️	⬆️
Emory Saint Joseph's Hospital	Atlanta, GA	⬆️	⬆️
Lynchburg General Hospital	Lynchburg, VA	⬆️	⬆️
Memorial Regional Hospital	Hollywood, FL	⬆️	⬆️
Orlando Health	Orlando, FL	⬆️	⬆️
Sarasota Memorial Health Care System	Sarasota, FL	⬆️	⬆️
The Heart Hospital of Baylor Plano	Plano, TX	⬆️	⬆️
Vidant Medical Center	Greenville, NC	⬆️	⬆️
Duke Regional Hospital	Durham, NC	⬇️	⬆️
Harlingen Medical Center	Harlingen, TX	⬆️	⬇️
Holston Valley Medical Center	Kingsport, TN	⬆️	⬇️
King's Daughters' Medical Center	Ashland, KY	⬆️	⬇️
McLeod Regional Medical Center	Florence, SC	⬆️	⬇️
MedStar Heart Institute MedStar Washington Hospital Center	Washington, DC	⬆️	⬇️
Morton Plant Hospital	Clearwater, FL	⬆️	⬇️
Naples Community Hospital	Naples, FL	⬆️	⬇️
Providence Hospital	Columbia, SC	⬆️	⬇️
Saint Thomas Midtown Hospital	Nashville, TN	⬆️	⬇️
Saint Thomas West Hospital	Nashville, TN	⬆️	⬇️
The Medical Center at Bowling Green	Bowling Green, KY	⬆️	⬇️

SOUTH *Continued*



Hospital	Location	Coronary Artery Bypass Surgery	Aortic Valve Replacement Surgery
TriStar Centennial Medical Center	Nashville, TN		
University of Tennessee Medical Center	Knoxville, TN		
University of Virginia Health System	Charlottesville, VA		
Vanderbilt University Medical Center	Nashville, TN		
WellStar Kennestone Regional Medical Center	Marietta, GA		
Winchester Medical Center	Winchester, VA		

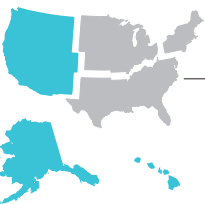
MIDWEST
















Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

Boone Hospital Center	Columbia, MO		
St. Cloud Hospital	Saint Cloud, MN		
Advocate Lutheran General Hospital	Park Ridge, IL		
Borgess Medical Center	Kalamazoo, MI		
Edward Hospital	Naperville, IL		
Henry Ford Macomb Hospital	Clinton Township, MI		
Hillcrest Hospital	Cleveland, OH		
Kansas Medical Center	Andover, KS		
Nebraska Methodist Hospital	Omaha, NE		
OSF Saint Anthony Medical Center	Rockford, IL		
St. John Providence System - St. John Hospital and Medical Center	Detroit, MI		
University Hospitals Case Medical Center	Cleveland, OH		
University of Wisconsin Hospital and Clinics	Madison, WI		

WEST



Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

Kaiser Sunnyside Medical Center	Clackamas, OR		
Dixie Regional Medical Center	Saint George, UT		
El Camino Hospital	Mountain View, CA		
Kaiser Foundation Hospital - Los Angeles Medical Center	Los Angeles, CA		
Portneuf Medical Center	Pocatello, ID		
Providence Sacred Heart Medical Center and Children's Hospital	Spokane, WA		
Ronald Reagan UCLA Medical Center	Los Angeles, CA		
Saint Joseph Hospital	Denver, CO		
Sequoia Hospital	Redwood City, CA		
St. Joseph Medical Center	Tacoma, WA		
Stanford Health Care	Palo Alto, CA		
Virginia Mason Medical Center	Seattle, WA		

HOW WE RATE HOSPITALS: The data come from the Society of Thoracic Surgeons for hospitals that have agreed to share their information with us. **Bypass surgery ratings:** This reflects a hospital's performance in isolated coronary artery bypass graft surgery between July 2015 and June 2016. The rating is a composite of four measures: survival (percentage of patients who leave the hospital and survive at least 30 days after surgery), complications (percentage of patients who avoid the most serious complications, including needing a

second operation, developing a deep chest infection, suffering a stroke or kidney failure, and requiring prolonged ventilation), best surgical technique (percentage of patients who receive at least one graft from an internal mammary artery, located under the breastbone, which improves survival), and right drugs (percentage of patients who receive beta-blockers before and after surgery to control blood pressure and heart rhythm, aspirin or similar drugs to prevent blood clots, and a drug to lower cholesterol). **Aortic valve replacement ratings:** This reflects

a hospital's performance in surgical aortic valve replacement between July 2013 and June 2016. It does not include data for a newer procedure, transcatheter aortic valve replacement. The valve replacement rating is a composite of two measures: survival (percentage of patients who leave the hospital and survive at least 30 days after surgery) and complications (percentage of patients who avoid the most serious complications, which are the same as for bypass). For details, go to CR.org/howweratehospitals.

Pretty in Paint

Choosing a color is the easy (and fun) part. Knowing how to spot quality is difficult. That's why we run 3,000 tests on 132 cans of paint—so you can choose the right one for your home.

by **Kimberly Janeway**

THE PAINT AISLE can be a lonely and mystifying place. Store shelves are stacked high with cans that look almost identical, bearing names full of promise: Premium, Premium Plus, Premium Plus Ultra, Emerald, Diamond, and so on. Prices per gallon hopscotch from \$20 to \$60 to \$100, and it's difficult to know whether you're paying for quality or hyperbole.

Even within the same paint brand (including brands that get top scores), there are performance differences that names won't illuminate. In Consumer Reports' extensive lab tests, Behr's Premium Plus Enamel (\$28 per gallon) performed almost as well as its Marquee (\$43 per gallon) and left a smoother finish while delivering a \$15 savings. And despite its compound-superlative name, Behr Premium Plus Ultra (\$36 per gallon) got almost the same high marks as both its Behr cousins in our tests. Clearly, naming and pricing aren't reliable indicators of quality. But our tough tests are.

Bear in mind, also, the motives of those you might ask for advice. Some contractors, for example, want to get in and out of your house fast in order to move on to another job. Hence, they care more about how fast paint

dries—and yes, there are differences—so they can apply a second coat quickly.

But we test paint with the homeowner in mind, which makes durability an important factor in our evaluation, says Enrique de Paz, an engineer who has run our paint labs for 11 years. “A paint that repels stains, holds up to scrubbing, and still keeps its sheen is what counts in the home,” he says. “Consumers need a paint that stands up to the wear and tear of family life, not just something that looks nice in a pristine showroom.”

That's why the ratings chart you'll see on page 43 includes all of the qualities that make a paint great—and we don't take into account how fast it dries. We do, however, give higher marks to paints that cover an old color best with just one coat. So when looking at our ratings, consider the Overall Score first. Then focus on the performance in specific tests, such as resistance to staining or mildew, to help you pick the right paint for your project.

For example, your kid's room may take more of a beating than your living room. Bathrooms require paint that prevents mildew. For a look at what our tests mean, see “Translating Our Test Terminology,” on page 42.

Whiteout

For those not afraid to go beyond white, try

LEMON BURST

T17-20 from Behr, our top brand.

Why Sheen Matters

The choice of finish is a question of design and function. And there are real differences in both.

Flat and Matte

Flat has a nonreflective finish; matte has a very low luster. A paint line usually comes in one or the other. Both finishes minimize any imperfections on walls by absorbing light that would otherwise refract and bounce every which way. These finishes stain easily, so they're best suited for ceilings, bedrooms, and walls where small handprints or big splatters aren't common.

CONSIDER: Any paint that scored Very Good or Excellent in our tests when it comes to hiding and scrub resistance, such as the top-rated Behr Marquee or Valspar Reserve, each about \$43 per gallon.

Eggshell and Satin

Eggshell is shinier than matte but still has a soft look. Satin is more lustrous and usually easier to clean. Some paint lines offer both finishes. They're easier to clean than flats or mattes, making them ideal in the widest range of applications—kids' rooms, hallways, living rooms. They can be used on both walls and trim, and when done in the same color, your eye is directed to the furniture and

wall art, not the trim. Take the time to prep walls, however, because the paint's sheen can accentuate even slight imperfections on the surface.

CONSIDER: Paints that not only hide well but also don't leave visible roller marks, and hold up to scrubbing. Behr Premium Plus Enamel, \$28, and Benjamin Moore Aura, \$54, are two examples.

Semigloss

This is the shiniest of the sheens. Paints with this finish are formulated to fend off stains and are usually a cinch to clean. Sticky fingers and moisture from steamy showers pose no problem. Semigloss is a great choice for highlighting trim and doors. Extremely smooth, well-prepped surfaces are a must. And it's better not to scrub aggressively; this sheen is the most likely to dull if you do.

CONSIDER: Any paint that hides well and stands up to scrubbing yet still holds its sheen, such as Clark+Kensington Enamel, \$32.



WATCH

To watch a video on what it takes to run 3,000 tests on our interior paints, go to [CR.org/paints0517](https://www.consumerreports.org/paints0517).

What's in a Name?

They're a lot less serendipitous and a lot more strategic than you might think.

PAINT THE WALLS in your foyer Lemon Pound Cake and the look is sunny and appetizing. Choose Marilyn's Dress for your walls and the soft gray sets the stage for a sophisticated entrance.

The process of coming up with these names can be surprisingly rigorous, involving color specialists, marketing pros, and lawyers—always lawyers.

Choosing a color is where consumers often start when making their buying decisions, even if that color is white. Considering that sales of paint and coatings total an estimated \$30 billion annually and that there are dozens of paint lines to choose from, you start to understand how competitive the industry is and why naming paint colors is serious business for manufacturers. How else can you explain the hundreds of whites available, including popular picks such as Silent White, Wedding White, Parchment White, and Frost?

In the past, all a name needed to do was describe a color—for example, Bright Red, says Janet Davidson, marketing manager at Ace Hardware. “Today, we want consumers to connect with colors,” she explains. “So instead that color might be called ‘Bold and Beautiful.’ ” What’s more, the name can be a tie-breaker. “We have heard in research that when it comes down to consumers’ last couple of colors, sometimes it’s a name preference that ultimately decides it.”

Can a name really have that much sway? Of course. “Color experts are bringing up color associations we all have to things in the world, which

Your Color Future Starts Here

Feast your eyes on these hot shades that forecasters from top manufacturers have anointed for 2017, taking their cues from fashion, textiles, and the arts.



Behr **FIRED UP T17-19** is true to its name: an energetic shade ideal for an accent wall.



Valspar **CRUSHED OREGANO 6007-6C** introduces zing and spice to a kitchen.



Olympic **CLOUDBERRY OL677.3** is serene and soothing—nice for a bedroom.



Benjamin Moore **SHADOW 2117-30**, a bold amethyst, adds sophistication to any room.



Glidden **BYZANTINE BLUE 50BB 32/117** dazzles when paired with white.



Sherwin-Williams **POISED TAUPE SW6039** works as a calming neutral in a living room.

then trigger a mood, such as happy, calm, or erotic,” says Leslie Harrington, a color researcher who has a Ph.D. in color strategy. The Behr paint team, for example, considers the emotions a color name might evoke or an identification people might make with it, such as feeling adventurous or comforted.

“Names can typically be sorted into four descriptive categories: visual, geographical, emotional, and experiential,” says Diana Olvera, Behr’s color marketing manager. Highly visual names include Coffee Beans and Wasabi. Travel-inspired names such as Parisian Cafe and Kalahari Sunset are

meant to transport you to a dream scenario or conjure up a fond memory.

Inspiration for names can come from anywhere, including nature, fashion, and pop culture. “We have a lot of fun creating experiential names like Strike a Pose, LOL Yellow, or Almost Famous, which give an abstract sense of a certain attitude or trend,” Olvera says. Text Me, a blue from Ace Hardware’s Clark+Kensington line, is clearly aimed at younger consumers, who manufacturers know will be buying paint for decades.

So have fun reading the names, but remember you can color-match from any brand and call it whatever you like.

Which White Is Right?

➤ We asked Leslie Harrington, a color researcher in Old Greenwich, Conn., to analyze popular whites from CR's top five paint brands using a device that reveals a color's cool or warm undertones. She arranged them from cool to warm, and then we picked one of each from each manufacturer to create the scale below. Cool whites contain blue and appear brighter—ideal for crisp, contemporary settings as well as work areas like a garage, where you really need to see what you're doing. Warm whites have yellow undertones that create a cozier feel and work well across a variety of living areas in a traditional setting. It's tricky to mix cools and warms without the warms coming off dirty.

AT THE COOL END OF THE SCALE

Valspar **SWEET SLUMBER 7004-12** (Lowe's)

Glidden **SWAN WHITE 98YY 82/022** (Home Depot and Walmart)

Behr **FROST 57** (Home Depot)

Benjamin Moore **DISTANT GRAY OC-68**

Clark+Kensington **CHALK CW-C2** (Ace)

AT THE WARM END OF THE SCALE

Behr **ANTIQUE WHITE 23** (Home Depot)

Valspar **QUAIL EGG 7002-12** (Lowe's)

Clark+Kensington **ANTIQUE WHITE CW-W7** (Ace)

Benjamin Moore **SIMPLY WHITE OC-117**

Glidden **PARCHMENT WHITE 60YY 83/062** (Home Depot and Walmart)

Savvy Ways to Save Money

Tips from our testers and secret shoppers.



Paint prices in our ratings range from \$17 to \$105 per gallon. But a higher price doesn't guarantee quality. Here's how to lower your costs without sacrificing your satisfaction:

1. Online **paint calculators** tell you how much you'll need. You'll find these handy tools on the websites of paint retailers and manufacturers. "Pay attention to whether the calculator is assuming one or two coats," says CR's paint expert, Enrique de Paz. "If you're using one of the top-rated paints to cover old paint, assume that you will need only one coat."

2. Facebook pages for manufacturers and retailers can be a resource for **coupons, rebates**, and news about sales.

3. **Five-gallon containers** usually cost less than buying five 1-gallon cans when tackling big jobs.

4. "Oops" paints or "mis-tints" are containers that have been returned or left at a store after a change of heart, and we've seen **"oops" cans for \$9 or less**. Ask about them at the paint counter. If only a gallon is available and you need two, buy a gallon of the regular version in the same color and mix them together to get a consistent color.

5. Shop during the week leading up to **three-day holiday weekends** for Memorial Day and the Fourth of July. That's usually when you'll find sales.

To Prime or Not to Prime

➤ That is the question. About a decade ago, manufacturers introduced so-called self-priming paints, touted to allow consumers to skip priming.

But people still debate whether that's a good idea.

"Contractors rarely use self-priming paints," says Deborah Zimmer, a spokeswoman for the Paint Quality Institute, the education division of the Dow Chemical Company. "They worry that if the paint-and-primer product doesn't give them the appearance or performance

they need, they will waste time having to redo the job."

Typically, contractors use a primer and then two coats of paint—the primer to seal the surface and improve paint adhesion and the paint to provide color and protection.

"Contractors like to stick with what they know," Zimmer says.

As for consumers, we think you're better off with the new approach. Most of the paints CR buys and tests are self-priming, and we've found that they work well.

"Self-priming paints have improved over the years to

the point where you no longer need to prime," says CR's paint expert, Enrique de Paz. "And I would say that's true whether there's paint already on the walls or it's new construction."

But why not use an inexpensive primer plus one coat of good paint?

"It might seem like it would save you money, but primers do not hide as well," de Paz says. "If your walls are smooth and you're putting a similar or darker color over light, one coat of self-priming paint that's excellent at hiding will do the job."

Translating Our Test Terminology

Here's what makes a paint great. See our ratings chart on the facing page.



Hiding. How many coats will it take to nail the job? We test how well the paint covers an existing paint color in one coat, then two. "The best-hiding paints will cover all but the darkest colors with only one coat," says our tester, Enrique de Paz. "That's why we recommend that when you buy paint, assume that one coat will do the job."

Stain resistance, for when life gets messy. We simulate handprints, oily splatters, and other messes in this test to determine how well a paint resists them. The ranking here is a glimpse into the future of your kitchen walls.

Gloss-change resistance, or how it withstands a scrubby sponge. Clean some surfaces and the paint becomes dull; others get shinier. Of all the sheens, semigloss is the most likely to change. If the surface you're painting needs to be wiped down often—think handrails and kitchen cabinets—be sure to pick a paint that scored Very Good or Excellent in this test.

Scrub resistance, or how tough it is. We scrub surfaces with a stiff brush and an abrasive cleaner to see whether the paint wears away. All of the paints we tested scored Very Good or Excellent, meaning they'll withstand scuff marks and many aggressive cleanings and remain intact.

Surface smoothness, or how flat and uniform the surface is after painting. Only when a paint leaves a glassy-smooth surface can it score Excellent in our test. A Very Good means you won't see brush and roller marks; Good indicates a slight orange-peel finish. "Keep in mind that even a paint that scored well here can't change the surface of the paint that's already on the wall," de Paz says. "That's why prep is critical."

Resisting mildew and more. Most paints did well in our tests for resisting mildew, fading, and sticking—meaning they weren't tacky when dry, which is critical when painting windows and doors. You'll see a black dot in those columns if they performed well. If they didn't, take note if your room gets a lot of sun or you're painting a bathroom or kitchen.

Five Secrets to Great Prep

Even if you're using a top paint, the results will disappoint if the surface isn't well-prepared.

SMOOTH OVER. Scrape away cracked or peeling paint with a metal putty knife, and use it to remove bumps, dried-on paint, and edges around nail holes. Taper any sharp edges where old paint remains by sanding very lightly with very fine sandpaper.

FILL GOUGES. Apply a lightweight, fast-drying spackling compound, such as Fast 'N Final. Rub a tiny dab into the holes using your finger. (With a putty knife, you're more likely to use too much spackle, leaving lumps.) Let dry, then sand smooth with a scrub sponge to clean the wall.

CLOSE GAPS. Apply caulk to the gaps around windows and trim using a wet fingertip to smooth it flush as you go.

REMOVE COBWEBS. Paint needs a clean, dry surface to adhere. Dust ceilings, walls, and trim with a duster on a pole extension. Or cover a broom's bristles with an old pillowcase, and dust.

CLEAN UP. Mix a low-suds detergent such as Spic & Span in a bucket of water. (Sudsy detergents will leave the surface too slippery.) Then use a scrub sponge to clean and sand imperfections, roughing up the surface for better paint adhesion.

When to Call a Paint Pro

▶ Painting may be the most common DIY project, but sometimes you're better off sending an SOS and calling in a pro. So says Deborah Zimmer of the Paint Quality Institute, part of the Dow Chemical Company. Here's her list of when to cry uncle: **There's extensive prep work.** If there are layers of old paint that are peeling or chipping, or holes or major cracks in the walls, you could spend days prepping. And

homes built before 1978 may have lead-based paint. In that case, hire a pro who's certified in lead removal by the Environmental Protection Agency.

The wallpaper must go. It has to be stripped before you can paint or the surface won't be smooth.

Details, details. Decorative crown molding and chair railings are reasons to steer clear, especially when you want them to be a different color than the walls.

Heave-ho. Moving heavy furniture to another room isn't easy. And if you have a piano, consider hiring a piano mover to prevent any damage as it's wheeled from one room to another. Or move it to the center of the room and cover it. **Beyond your reach.** After renting a special ladder or scaffolding to paint your two-story foyer or stairway, you might decide the job really isn't so DIY after all.

Ratings ➤ **Paint by Numbers** Our testing shows that various sheens (flat, satin, semigloss, etc.) perform similarly overall. So we test three from each paint line and combine the scores to make it easier for you to shop.



Recommended	Rank	Brand & Product	Price	Overall Score	Test Results					Resists			Features	
					Hiding	Staining	Gloss Change	Scrubbing	Surface Smoothness	Fading	Mildew	Sticking	Self-Priming	Claims Zero VOCs
✓	1	Behr Marquee (Home Depot)	\$43	86	↑	↑	↑	↑	↓	•	•	•	•	
\$	2	Behr Premium Plus Enamel (Home Depot)	\$28	83	↑	↑	↑	↑	↑	•	•	•	•	•
✓	3	Valspar Reserve (Lowe's)	\$44	81	↑	↑	↑	↑	↑		•	•	•	•
✓	4	Behr Premium Plus Ultra (Home Depot)	\$36	81	↑	↑	↑	↑	↑	•	•	•	•	
	5	Benjamin Moore Aura	\$54	78	↑	↑	↓	↑	↑	•	•	•	•	•
	6	Clark + Kensington Enamel (Ace)	\$32	77	↑	↑	↑	↑	↑	•	•	•	•	
	7	HGTV Home by Sherwin-Williams Infinity (Lowe's)	\$47	76	↑	↑	↑	↑	↓	•	•	•	•	
	8	Olympic One (Lowe's)	\$27	75	↑	↑	↑	↑	↓		•	•	•	
	9	Olympic Assure (Lowe's)	\$25	71	↑	↓	↑	↑	↑	•	•		•	•
	10	Glidden Diamond (Home Depot)	\$26	70	↑	↑	↑	↑	↑	•	•	•	•	•
	11	Valspar Signature (Lowe's)	\$34	69	↓	↑	↑	↑	↓	•	•	•	•	•
	12	Valspar Optimus (Ace)	\$47	68	↓	↑	↑	↑	↑	•	•	•	•	•
	13	Benjamin Moore Regal Select	\$54	67	↑	↓	↓	↑	↓	•	•		•	•
	14	Ace Royal Interiors	\$27	64	↑	↓	↓	↑	↑	•	•			
	15	Sherwin-Williams Emerald	\$65	64	↓	↑	↓	↑	↓		•	•	•	•
	16	Sherwin-Williams Duration Home	\$61	63	↓	↑	↓	↑	↓		•	•	•	
	17	Glidden High Endurance (Walmart)	\$23	62	↓	↓	↑	↑	↓	•	•	•		•
	18	HGTV Home by Sherwin-Williams Ovation	\$29	62	↓	↓	↑	↑	↓	•			•	
	19	Farrow & Ball Interior	\$105	62	↓	↑	↓	↑	↓	•	•	•		•
	20	HGTV Home by Sherwin-Williams Showcase	\$40	61	↓	↑	↑	↑	↓	•	•	•	•	
	21	Glidden Premium (Home Depot)	\$25	58	↓	↓	↑	↑	↓	•		•	•	•
	22	Color Place Interior (Walmart)	\$17	51	↓	↓	↓	↑	↓			•		

HOW WE TEST: The Overall Score is comprised of Hiding, Staining, Gloss Change, Scrubbing, Surface Smoothness, and resistance to Mildew, Sticking, and Fading. Self-Priming and Zero VOCs are according to

manufacturers' claims. Results are based on white and medium-tint bases. Hiding is a measure of how well a paint covers a contrasting color mainly with one coat. Staining is resistance to water- and oil-based stains.

Gloss Change is appearance after rough cleaning. Scrubbing is the ability to resist an abrasive cleaner. Surface Smoothness is the absence of brush and roller marks when paint is dry.

Resists Mildew is the ability to inhibit mildew growth. Resists Sticking is the ability to resist tackiness when dry. Resists Fading is resistance to loss of color from sun exposure. Price is approximate retail per gallon.



Solving Family Money Fights

Conversations with people you love about money concerns can get awkward and tense pretty fast. Here, experts share advice about how to navigate these flare-ups and still leave everyone on sound financial footing.

by **Tobie Stanger**

IN HER 15 YEARS as a financial planner who works with families, Carol Fabbri has seen it all, and it often isn't pretty. Couples locked in a struggle over spending. Siblings crossing swords over inheritances. Parents warring over whether to throw a financial lifeline to an adult child. When the subject is money and the people doing the talking are family members, "I've seen gentle souls morph into demons," says Fabbri, who is based in Denver. "People are rarely rational in these situations."

You may be a whiz at Quicken and a disciplined index investor, but that doesn't mean you can completely remove the raw human emotion from financial decisions: Money attitudes and habits run deep. We learn early in life to be spenders or savers, and formative experiences may lead us to associate money with powerful emotions such as love and the need to remain in control. So when there's a financial decision to be made by family members with conflicting money perspectives, worlds can collide.

How can relatives confront contentious money concerns without dynamiting family ties? Because personal finance is as much personal as it is finance, we asked experts from a range of disciplines—finance, law, psychology, and even preschool education—to address seven common family money scenarios. We've also added our own practical advice. Some of our experts prescribe a warm and fuzzy approach; others tout tough love. Choose the counsel that best fits your style and situation to maintain (or restore) the peace and set out on a secure financial course.

Roiling Real Estate Rivalry

You and your two siblings inherited the lake house where your family spent many cherished summers. But now, arranging who gets July Fourth weekend—and whether you, your banker sister, and your struggling artist brother should all pay the same amount for the new roof—makes you behave like nursery schoolers.

A NURSERY SCHOOL TEACHER'S TAKE
Having an impartial mediator can ensure that everyone feels heard and respected, says Jennifer Dawber, director of the Days of Wonder Child Care Program in Dobbs Ferry, N.Y. That's especially true when one sibling dominates or another hangs back. "There has to be someone who's

authoritative and who understands everyone's situation," Dawber says. "Just as in nursery school, the person who doesn't speak up still needs to be heard."

Like the teachers Dawber supervises, a mediator can set the terms of the conversation and keep it on track. Hiring a professional with no ties to the family might ensure that negotiations seem fair. That said, the resolution doesn't have to be equal to be fair, Dawber notes. One sibling could, for instance, cover this year's property tax in return for four weeks in August. Another could be the contact for all contractors and get dibs on Memorial Day weekends.

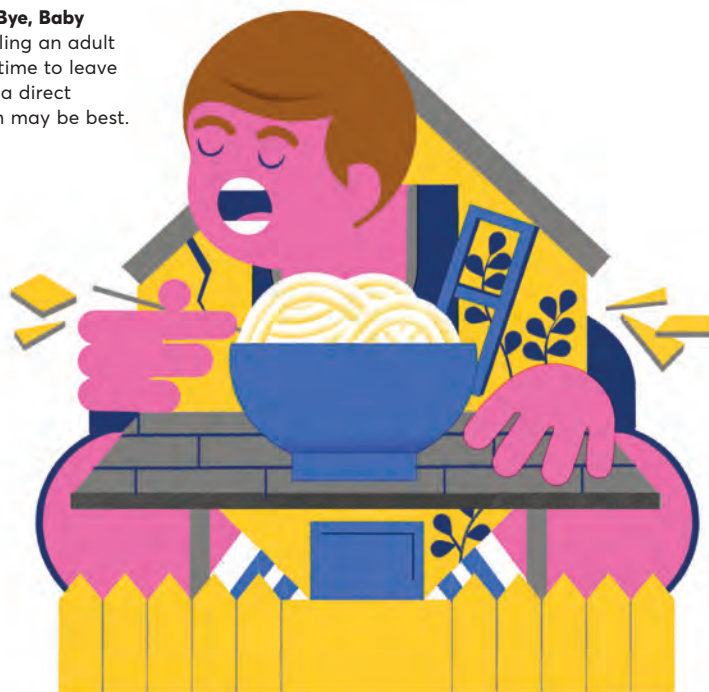
"The teacher of my 4-year-olds has a sign in her classroom," Dawber says. "It reads, 'Fair isn't everyone getting the same thing. Fair is everyone getting what they need.'"

A WEALTH MANAGER'S TAKE To make sharing a piece of real estate with your siblings work well, "everything needs to be equitable in terms of sacrifices and rewards," says Christopher White, a wealth manager based in Salem, N.H., and co-author of "Working with the Emotional Investor: Financial Psychology for Wealth Managers" (Praeger, 2016). "Start by talking with your siblings about who wants in and who wants out," he says, explaining that those who want out can be paid with a lump sum or over time, using a minimum, IRS-approved interest rate that allows participants to avoid the federal gift tax (see "Blended Family Fallout," on page 51).

Those who still want to use the lake house have to agree to an arrangement that all believe is fair, White continues. "For instance, if one sibling's financial investment in the house is greater, that person should have dibs on more or better vacation dates," he explains. "Perhaps the sibling who can't afford as much pays with their time or labor, such as by checking up on the house when it's

Say Bye-Bye, Baby

When telling an adult child it's time to leave the nest, a direct approach may be best.



not occupied or painting the place. If the financial contributions are already equal but the beef is about vacation dates, agree to rotate the schedule. One family gets Fourth of July 2017, the next family gets 2018, et cetera."

White suggests drawing up a written agreement, including a trial period, so if someone doesn't come through with his or her share of the maintenance or tax money, you can renegotiate.

CR SAYS *Ask a real estate attorney to create a co-tenancy agreement among the owners (also known as tenants in common, or joint tenants). It would lay out rules of the home's ownership and management, plus a buyout plan if one or more siblings want out. To find a family mediator, search the website directories of professional groups such as the Academy of Professional Family Mediators or the American Arbitration Association's site, Mediation.org. Hiring a property manager to collect the money and handle the payments can save money in the long run and preserve family relationships. A real estate agent can help you find one.*

Failure to Launch

It's time for your 24-year-old college grad to move out of your basement. But after landing a few short-term jobs, he hasn't worked for months and seems in no rush to find gainful employment. And the fact that he's grazing on your food, monopolizing the TV with video games, and trimming his beard in your powder-room sink is taxing your nerves, and your spouse's.

A PSYCHOTHERAPIST'S TAKE

Try not to let your frustration get the better of you, says Eileen Gallo, Ph.D., a psychotherapist based in Santa Monica, Calif., who focuses on financial concerns facing young adults. "Instead of telling your son he needs to get his s#!t together, focus on helping him explore what he wants to do," Gallo suggests, adding that it's best to use encouraging words that will foster his confidence. "You want to encourage autonomy, not paralysis," she says. "It's natural to struggle through the stage between

adolescence and young adulthood. So use the words ‘normal’ and ‘natural’ to describe the difficulty he’s having. Tell him, ‘I want to help.’”

If the child is resistant to the conversation, “You have a bigger problem than just getting him to grow up,” Gallo says. In that case, you can suggest family or individual therapy. She also recommends that parents offer to foot the bill for vocational testing. If he’s willing to go to graduate school or pursue specialty training, help with tuition if you’re in a position to do so. After he’s independent, consider helping him pay for health insurance until he’s firmly on his financial feet.

A FINANCIAL PLANNER’S TAKE

“If there’s a compelling medical issue that keeps him home, that’s one thing,” says Robert Karn, a certified financial planner, former tax attorney, and principal of Karn Couzens & Associates, wealth managers in Farmington, Conn. “But short of that, you’re not helping him by enabling him to shirk responsibilities.”

Karn suggests that you mince no words and that you propose a timeline outlining when your child should take the next step toward independence. “Lay out what you’re effectively paying for him to live there for free: rent, food, cable, phone, insurance. You can say, ‘You have 30 to 90 days. We’ll help you look for an apartment and write a résumé. If you don’t leave, you’re paying for your share of expenses.’” In Karn’s experience, young people approached this way generally come to their senses and leave.

“The challenge will be, are you emotionally willing to enforce your ultimatum?” Karn asks. For this approach to work, “both parents have to be on the same page.”

CR SAYS *When your child is working toward a financial goal—say, paying off college loans or saving for an apartment deposit—allowing him to live at home can be a smart financial move.*

But when he seems perpetually stuck in neutral, you might naturally worry whether he’ll ever get off the family dole. A vocational testing service such as Highlands (highlandscs.com), publisher of the Highlands Ability Battery, might help give your child direction. The National Career Development Association (ncda.org) offers an online referral program to trained career counselors (search using the “Need Career Help?” box on the home page).

An interim step toward financial independence is to charge your child rent. Increasing the amount each month until it approaches market rates could help coax your child out the door sooner. You can either keep the rent or add it to a savings account on his behalf.

For Richer, for Poorer, for Real?

You’ve just married your same-sex partner after years of living together. You’ve always had separate accounts. Now, how do you frame the discussion about how—or whether—to commingle assets?

A MARRIAGE AND FAMILY THERAPIST’S TAKE

“Some newlyweds slide into a comfortable money relationship easily,” says Diane Kubrin, director of mental health services at the Los Angeles LGBT Center. “But for other couples, merging accounts brings up issues of trust. They withhold sharing money as a fear of commitment, even after they’re married.” That fear of vulnerability often arises from personal money history; talking about how your parents handled money and your financial situations growing up can clarify your positions and help you move forward, she explains.

“Then the conversation can be, ‘There are so many different ways for us to merge our money or keep it separate, let’s figure out what all the scenarios look like,’” Kubrin says.

AN ATTORNEY’S TAKE Bringing up the

many financial benefits that married same-sex couples now enjoy could lead to a talk about how to apportion money tasks, says John Skarbnik, a tax professor and attorney with McCusker, Anselmi, Rosen & Carvelli in Florham Park, N.J. For instance, your spouse might know that married couples who file their income taxes jointly usually save money over filing separately. But he may not realize that you can now give twice as much money to relatives—\$28,000 per year, or \$14,000 maximum per spouse—without triggering the gift tax.

Still, look honestly at each spouse’s strengths and weaknesses, Skarbnik says. “If you’re married to someone who can’t handle a checking account, you’ll want your own account so your checks don’t start bouncing,” he says. **CR SAYS** *Even if you decide to keep certain accounts separate, a web-based money-management service—such as Mint.com or YouNeedaBudget.com—will allow you both to view all shared accounts in one place, which can make budgeting, planning, and saving easier.*

A Dream With a Big Price Tag

Your spouse is certain that his business idea will be The Next Big Thing, and he wants to take out \$60,000 in home equity to get it off the ground. How do you protect your family finances while showing that you support him in spirit?

A PROFESSIONAL MEDIATOR’S TAKE

“I would be reluctant to put home equity toward that goal,” says Jennifer Safian, a family and divorce mediator based in New York City. If the business fails and you can’t repay the loan, you’ve lost equity that could have been used for other purposes, including retirement savings, she notes. “Instead, I would talk to my spouse about other ways to get a loan that would not diminish

equity in the house,” she says, adding that helping your spouse find alternate financing is a way to demonstrate your support.

A DEBT EXPERT’S TAKE “Tell him, ‘Before you do this, let’s reach out to some experts in the field you’re entering,’” says Jason Thomas, founder of Future Family Finance, a financial coaching company in Huntsville, Ala. “Encourage him to talk to third parties about the risks and start-up costs.” Enlisting knowledgeable, objective people to weigh in not only will help inform your decision but also shows you have his best interests at heart, Thomas adds.

CR SAYS *Get free business start-up advice from a volunteer mentor at SCORE (score.org), a national not-for-profit organization that matches working and retired business professionals with small-business people in the same field. A volunteer can help prepare a business plan and explore funding options, among other things. Also, check out the Small Business Administration’s loans and grants page (sba.gov/loans-grants) for options beyond home-equity financing.*

Aging Parent, Fragile Finances

Your elderly mom lives alone and has been doing fine for years. But the last time you visited, you saw that she’d written a large check to a doctor—a bill you know insurance already paid. You suspect she might be losing her ability to handle her finances, and you fear she could be vulnerable to scams. But she has always been proud of her money-management skills and is unlikely to easily hand her purse strings to you.

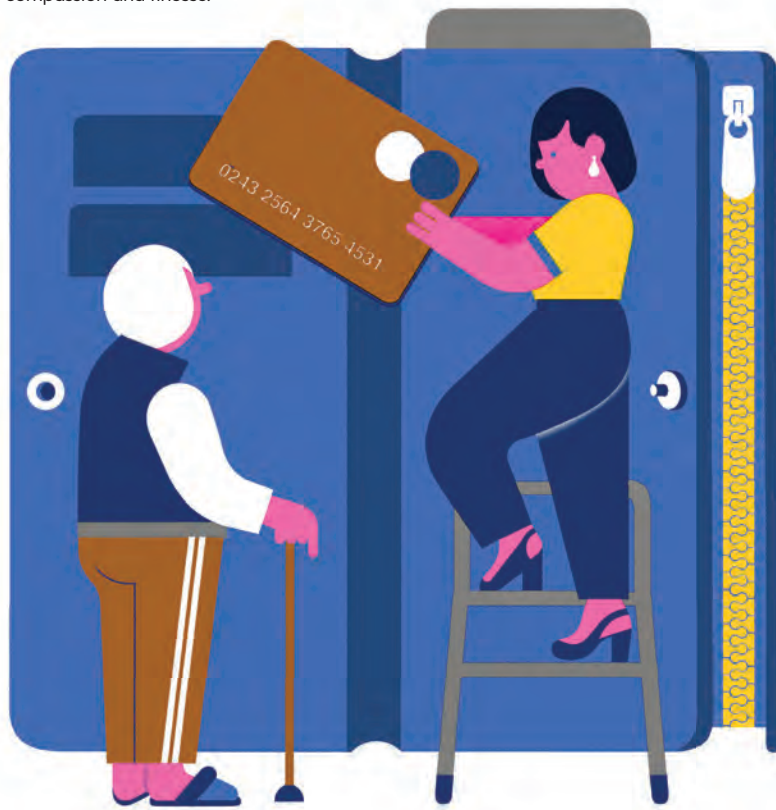
A GERIATRIC CARE MANAGER’S TAKE The best approach is a gradual one that doesn’t make your mother

feel criticized or disempowered, says Patricia Maisano, founder and chief innovation officer of Ikor International, a care-management company for seniors and those living with disabilities, based in Kennett Square, Pa. “Start by saying, ‘I know you’re doing the best you can with your bills, but everyone needs somebody to check on things once in a while,’” Maisano says. She suggests that you correct the doctor’s bill error and offer to help your mom with bill management. “You can say something like, ‘Bills can be difficult. I get overwhelmed. How would you feel if we sat down and looked over them together?’” You may progress to taking over the task eventually. “The secret to a successful transition,” Maisano adds, “is to make your mom want your help, not force it on her.”

AN ELDER-LAW ATTORNEY’S TAKE “Giving up an independent activity—driving, money management, food shopping—is a painful transition for any older person to make,” says Bernard Krooks, an estate and elder-law attorney based in New York. “One way to get your mother’s cooperation is to say, ‘I’m starting to talk to my kids about what to do if I’m incapacitated. I think we should talk about that, too.’” In Krooks’ view, your goal should be to get your mom to let you see copies of her bank statements without making you a co-owner of the account. “That way she’s still in control, but you’re overseeing,” Krooks notes. Tell her you want to work together with her. He adds: “To the extent she views you as treating her as a child, there will be resistance.” Ideally, she would also grant you durable power of attorney, so you

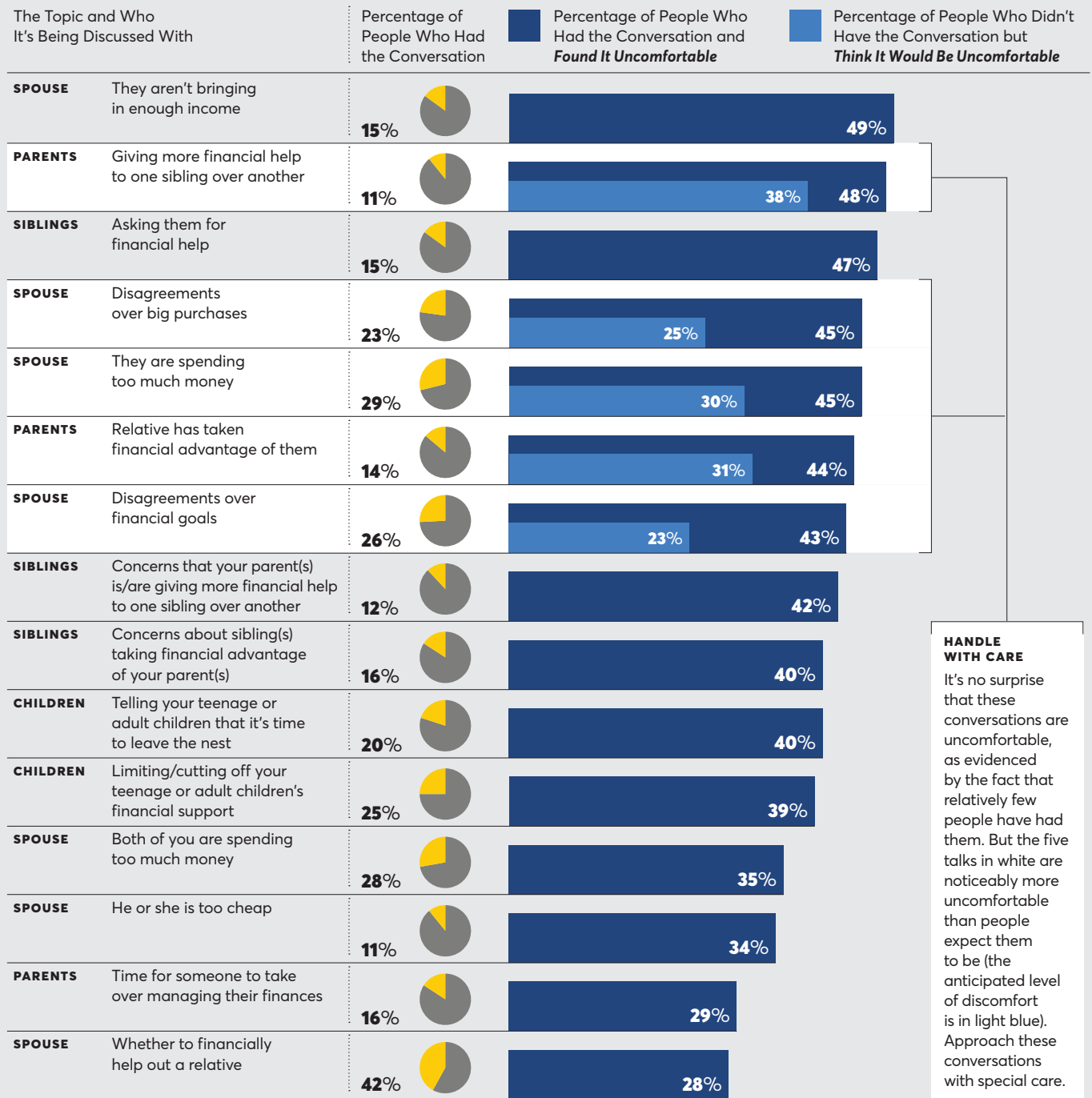
Role Reversal

Assuming control of a parent’s finances requires compassion and finesse.



The 15 Toughest Money Talks

We surveyed more than 2,000 people about common money conversations with family members. Here are the 15 talks that are the most uncomfortable.



HOW WE SURVEY: Results are based on responses to a 34-question nationwide survey by the Consumer

Reports National Research Center of 2,861 American adults ages 35 to 70 in December 2016. The dark blue

bars represent the actual discomfort level of respondents who had the conversation; light blue represents the

anticipated discomfort level of a conversation by respondents who have not had the conversation.

can make financial decisions on her behalf in the event that she becomes unable to make her own.

CR SAYS *If you can't or don't want to handle your mother's finances, engage someone reliable who has trained in managing seniors' and disabled individuals' routine money tasks. The American Association of Daily Money Managers (aadmm.com) has a volunteer page that links consumers to individuals who will do the job free or for low fees in many states. You also can search for a paid professional daily money manager who has agreed to standards of practice and a code of ethics. Their hourly rates can range from \$75 to \$150 depending on the service; some charge a monthly retainer for, say, acting as power of attorney. Certified DMMs, also listed on the site, go a step further, having passed an exam and undergone a background check. They must have at least 1,500 hours of daily money-management experience.*

Loving the Debtor, Not the Debt

Your fiancée is your perfect match, but she has \$100,000 in student loans. How do you discuss your concern about how it might keep you from achieving major goals, such as buying a home?

A RELATIONSHIP EXPERT'S TAKE Beginning a life together in debt puts an immediate strain on your relationship and can fuel resentment for years, says April Masini, founder of AskApril.com, a relationship and advice site that includes a dating forum. It would be a mistake, she believes, to not address your concerns head on—before you get married. “Say, ‘Something’s been bothering me about your debt. Can we set up a time to talk about it?’” she suggests. “Then start a dialogue about how you’re going to share income as well as debt

Till Debt Do Us Part?

Sweeping a new spouse's debt under the rug can fuel resentment later.



in marriage, and create a savings plan and financial-goal bucket list for your life together.”

Regardless of whether your state is a common-law or community-property state, debt incurred by one party before the marriage is not owned or owed by the spouse. Still, Masini says it's key to agree on how to handle it. **A MILLENNIAL MONEY EXPERT'S TAKE** Beth Kobliner, author of “Get a Financial Life: Personal Finance in Your Twenties and Thirties” (Touchstone, 2017), concurs that the problem can't be swept under the rug. But she advises to look on the bright side and execute an action plan. “Tell your partner, ‘It could be worse; at least it's not a hundred grand in high-interest credit-card debt,’” she says. “Then get on the phone together and call the student-loan servicers to find out about available discounts. For example, could your fiancée knock a fraction of a percentage point off the interest rate by signing up for automatic payment? Is she eligible for a loan

forgiveness program, such as one that's available to teachers? If she has lower-rate federal loans, can she stretch out the repayment period to lower the payments, leaving extra cash to pay down any private student-loan debt with a higher interest rate?”

You should also consider how to pay off a chunk of the debt sooner, Kobliner says: “Maybe a low-key affair at city hall followed by a backyard barbeque makes more sense than a blockbuster wedding in the Keys.” **CR SAYS** *Check out repayment plans for federal loans at studentaid.gov/repayment-estimator. Consider consolidating multiple federal loans into one loan with a longer repayment period and a single, smaller monthly payment. You can learn how by going to studentloans.gov/mydirectloan/index.action and clicking “Consolidate Your Loans” at the bottom of the page. You might be able to consolidate private loans through a bank, a credit union, or an online lender such as CommonBond or SoFi. You can also get more information on private loans*

at the Private Student Loans Guru website. Avoid consolidating federal and private loans together; this gambit may turn low-fixed-rate federal loans into variable ones and makes the borrower ineligible for federal repayment plans.

For a fee—usually \$50 to \$200—a debt counselor located through the National Foundation for Credit Counseling (nfcc.org) can help devise a budget and identify ways to save, so you can free up funds for loan prepayment. Those struggling to repay their loans can also go to studentloanborrowerassistance.org.

Blended-Family Fallout

You paid for your son's college, and now he's asking for help financing law school. You want to help, but his stepmother, your wife—who paid her own way through grad school—is opposed. How can you come to an agreement?

A FINANCIAL THERAPIST'S TAKE

"Explore with your wife her underlying values concerning funding education," says Megan Ford, a financial therapist and coordinator of the ASPIRE Clinic, a counseling center at the University of Georgia in Athens. "Does she believe that paying your own way fosters self-reliance? Also talk about your own values. Could it be that you've planned to help your son all along, but your partner fears it may take away from your future together?"

Crunch the numbers together, Ford advises. As a compromise, perhaps you fund only the first year of school.

A BLENDED-FAMILY EDUCATOR'S TAKE

Even if a prenup says the money is yours to spend, the decision has to be both of yours, says Ron Deal, director of FamilyLife Blended, a resource for stepfamilies, and author of "The Smart Stepfamily" (Bethany House, 2014). "When biological parents resort to unilateral decision-making, they undercut the bonding between their spouse and the child," Deal notes. "It

makes family harmony more difficult."

Depending on the blended-family relationship, you might want to deliver bad news alone, Deal advises. "Start the conversation with, 'Because we love you and believe in your ability to get this done on your own, we're choosing not to contribute. We want to support you, but not by writing a check.' If he says, 'You would help me if she wasn't in the picture,' you say, 'I understand your disappointment, and I'm sorry. But my wife is part of the picture, and I'm in agreement with the decision. This isn't on her, it's on us.'"

Dollars & Sense

6 strategies to help take the sting out of a thorny money conversation with a family member

Meet in a neutral place.

People tend to keep their voices down and control their anger more when they're not at home, says state district court Judge John Roach in Collin County, Texas, co-author, with his wife, Laura, of "Divorce in Peace: Alternatives to War From a Judge and Lawyer" (Wheatmark, 2016). A casual restaurant is a good venue, Roach says. Or talk while walking in a natural setting such as a park, says Holly Gillian Kindel, a certified financial planner with Mosaic Financial Partners in San Francisco. "Studies find people are better able to process information and come up with creative ideas while engaged in physical activity in nature," she explains.

Focus on one topic.

"Too many people try to tackle too much at once," Roach notes. If you and your siblings have to deal with a parent's daily care, for instance, focus first on what it will cost and how you'll pay. Later, discuss who will oversee the care.

Hire a pro. If the issue is a particularly contentious one, hiring a neutral person, such as a financial planner or CPA, can help keep conversations on track. The facilitator can also take responsibility for assigning tasks or requiring parties to share documents. "Having a pro involved takes the pressure off of you," says Robert Karn, a wealth manager based in Farmington, Conn. "Let him be the bad guy."

Listen actively.

"Mirroring what someone said in your own words allows them to feel heard and to say whether you're understanding each other," says Jennifer Safian, a divorce mediator based in New York City.

Be respectful. "When someone's talking, we tend to anticipate what they're about to say and interrupt them," Roach says. "Conversations break down at that moment." Fight the temptation and wait your turn.

Agree to disagree.

No amount of talking can guarantee that you'll get another person to see things your way, Roach says. When you reach an impasse, you sometimes have to be prepared to let it go and move on.

CR SAYS Encourage your son to find federal loans through studentaid.ed.gov. If you lend him money, outline the terms in writing. If the loan exceeds \$14,000, it should include interest so that you can avoid the federal gift tax. Use the IRS's current Applicable Federal Rate; find it through National Family Mortgage, which helps create intrafamily loans.



LEARN

For more awkward financial conversations with family members and advice on the best ways to approach them, go to CR.org/moneytalks0517.



Taking Patients for a Ride

For-profit air-ambulance companies too often pick up people who don't need air transport—and leave families with huge bills that insurance won't pay.

by **Donna Rosato**



Sky-High Rise
About 400,000
Americans are
transported by air
ambulance each
year, up from
270,000 in 2008.

JENNIE STOUT, a nurse in Ocala, Fla., was finishing an afternoon shift when she got a panicked call from home. Her 13-year-old daughter, Ashlyn, had tripped and fallen into smothered coals left over from burning leaves in their backyard, scorching her hands, knees, and shins.

"I could hear Ashlyn's screams in the background," Jennie remembers. She called 911 and rushed home.

Ambulance paramedics on the scene when Jennie arrived said that Ashlyn should be sent by helicopter to a burn center in Gainesville for fast treatment.

Jennie was surprised: The hospital was only about 40 miles away and the burns didn't seem extensive to her. But in that situation, she recalled, "I'm a mom first," so she didn't question the decision.

Ashlyn left the hospital after four days and was back at school within two weeks. The Stouts' insurer, Blue Cross and Blue Shield, covered her hospital bills and outpatient therapy.

But two months later, the family got a notice from Med-Trans, the air-ambulance company, telling them that the ride was \$24,000.

It turns out that medical-emergency helicopters are often "out of network" and not fully covered by insurance. Blue Cross and Blue Shield paid only \$5,700, leaving the family with the balance: \$18,300.

Today, four years after the accident, Ashlyn has only a few minor scars. But the unpaid balance has a left a lasting mark on the family. They hired a lawyer to challenge the bill, which has now gone to a collection agency.

And the debt has hurt Jennie's credit score, making it more difficult to get a loan for needed repairs to the aging roof on the family's house.

"I have never not paid a bill in my life," Jennie says. "I am not paying a dime because on principle the whole thing is just wrong."



Safe and Sound

Ashlyn Stout a few hours after being transported by an air ambulance.

The Worst Kind of Surprise

Getting hit with a medical bill you thought insurance would pay is all too common (see box below).

And air-ambulance bills can be especially difficult. Consumer Reports—which collects patient stories about surprise medical bills—has seen a spike in complaints about air ambulances in the last year, including the Stouts'.

Consumers seem to have plenty to complain about. For one thing, the bills are expensive, averaging more than \$30,000, research shows. And consumers have little recourse. Deregulation of the airline industry in the late 1970s left states unable to regulate air-ambulance services or to protect consumers from predatory practices.

The most frustrating part, according to industry experts we spoke with, is that many people taken by air ambulance could have been safely transported by ground ambulance.

Doctors Most Likely to Stick You With a Big Bill That Insurance Won't Pay

AN AIR-AMBULANCE ride isn't the only instance when you could be left with a big medical bill. It can happen anytime you're treated by a doctor out of your insurer's network.

The physicians most likely to be out of network are those you have the least control in choosing: ER doctors, anesthesiologists, radiologists, neurosurgeons,

and pathologists, says Gerard Anderson, Ph.D., of the Johns Hopkins Bloomberg School of Public Health in Baltimore.

His study of out-of-network medical bills was published in the January 2017 issue of the *Journal of the American Medical Association*. He looked at records from more than 400,000 physicians, comparing how much different specialties

charged out-of-network patients vs. what Medicare reimbursed them. That difference is what patients often get stuck with.

Anesthesiologists charge, on average, six times that amount. ER doctors, neurosurgeons, pathologists, and radiologists charge four times more.

The problem is likely to grow worse, says Betsy Imholz,

Consumer Reports' expert on surprise medical bills. Insurers are increasingly offering plans that have no out-of-network coverage. Worse, healthcare providers are contracting with fewer insurers or choosing not to take insurance at all.

For advice on preventing this problem, see "How to Beat a Surprise Medical Bill," on page 56.

For example, although Ashlyn's burns were painful, they covered just 12 percent of her body. Patients less than 200 miles from a burn center with burns covering less than 30 percent of their body can usually be safely transported by ground, says Gary A. Vercruysse, M.D., a trauma specialist at the University of Arizona Medical Center who has written about the overuse of air ambulances.

Being taken by air ambulance may actually increase the risk of something else going wrong. They crash more often than other air taxis, research shows. That's partly because of poor decisions pilots may sometimes make when they feel pressure to transport patients quickly, says Ira Blumen, M.D., medical director of the University of Chicago Aero-medical Network, who researches air-ambulance accidents.

But Consumer Reports' analysis of data from the National Transportation Safety Board on air-ambulance accidents between 2010 and 2016 suggests another reason. We found safety differences between for-profit operators and nonprofits.

Patients Caught in the Middle

More than 1,000 air ambulances now operate in the U.S., twice as many as in 2000, according to industry data.

For-profit companies are an important factor in driving that expansion as they take over nonprofit programs run by hospitals and municipalities and buy up smaller operators. Today, four private air-ambulance companies—including Air Medical Group Holdings, which owns Med-Trans, the company that transported Ashlyn—account for half of the industry's revenue.

Bills for those services are growing. The average charge from Air Methods, the largest operator, rose from about \$13,000 in 2007 to \$50,200 in 2016, according to Research 360, an independent firm that tracks the industry. The average bill for the industry overall was \$32,895 in 2014, the most recent year for which there is data.

The real cost of providing air transport averages about \$7,000 according to Jon Hanlon, founder of Research 360. And analysis by New Mexico's Office of Superintendent



When It's Critical to Call an Ambulance

WHEN THERE'S an emergency, the last thing you're probably thinking about is whether insurance will cover an ambulance. Nor should you. An ambulance can get you to an ER faster, and the staff onboard can provide lifesaving care en route.

But you could get hit with a big bill if your insurer says the ride wasn't medically necessary or if you're picked up by an ambulance not in your insurer's network. So you need to know when to call 911.

A dispatcher will send a ground ambulance plus first responders, who decide on the scene if you need air transport. Insurers may cover that if it gets you to the hospital faster. But that's not always so. Leaving in the ambulance gives you a head start on a helicopter, which first must be summoned and then could be delayed while it looks for where to land.

Even if you're taken by ground ambulance, you may have to foot some of the cost. Dispatchers usually send the closest available ambulance, which might not be on your list of providers. And your insurer could refuse to pay if it deems the ride unnecessary. An ambulance is clearly justified if you or someone you're with is unconscious, bleeding heavily, can't breathe, or can't be transported safely any other way. To be certain, check your insurer's "emergency services benefits."

If you don't think your situation is a real emergency, and you or someone you're with can drive safely, don't call an ambulance. And if you get stuck with a big bill, see "How to Beat a Surprise Medical Bill," on page 56.

of Insurance put the cost at an average of about \$10,000.

Rick Sherlock, president and CEO of the Association of Air Medical Services, a trade group, says that many air-ambulance patients are on Medicare or Medicaid, and that those programs pay \$200 to \$6,000 per transport. So, Sherlock says, air-ambulance operators must collect more from people with private insurance to make up the difference.

As a result, patients who are privately insured are often stuck in the middle, paying the price for a dysfunctional system they have little control over.

An Unnecessary Cost?

When someone is traumatically injured and far from a hospital, air transport can be essential. And for people in rural areas, air transport may be their only hope in the event of a heart attack or other emergency.

But advocates and medical experts say that people with injuries that aren't life-threatening are too often flown when driving would be just as effective and much cheaper. "I see a lot of people brought by helicopter with very minor injuries," Vercruysse says. His March 2015 study in the *Journal of Trauma and Acute Care*

Surgery concluded that almost one-third of air-ambulance rides weren't medically necessary.

In some cases, air ambulances are used even though it would be as fast—or faster—to go by ground. Ashlyn's father, for example, arrived at the hospital just as she was being wheeled into the ER, even though he drove a similar distance. The helicopter had been delayed as it looked for a safe place to land while Ashlyn waited in the ambulance.

Why the overuse? Many air transports occur when patients are transferred between hospitals, and some doctors, fearful of lawsuits due to a delay in care, resort to that option too often, Vercruysse says. Physicians and first responders need clearer guidelines on when an air ambulance is warranted, he says.

John Franchini, the chief regulator of insurance

Continued on page 57 ➤



How to Beat a Surprise Medical Bill

THERE ARE TWO ways to combat surprise medical bills, whether they come from an air ambulance, a ground ambulance, or a healthcare professional: Prevent them in the first place or fight them later. Here's our advice:

1. Prevent the Bills

Most of them are the result of being treated by someone outside your insurance company's network of providers. So you want to avoid those out-of-network providers whenever you can.

That's easier in nonemergencies, such as when planning a knee replacement or having a baby. In those cases, ask the person who handles billing in your doctor's office for a list of the anesthesiologist, radiologist, and anyone else who could conceivably be part of your care, including while you're in the hospital.

Then call your insurer to make sure that those people are in your network. (Don't rely on online directories; they can be out of date.) If anyone isn't, tell the physician that you only want in-network providers. It's harder to find them during an emergency, because you might not have the time.

Still, it's wise—before you need to go to an ER—to find out which nearby hospitals are in your network and use in-network ER physicians. Then, in an emergency, try to go to one of those if you can.

If you need an ambulance, you can ask to be taken to an in-network hospital, though the first-responder onboard will make the final decision. So reserve ERs for true emergencies, and if it's safe, go in a car.

2. Fight the Bills

If you're stuck with a surprise medical bill, call the provider and your insurer. Explain that you didn't realize the care, which was essential, would involve out-of-network providers.

Some physicians may accept the insurance payment and forgive the balance. Or the insurer and the non-network physician may agree to lower the bill, making it easier for you to afford.

If you're billed for emergency care or ambulance transport, also ask the first responders or ER doctors to provide documents confirming that you had no choice in how you were transported and that it was medically necessary.

If all else fails, complain to your state's health insurance agency, says Caitlin Donovan of the National Patient Advocate Foundation.

Those agencies can't always help—for example, states have little power over air ambulances—but lodging a complaint could strengthen your bargaining power.

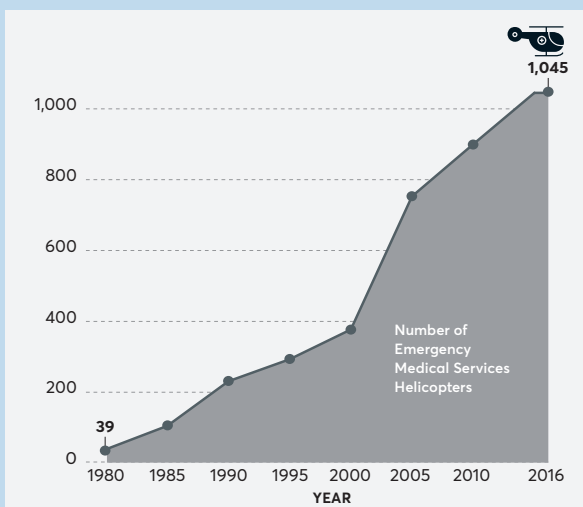
To contact your state's insurance department, use Consumer Reports' surprise medical bill tool, at [ConsumersUnion.org/insurance-complaint-tool](https://www.consumersunion.org/insurance-complaint-tool).

The Patient Advocate Foundation has counselors who can help. Contact them at patientadvocate.org or 800-532-5274.

The Rise of Air-Ambulance Transport

MORE AIR AMBULANCES

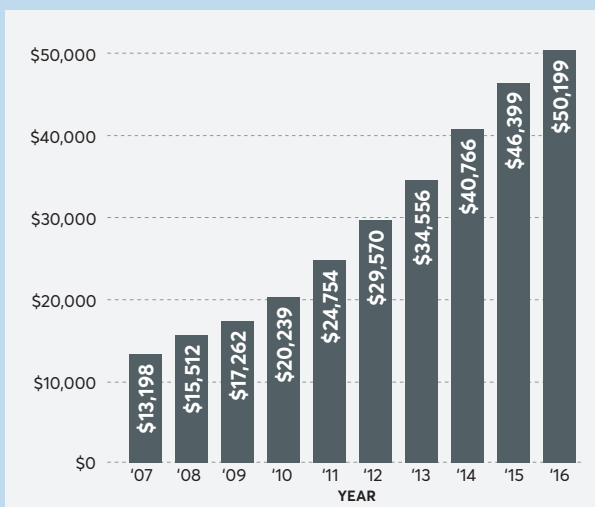
The number of air ambulances spiked after Medicare raised its reimbursement rate for air transport in 2002 and has continued to rise steadily since.



Note: Doesn't include fixed-wing aircraft, just helicopters.
Source: Atlas & Database of Air Medical Services.

BIGGER AIR-AMBULANCE BILLS

Average patient bills from Air Methods, the largest for-profit medical air-transport company, have gone up significantly, too.



Source: Analysis of Air Methods data by Research 360.

companies for New Mexico, says his office has seen an increase in consumer complaints about air ambulances, 12 of them from December 2015 to January 2017 alone. In six of those cases, insurance companies later determined the flights weren't medically necessary.

Billing consumers thousands of dollars for a service that they have no control over is wrong, Franchini says, especially if the service isn't needed.

High-Risk Flying

Then there's the issue of safety. The accident rate for medical helicopters has dropped in the past decade, according to Blumen's research. But they still crash at twice the rate of other air taxis, he says.

The National Transportation Safety Board recognizes the risks of these flights, citing, for example, the difficulty of flying at night, in unfamiliar terrain, or in bad weather.

And for-profit air-ambulance companies have a spottier safety record than nonprofit operators, according to a Consumer Reports analysis of recent NTSB data. We found that the four largest for-profit operators—Air Methods, PHI Air Medical, Air Medical Group Holdings, and Metro Aviation—accounted for 68 percent of industry accidents from 2010 to 2016 (37 out of 54 crashes), even though they account for 51 percent of the air-transport market.

Data from a 2014 study in the *Journal of Trauma and Acute Care Surgery* were even more lopsided. It found that of 139 crashes between 1998 and 2012, 118 involved for-profit operators. The authors said potentially preventable human errors related to the crashes are significantly higher among those operators. They attributed the increased risk to "deficiencies in training, reduced availability of equipment and resources, and questionable flight selection" among for-profit air-ambulance companies.

Sherlock says the study didn't take into account voluntary safety improvements, such as the installation of terrain awareness systems directed by the Federal Aviation Administration in 2014. Though all of the regulations won't be fully implemented till 2018, he says many companies have voluntarily adopted many of those changes.

Consumers and Legislators Push Back

Consumers in at least five states who are suing Air Methods are seeking to turn their cases into class-action lawsuits. Several states have taken steps to help consumers facing high air-ambulance bills. There's also bipartisan support in Congress to investigate the problem and to give states more power to regulate the industry. Consumer Reports supports these efforts (see the box at right).

There's movement on the local front, too. In January, Monroe County in the Florida Keys, where the nearest trauma hospital is about 120 miles away, voted to expand

its county-operated air-ambulance service after residents complained about bills from LifeNet, a private air-ambulance company owned by Air Methods.

Air Methods said in a statement that it bills only for what insurance won't cover as a last resort and that it works with patients to determine what they can reasonably pay.

Smart Steps to Battle Unwanted Bills

If you get stuck with a high air-ambulance bill, industry experts and consumer advocates say there are things you can do. Ask your insurance company to advocate on your behalf, or challenge the bill directly with the air-ambulance provider. To bolster your odds, file a formal complaint with the appropriate agency in your state government (see "How to Beat a Surprise Medical Bill," on the facing page). Some air operators also offer charity-care programs.

To avoid these bills, you might want to consider a membership program offered by some air-ambulance operators, particularly if you live far from a hospital. The programs, which cost as little as \$65 per year, are meant to cover costs that your insurance doesn't pay. But that works only if the ambulance company you sign up with is the one that arrives at your emergency, something you may have little control over.

The Stouts have exhausted their appeals and are now contemplating filing a class-action lawsuit. And Jennie says she wishes she had questioned the need for an air ambulance the day her daughter was hurt. Her advice to others in a similar situation? "If it doesn't seem right, ask questions."



PROTECTING CONSUMERS

EFFORTS TO rein in excessive air-ambulance bills have rare bipartisan support in Congress.

Reps. Bill Shuster (R-Pa.) and Peter A. DeFazio (D-Ore.) recently asked the Government Accountability Office to investigate pricing and competition in the industry.

And Sens. Jon Tester (D-Mont.) and John Hoeven (R-N.D.) have introduced bills to give states more power to regulate how air ambulances operate and charge customers.

Consumer Reports supports those and other

efforts to protect consumers from surprise medical bills.

"All Americans deserve access to affordable healthcare, including emergency medical transport," says Betsy Imholz, who oversees Consumer Reports' Surprise Medical Bills campaign.

Read more about our work on air ambulances at [ConsumersUnion.org/airambulances](https://www.consumersunion.org/airambulances). And to learn more about our efforts to combat all surprise medical bills, and to share your story about one, go to [ConsumersUnion.org/surprise-medical-bills](https://www.consumersunion.org/surprise-medical-bills).

Road Test

We conduct more than 50 tests on each vehicle at our 327-acre Auto Test Center. For complete road tests, go to CR.org/cars.



High-End and Powerful

The **Genesis G90** pulls into the fast lane during its debut, putting the whole luxury class on notice.

HYUNDAI'S PHILOSOPHY of giving customers a generous suite of features for their money applies to its new Genesis brand. The G90 undercuts most ultra-luxury flagships by a good \$20,000 but gives up nothing to them.

The 365-hp V6 turbo thrusts the car forward effortlessly. There's no need to spend more for the optional 420-hp, 5.0-liter V8. The eight-speed automatic shifts supremely smoothly, but our all-wheel-drive G90 was thirsty and got just 18 mpg overall.

Even though the G90 is

a large and heavy car, it's responsive in the corners but not sporty. The cabin is hushed, the ride supple yet steady. Only very sharp ruts or ridges manage to creep in, but it's rare.

Plush and sumptuous, the G90 checks the required luxury boxes with supple leather, wood, and chrome trim, a suede headliner, and power rear sunshades. The front seats accommodate a variety of body types with soft yet supportive cushions, aided by standard 22-way power adjustment for the driver. The rear seat is like a limo, with plenty of legroom, and you can even get reclining seatbacks on the top trim level.

But the monostable gear selector is unintuitive, and Reverse doesn't always engage on the first try. As a fail-safe, it will return to Park if you open a door with the car in Drive. Other G90 controls are relatively user-friendly. We like that forward-collision warning and automatic emergency braking are standard.

ULTRA-LUXURY SEDANS

Genesis G90

OVERALL SCORE **81**

ROAD-TEST SCORE 89

HIGHS

Powertrain, ride, interior room, quietness

LOWS

Unintuitive gear selector, low dash vents, brand prestige

POWERTRAIN

365-hp, 3.3-liter turbo V6 engine; 8-speed automatic transmission; all-wheel drive

FUEL

18 mpg

PRICE AS TESTED

\$71,550



A Cultivated Cruiser

The only thing old-fashioned about the all-new **Lincoln Continental** is its name.

THE CONTINENTAL has a 78-year history. While that may make it a household name, it may also lead potential buyers to dismiss it as old news. But that would be a shame, because this is a thoroughly modern sedan.

The wide-fendered Lincoln has genuine presence with liberal use of chrome, including door-handle loops that jut out of the windowsill trim. These are appealing, polished touches.

Based on the bones of the accomplished Ford Fusion, the Lincoln is disciplined on twisty roads yet a relaxed highway cruiser. The 2.7-liter turbo

V6 delivers effortless acceleration and 20 mpg overall on regular gas.

When it comes to luxury, the Continental impresses. The suspension easily soaks up bumps and the cabin is whisper-quiet.

We're not thrilled with the awkward electric door buttons on the inside, which provide no advantage over conventional levers. The push-button gear selector can also be confused with radio preset buttons. Stylish front seats look posh but we found them narrow, with a bottom cushion that's too short. We recommend trying out the optional (and more expensive) seats with four-way lumbar adjustment.

Safety features such as forward-collision warning and automatic emergency braking come only as part of an optional technology package starting on the Select trimline. They ought to come standard on Lincoln's flagship.

LUXURY MIDSIZED SEDANS

Lincoln Continental

OVERALL SCORE **75**

ROAD-TEST SCORE 83

HIGHS

Ride, quietness, acceleration, braking, roomy interior

LOWS

Confusing gear selector, front-seat comfort, controls

POWERTRAIN

335-hp, 2.7-liter turbo V6 engine; 6-speed automatic transmission; all-wheel drive

FUEL

20 mpg

PRICE AS TESTED

\$55,590



Building on Tradition

The well-mannered **Buick LaCrosse** delivers comfort, space, and a quality ride, all with a stylish new silhouette.

THE LACROSSE HAS all the hallmarks of a large American sedan: it's quiet, roomy, and mostly relaxing. The 2017 redesign makes it lighter, wider, and lower than the model it replaces, potentially broadening its appeal while satisfying loyalists.

The weight savings combined with a new eight-speed automatic help improve fuel economy to a respectable 24 mpg overall. Opting for all-wheel drive adds winter traction but may cost you 1 or 2 mpg.

The cabin is library-quiet, and you won't feel many

pavement flaws. Agility isn't this big Buick's forte, but it remains secure when driven hard. With ample power on tap, freeway merging is stress-free.

The redesign brought a sleeker body and a lower, more stylish roofline, which could make getting in and out a challenge for some. The interior is well-finished, with a spacious rear seat. But thick roof pillars, small windows, and a high shelf behind the rear seats compromise visibility. On the upside, you'll find the control layout uncluttered and the infotainment system intuitive.

On the other hand, the electronic gear selector can easily be left in Neutral when trying to engage Reverse, a potentially dangerous situation. (See our free content on confusing and dangerous shifters at CR.org/carsafety.)

Buick is also stingy with advanced safety features, with forward-collision warning available only on the top trim.

LUXURY MIDSIZED SEDANS

Buick LaCrosse

OVERALL SCORE **78**

ROAD-TEST SCORE 85

HIGHS

Ride, quietness, acceleration, braking, roomy interior, intuitive infotainment system

LOWS

Confusing gear selector, visibility, agility

POWERTRAIN

310-hp 3.6-liter V6 engine; 8-speed automatic transmission; front-wheel drive

FUEL

24 mpg

PRICE AS TESTED

\$43,225



Voyage Back in Time

The redesigned **Nissan Armada** feels like a land yacht from another era.

THE SECOND-GENERATION Armada is a muscular, lumbering, fuel-chugging SUV. And despite its lavish appointments and comfortable, quiet interior, there's no masking its old-school traits.

The leather and wood-coated cabin in our Platinum felt more like something from Nissan's upscale Infiniti division. No surprise, because the Armada is based on the QX80. The layout looks fancy, but it's a long reach to some of the controls strewn about the button-filled center stack. Connectivity options are limited, with only one USB

port for the entire vehicle. Wide front seats provide good long-trip comfort, but the surfboard flatness and slick leather don't give you much traction. The optional second-row captain's chairs recline but can't move fore and aft. The cramped third row is a kids-only zone.

The sweet-sounding V8 moves the hulking Armada with authority, and the seven-speed automatic delivers smooth and responsive shifts. Alas, a paltry 14 mpg overall is the downside. Tow capacity is rated at a beefy 8,500 pounds. Slow steering and a top-heavy sensation make the Armada feel klutzy through corners, though it's ultimately secure. The Nissan soaks up harsh hits with ease, but its soft suspension can cause occupants to sway side to side like they're on a vessel in a rough sea.

Forward-collision warning and automatic emergency braking are standard on the Platinum or as part of the Technology option package.

LARGE SUVs

Nissan Armada

OVERALL SCORE **59**

ROAD-TEST SCORE 69

HIGHS

Smooth and powerful drivetrain, quietness, towing capacity, fit and finish

LOWS

Agility, unsettled ride, fuel economy

POWERTRAIN

390-hp, 5.6-liter V8 engine; 7-speed automatic transmission; four-wheel drive

FUEL

14 mpg

PRICE AS TESTED

\$63,020

	Make & Model	Price	Overall Score	Survey Results		Safety	Road-Test Results											
Recommended		As Tested		Predicted Reliability	Owner Satisfaction	Front 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	Luggage +Duffels/ Suitcases +Duffels/ Cargo Volume, Cu. Ft.	
	LUXURY MIDSIZED CARS																	
✓	Infiniti Q70 (V6)	\$53,825	88	↗	↗	Opt.	90	21	5.8	128	54.5	↗	↗	↗	↗ / ↗	↗	3+2	
✓	Lexus GS 350	\$58,858	85	↗	↗	Std. / ↗	83	21	6.2	137	53.5	↗	↗	↗	↗ / ↗	⚠	3+1	
✓	Audi A6 3.0 Premium Plus Quattro	\$56,295	84	↗	↗	Opt.	90	22	5.7	132	52.5	↗	↗	↗	↗ / ↗	⚠	3+1	
✓	Genesis G80 3.8 (AWD)	\$52,450	80	⚠	↗	Std. / ↗	89	20	7.2	129	53.0	↗	↗	↗	↗ / ↗	↗	3+1	
✓	Buick LaCrosse Essence	\$43,225	78	⚠	↗	Opt.	85	24	6.3	127	54.0	⚠	↗	↗	↗ / ↗	↗	3+2	
✓	Cadillac XTS Premium	\$57,200	77	↗	⚠	Opt.	82	22	7.2	128	53.0	↗	↗	↗	↗ / ↗	⚠	4+1	
	Lincoln Continental Select (2.7T, AWD)	\$55,590	75	⚠	↗	Opt.	83	20	6.6	127	51.5	↗	↗	↗	⚠ / ↗	⚠	2+2	
	Acura RLX Tech	\$55,345	75	↗	⚠	Std. / ↗	75	23	6.5	128	51.5	⚠	⚠	↗	↗ / ↗	⚠	2+3	
	Mercedes-Benz E300 4MATIC ⚠	\$69,585	74	⚠	↗	Std. / ↗	85	24	7.1	128	54.5	↗	↗	↗	↗ / ⚠	⚠	2+2	
	Volvo S90 T6 Momentum (AWD) ⚠	\$61,855	62	⚠	↗	Std. / ↗	73	23	7.2	130	52.5	↗	⚠	↗	↗ / ↗	⚠	2+2	
	Jaguar XF Prestige (AWD, V6)	\$66,586	61	⚠	↗	Opt.	83	21	5.8	128	51.0	↗	↗	↗	↗ / ↗	⚠	2+1	
	ULTRA-LUXURY CARS																	
✓	Lexus LS 460L	\$82,504	87	↗	↗	Opt.	89	21	6.2	140	48.5	↗	↗	↗	↗ / ↗	⚠	3+2	
✓	BMW 750i xDrive ⚠	\$110,645	85	⚠	↗	Opt.	99	21	5.3	131	52.5	↗	↗	↗	↗ / ↗	⚠	2+4	
✓	Audi A8 L	\$91,275	82	↗	↗	Opt.	91	21	5.5	126	52.0	↗	↗	↗	↗ / ↗	⚠	3+1	
✓	Genesis G90 Premium (3.3T, AWD)	\$71,550	81	⚠	↗	Std. / ↗	89	18	6.0	130	52.0	↗	↗	↗	↗ / ↗	↗	3+0	
✓	Cadillac CT6 Luxury (3.6, AWD)	\$64,485	81	⚠	↗	Opt.	95	22	6.5	125	52.0	↗	↗	↗	↗ / ↗	⚠	3+2	
	Mercedes-Benz S550 (4MATIC) ⚠	\$114,475	68	⚠	↗	Std. / ↗	96	18	5.1	128	51.0	↗	↗	↗	↗ / ↗	⚠	2+3	
	LARGE SUVs																	
✓	Ford Expedition EL Limited	\$63,080	67	↗	↗	NA	61	14	7.2	136	45.0	⚠	↗	⚠	↗ / ↗	↗	71.0	
✓	Toyota Sequoia Limited	\$54,005	65	↗	↗	NA	60	15	7.1	146	47.0	⚠	⚠	↗	↗ / ↗	↗	61.0	
	Nissan Armada Platinum	\$63,020	59	⚠	↗	Opt.	69	14	6.7	133	51.0	⚠	↗	↗	↗ / ↗	↗	46.5	
	Dodge Durango GT (V6)	\$43,525	58	⚠	↗	Opt.	83	18	8.3	134	48.0	⚠	↗	↗	↗ / ↗	↗	44.0	
	Chevrolet Suburban LTZ	\$69,790	54	⚠	↗	Opt.	74	16	7.9	139	47.0	⚠	↗	↗	↗ / ↗	↗	62.5	
	Chevrolet Tahoe LT	\$60,100	51	⚠	↗	Opt.	67	16	7.7	136	45.0	⚠	⚠	↗	↗ / ↗	↗	47.5	

SCORES IN CONTEXT: Recommended models did well in our Overall Score, which factors in Road-Test Results, Predicted Reliability, Owner Satisfaction, and Safety performance, which includes crash-test results

and the availability of front-crash prevention features, such as forward-collision warning and automatic emergency braking at city or highway speeds. For these systems, NA means

no such system is offered; Opt. means it's available on some versions but not necessarily on the one we tested; and models with standard systems are rated from 1 to 5 based on how many of these features are standard.

We now deduct points from the Overall Score if a vehicle's shifter is confusing, lacks fail-safes, or is difficult to operate. For full ratings, go to [CR.org/cars](https://www.cars.com).

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a

Air conditioners	Jul 16, 17
Air travel	
industry trends	Oct 16, 18
passenger tips	Oct 16, 18
Air-ambulance companies	May 17, 52
Antibiotics	
in meat	Jun 16, 8

AUTOMOBILE RATINGS

Acura MDX	Nov 16, 60
Audi A4	Nov 16, 66
Audi Q7	Jul 16, 62; Oct 16, 57; Nov 16, 60
BMW 7 Series	Oct 16, 57
BMW 330i	Feb 17, 54
BMW X1	Jul 16, 63
Buick Cascada	Oct 16, 63
Buick Enclave	Nov 16, 60
Buick Envision	Jan 17, 59
Buick LaCrosse	May 17, 59
Buick Regal	Feb 17, 46
Cadillac CT6	Dec 16, 75
Cadillac XT5	Dec 16, 74
Chevrolet Camaro	Oct 16, 63
Chevrolet Corvette	Feb 17, 46
Chevrolet Cruze	Sep 16, 66
Chevrolet Malibu	Oct 16, 62
Chevrolet Sonic 1.8	Sep 16, 60
Chevrolet Spark	Sep 16, 66; Oct 16, 57
Chevrolet Volt LT	Aug 16, 68
Chrysler Pacifica	Nov 16, 66; Feb 17, 46
Dodge Durango	Nov 16, 60
Ford Expedition	Feb 17, 46
Ford F-150	Feb 17, 46
Ford Flex	Nov 16, 60
Genesis G90	May 17, 58
GMC Acadia	Mar 17, 63
Honda Accord	Sep 16, 63; Nov 16, 60
Honda Civic	Sep 16, 63; Oct 16, 57
Honda Fit	Sep 16, 60
Honda HR-V	Sep 16, 60
Honda Ridgeline	Feb 17, 46; Mar 17, 62
Hyundai Azera	Nov 16, 60
Hyundai Elantra	Sep 16, 67
Hyundai Genesis	Feb 17, 46
Infiniti Q50	Feb 17, 54
Infiniti QX30	Mar 17, 63
Jaguar F-Pace	Dec 16, 74
Jaguar XF	Dec 16, 75
Kia Optima	Jun 16, 62; Oct 16, 57; Feb 17, 46
Kia Sorento	Nov 16, 60; Feb 17, 46
Kia Soul	Sep 16, 60, 63; Nov 16, 60
Kia Sportage	Oct 16, 62
Lexus ES	Nov 16, 60
Lexus LS 460	Nov 16, 60
Lexus RX	Nov 16, 60
Lincoln Continental	May 17, 58
Lincoln MKX	Oct 16, 57
Mazda CX-3	Sep 16, 60
Mazda CX-9	Nov 16, 67
Mazda3	Sep 16, 63
Mercedes-Benz E300	Feb 17, 55
Mercedes-Benz GLC300	Jul 16, 62
Mini Clubman	Sep 16, 67
Nissan Armada	May 17, 59
Nissan Sentra	Oct 16, 57
Nissan Titan XD	Nov 16, 67
Nissan Versa Note	Sep 16, 60
Porsche Macan	Feb 17, 46
Scion iA	Sep 16, 60, 63
Smart ForTwo	Oct 16, 57
Subaru Forester	Sep 16, 63; Nov 16, 60
Subaru Impreza Hatchback	Nov 16, 60
Subaru Legacy	Sep 16, 63
Subaru Outback	Nov 16, 60
Tesla Model X	Jan 17, 59
Toyota Avalon	Jun 16, 64; Nov 16, 60
Toyota Highlander	Nov 16, 60
Toyota Prius	Oct 16, 57; Feb 17, 46
Prius Three	Aug 16, 67
Prius V	Nov 16, 60
Toyota RAV4	Jul 16, 63; Sep 16, 63; Nov 16, 60
Hybrid	Feb 17, 46
Toyota Sienna	Nov 16, 60
Toyota Tacoma	Jun 16, 63; Oct 16, 57
Volkswagen Alltrack	Mar 17, 62
Volvo S90	Feb 17, 55

AUTOMOBILES & AUTO EQUIPMENT

Automatic braking	Jun 16, 8
Best & worst lists	Apr 17, 30
Brand Report Card	Apr 17, 36
Child car seats	Jan 17, 56
Coming in 2017	Apr 17, 38
Dash cams	Mar 17, 58
For families	Nov 16, 60
For first-time drivers	Sep 16, 63
Gear shifters	
flawed designs	Apr 17, 20
Infotainment systems	Jul 16, 58
Insurance	
savings	Mar 17, 42
New car preview	Oct 16, 57
Owner satisfaction	Feb 17, 46
Profiles, 2017	Apr 17, 52
Ratings, 2017	Apr 17, 40
Reliability	Dec 16, 66; Apr 17, 86
Seat belts	Aug 16, 61
Self-driving cars	Apr 17, 10
Small SUVs	Apr 17, 7
Tires	Apr 17, 17
ultra-high-performance	Jan 17, 52
Top Picks for 2017	Apr 17, 22
For urban driving	Sep 16, 60
Used cars	Apr 17, 49
shopping	Jun 16, 57

b-d

Bicycle helmets	Aug 16, 20
Cashless payment	Nov 16, 48
Casual restaurants	Nov 16, 38
Chicken	
food safety	Jun 16, 8
Clothing	
insect-repellent-treated	Aug 16, 25
Coffee	Nov 16, 11
beans and equipment	
as gifts	Dec 16, 58
cold-brew	Jun 16, 23
Consumer action	
antibiotic scorecard, fast food	Dec 16, 8
antibiotic-free chicken at Pizza Hut	Oct 16, 8
bank fraud victims' rights	Mar 17, 8
banking complaints	Dec 16, 8
cable costs	Aug 16, 8
car advertising, misleading	Nov 16, 10
clean power	Jan 17, 8
drug prices	Oct 16, 8
electric vehicle sales	May 17, 8
financial advisers	Jul 16, 8
food	
arsenic levels	Jul 16, 8
labeling	Oct 16, 8
fraud restitution	Apr 17, 6
free speech in	
customer reviews	Nov 16, 10; Mar 17, 8
fuel economy	Sep 16, 8; Apr 17, 6
hospital infections	May 17, 8
Ikea dresser recall	Sep 16, 8
medical bills	
surprise bills	Aug 16, 8; Dec 16, 8
merger opposition	
health insurers	Nov 16, 10; May 17, 8
media companies	Mar 17, 8
net neutrality	Sep 16, 8
payday loans	Oct 16, 8
prepaid cards	Jan 17, 8
privacy protection	Jan 17, 8
recalled-car rental reform	Apr 17, 6
self-driving cars	Feb 17, 6
solar power	Feb 17, 6
student debt	Aug 16, 8; Oct 16, 8
borrower defense	Feb 17, 6
Consumer Reports	
tough safety scoring	Apr 17, 6
Conversations about money	May 17, 44
Coolers	Jul 16, 15
Countertops	
kitchen	Aug 16, 40
Dating services, online	Feb 17, 38
Debt	
educational/student	Aug 16, 28
key questions	Aug 16, 34
Dishwashers	Aug 16, 40
drying function	Jun 16, 26
Drones	Jan 17, 44

Drugs	
off-label	Feb 17, 12
pain relievers	Jun 16, 28
pricing	Aug 16, 52
sleeping pills	Feb 17, 16
Dryers	
compact	Jan 17, 12

e-g

Education debt	Aug 16, 28
key questions	Aug 16, 34
Electronics	
as gifts	Dec 16, 26
for social media users	Dec 16, 38
retailer ratings	Dec 16, 33
Entertainment	
as gifts	Dec 16, 57
Eyeglasses, prescription	Feb 17, 7
Financial services	
robo-advisers	Sep 16, 44
Fitness trackers	Jul 16, 9
Flooring	
formaldehyde in	Sep 16, 15
kitchen	Aug 16, 40
Food	
as gifts	Dec 16, 34
at the mall	Mar 17, 36
meal-kit delivery services	Oct 16, 32
for parties	Jan 17, 9
storage	Sep 16, 50
waste reduction	Sep 16, 50
Generators	Oct 16, 14
Gift cards	Dec 16, 25
Gift registries	Dec 16, 41
Gifts	
for coffee connoisseurs	Dec 16, 58
for family chefs	Dec 16, 18
for food lovers	Dec 16, 34
for gadget geeks	Dec 16, 26
high-end	Dec 16, 62
for home entertainment enthusiasts	Dec 16, 52
for outdoor enthusiasts	Dec 16, 46
for social media users	Dec 16, 38
for travelers	Dec 16, 42
Grills	Jul 16, 30

h-k

Headphones	Jul 16, 44
Health insurance	
high-deductible	Jan 17, 16
open enrollment	Nov 16, 20
Healthcare	
advances	Jul 16, 52
history of Consumer Reports advocacy	Jul 16, 54
Hearing aids	Mar 17, 15
Heart health	May 17, 24
Heart-surgery devices	
infections from	Jan 17, 41
Helmets	
bicycle	Aug 16, 20
Home entertainment equipment	
as gifts	Dec 16, 52
Home improvements	
renovation	Jun 16, 40
Homeowner tips	Mar 17, 22
Hospital infections	Jan 17, 32
Identity theft	
medical	Oct 16, 42
Insect repellents	Jul 16, 40
clothing	Aug 16, 25
Insurance	
car	
savings	Mar 17, 42
health	
high-deductible	Jan 17, 16
open enrollment	Nov 16, 20
Investment	
for kids	Dec 16, 31
Kettles	
electric	Sep 16, 9
Kitchen equipment	
as gifts	Dec 16, 18
Kitchens	
remodeling	Aug 16, 40

l-p

Laundry machines	
compact	Jan 17, 12
Lawn mowers	
electric	May 17, 9
Lightbulbs	
smart	Jun 16, 9
Luggage	Dec 16, 12
Mattresses	Feb 17, 16
Meal-kit delivery services	Oct 16, 32
Medical marijuana	Jun 16, 28
Nut butters	Nov 16, 16
Off-label drugs	Feb 17, 12
Outdoor equipment	
as gifts	Dec 16, 46
Pain relief	Jun 16, 28
Paint	
interior	May 17, 38
Pasta	
alternative ingredients	May 17, 14
Photography, smartphone	Jun 16, 10
Pillows	Feb 17, 16
Prepaid cards	Sep 16, 18
Pressure cookers	Oct 16, 9
Printers	Mar 17, 9
Privacy, personal data	Nov 16, 24
protection tips	Nov 16, 28

r-s

Ranges	Aug 16, 40; Nov 16, 54
Refrigerators	Aug 16, 40
Restaurants, casual	Nov 16, 38
Retirement	Jan 17, 22
Scams	
medical identity theft	Oct 16, 42
Sleep aids	Feb 17, 16
Smartphones	Mar 17, 48
photo lens add-ons	Jun 16, 10
Samsung Galaxy S line	Jun 16, 27
Snow blowers	Dec 16, 9
Solar power	Aug 16, 10
Speakers	
wireless	Jul 16, 44
Stores	
return policies	Dec 16, 30
Streaming media	
services & players	Jun 16, 15
streaming music services	Jul 16, 44
Student debt	Aug 16, 28
key questions	Aug 16, 34
Sunscreens	Jul 16, 20
Supplements	Sep 16, 20

t

Talking about money	May 17, 44
Telephones	
smartphones	
Samsung Galaxy S line	Jun 16, 27
Television sets	Sep 16, 34; Feb 17, 30
Tickets	
pricing, scalpers	Aug 16, 16
Toilets	Jun 16, 13
Towels	
sandproof	Jul 16, 15
Transportation	
coming developments	Oct 16, 50
history of Consumer Reports advocacy	Oct 16, 52
Travel	
gifts suitable for	Dec 16, 42

u-w

Umbrellas	
beach	Jul 16, 15
Vacuum cleaners	
Veggie burgers	Jun 16, 20
Video	
how to shoot	May 17, 18
Virtual reality	Oct 16, 10
Voice-activated devices	Sep 16, 10
Voting	
online	Jul 16, 10
Washing machines	
compact	Jan 17, 12
Wedding industry	Jun 16, 48

Spring Is in the Air

No matter what the season, it's funny business as usual on these silly signs, ads, and labels

Niños Nachos

Gives new meaning to
"the children's menu."

Submitted by Edward Bass
of Burbank, Ill.



An Inconvenient Truth?

"Probably a good thing they took the day off," wrote Jeff and Chris McGee of Nampa, Idaho



Start Making Cents

Just think: By December, you can afford to buy another pack!
Submitted by Maureen Thurston of Pickerington, Ohio



A Weighty Typo

Unless she's Tinkerbell, we bet this model weighs more than 40 pounds.

Submitted by Jeffrey Thomson of LaGrange, Ohio



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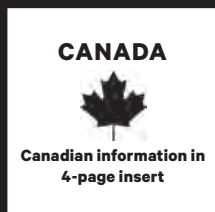
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Canada Extra

Walk-Behind Mowers **32a**
 Riding Mowers **32b**
 Recalls **32b**
 Autos **32d**
 Contact Info **32d**

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 (*). Check marks identify CR Best Buys or recommended

products in the U.S. ratings. "NA" in a chart means that information wasn't available from the manufacturer. We include, in the Contact Info list on page 32d, the manufacturer's phone number and web address in Canada so that you can call or go online to get information on a model you can't find in the stores. (Many products that aren't available in Canadian stores can be bought online.)

We appreciate your support, but we don't take it for granted. Please write to

CanadaExtra@cu.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 Products

with this icon offer the best combination of performance and price. All are recommended.

✓ Recommended Models

with this designation perform well and stand out for reasons we note.

Walk-Behind Mowers

Eight of the tested walk-behind mowers are available, including 8 of the recommended models. **Report and Ratings, pages 9-13**

Rec.	Rank	Brand & Model	Price	Overall Score
GAS SELF-PROPELLED MOWERS				
\$	7	Honda HRR216VKC	\$690	77
✓	8	Toro Recycler Smartstow 20340	\$600	73
\$	11	Toro Recycler 20332	\$550	71
✓	12	Ariens Razor 911177	\$795	71
GAS PUSH MOWERS				
\$	1	Cub Cadet SC100	\$365	68
✓	2	Ariens Razor 911173	\$550	67
ELECTRIC PUSH MOWER				
\$	1	Ego LM2101	\$700	67
ELECTRIC SELF-PROPELLED MOWER				
\$	1	Ego LM2102SP	\$900	68

HONDA
HRR216VKC
\$690 (CAN.)

77
OVERALL
SCORE



ARIENS
RAZOR 911177
\$795 (CAN.)

71
OVERALL
SCORE



Riding Mowers

Twelve of the tested tractors are available, including 10 of the recommended models. **Report and Ratings, pages 9-13**

Rec.	Rank	Brand & Model	Price	Overall Score
LAWN TRACTORS				
✓	1	John Deere X350-42	\$4,225	78
	3	Cub Cadet XT1 LT46	\$2,500	77
	5	Cub Cadet XT1 LT42	\$2,100	76
✓	6	John Deere S240-42	\$3,300	76
\$	7	John Deere D130-42	\$2,620	76
✓	9	John Deere D155-48	\$3,035	74
\$	10	John Deere D125-42	\$2,375	74
ZERO-TURN-RADIUS LAWN TRACTORS				
✓	3	Troy-Bilt Mustang 50	\$3,800	79
✓	4	Cub Cadet RZT L54 KH	\$4,100	79
✓	5	Cub Cadet RZT L 46 H	\$4,050	78
\$	7	John Deere Z335E-42	\$3,450	73
✓	10	John Deere Z345R-42	\$3,865	72

JOHN DEERE
X350-42
\$4,225 (CAN.)

78

OVERALL
SCORE



RECALLS

2005-2010 Acura, Audi, BMW, Ford, Honda, Infiniti, Lexus, Lincoln, Mazda, Mercedes-Benz, Nissan, Subaru, and Toyota models

On certain vehicles, long-term exposure to high absolute humidity and temperature, combined with high temperature cycling, could eventually degrade the propellant contained in the passenger frontal airbag. This could cause the airbag to deploy with more force than normal. Fragments could be propelled toward vehicle occupants, and the airbag assembly could be damaged, preventing proper function.

MODELS 428,641 2005-2006 Acura MDX, 2005-2008 RL, and 2006-2008 CSX; and 2005-2008 Honda CR-V, Element, and Pilot, 2006-2008 Civic and Ridgeline, 2007-2008 Fit, and 2008 Accord vehicles (recall number 2017009).

8,853 2005-2006 Mazda MPV and 2005-2008 RX-8 vehicles (recall number 2017011).

130,661 2006-2008 Lexus IS250 and IS350, and 2007-2008 ES350 and 2008 IS F; and 2006-2008 Toyota Yaris vehicles (recall number 2017007).

15,009 2007-2008 Mazda CX-7 and CX-9 vehicles (recall number 2017012).

7,671 2007-2008 BMW X5 and 2008 X6 vehicles (recall number 2017016).

6,370 2008 Mercedes-Benz C-Class (recall number 2017017).

25,303 2005-2006 Subaru Baja and 2006-2008 Impreza, Impreza WRX/STI, WRX, and Tribeca vehicles (recall number 2017020).

51,545 2005-2008 Infiniti FX35 and FX45, and 2006-2010 M35 and M45; and 2007-2009 Nissan Versa vehicles (recall number 2017023).

161,145 2005-2008 Ford Mustang, 2006 GT, 2006-2008 Fusion, and 2007-2008 Ranger and Edge; and 2006-2008 Lincoln MKX, MKZ, and Zephyr vehicles (recall number 2017024).

18,064 2005-2008 Audi A6, 2006-2008 A4 and S4, and 2007-2008 RS4 and S6 vehicles (recall number 2017026).

WHAT TO DO Depending on the model, have the dealer replace either the passenger frontal airbag inflator or the airbag assembly. Note: The Canadian climate results in the propellant degrading slowly. The recall is being conducted as a precaution to address future risk and is expected to replace airbag inflators before their function would be affected.

2006-2010 Pontiac and Saturn models

On certain vehicles, over time the flexible sensor mat of the passenger airbag suppression system (PPS) within the passenger seat can bend and become damaged, potentially causing the PPS module to suppress the front passenger airbag during a crash.

MODELS 7,143 2006-2010 Pontiac Solstice and 2007-2009 Saturn Sky vehicles.

WHAT TO DO To be determined. Note: If an active fault exists in the PPS system, the airbag malfunction-indicator lamp will illuminate and the passenger airbag telltale will indicate that the airbag is off. Additionally, the driver information center will display a "Service Airbag" message, and the audio system will play an audible warning chime.

2010-2011 Mazda models

On certain vehicles, the push nuts and/or the lifter link that adjusts the height of the driver seat could be of insufficient strength and could break or become detached from the

seat frame, causing the seat height and inclination position to change rapidly.

MODELS 86,733 2010-2011 Mazda3 and 2011 Mazda2 vehicles.

WHAT TO DO Have the dealer inspect the condition of the driver's seat lifter link. If no cracks are detected, a reinforcement bracket will be added to the lifter links and the number of push nuts will be increased to two per seat lifter link. If any cracks are detected, have the dealer replace the entire seat adjuster unit with a modified part.

2010-2011 Mazda Tribute models

On certain vehicles, the thickness of the port wall of the fuel delivery module (FDM) may be below specification and could result in the supply port cracking, causing a fuel leak and possibly a fire.

MODELS 4,684 vehicles.

WHAT TO DO Have the dealer replace the FDM flange with a flange that has a redesigned fuel supply port.

2011-2016

Honda Odyssey models

On certain vehicles, the lever on the second-row outboard seats that allows access to the third-row seat may stay in the unlocked position after returning the seat to its normal seating position.

MODELS 52,710 vehicles.

WHAT TO DO Have the dealer install an additional bracket and spring to the second-row outboard seat adjuster to ensure proper engagement of the walk-in lever.

2011-2017 Audi Q5 models

On certain vehicles, if the water drainage system of the panoramic sunroof becomes damaged or impaired (such as during a repair), water could enter the side head curtain airbag canister and cause corrosion on the airbag inflator over time. If this happens, the

airbag canister could fracture without cause and allow fragments to be propelled toward vehicle occupants.

MODELS 36,349 vehicles.

WHAT TO DO Have the dealer inspect the vehicle for evidence of water ingress, examine the drainage system, disassemble the headliner and trim, and remove foam and inspect the side head curtain airbag canister for relevant corrosion. In cases where light surface corrosion is found, a wax will be applied to the inflator. In cases of more than light surface corrosion, the inflator will be replaced after a robustness check.

2012-2014 Chevrolet Orlando models

On certain vehicles, melting snow and water containing road salt may enter the vehicle and corrode a splice connection in the electric power steering (EPS) module circuit, leading to increased resistance in the EPS circuit and intermittent or permanent loss of the steering assist.

MODELS 12,035 vehicles.

WHAT TO DO Have the dealer seal the affected connection and repair it as necessary.

2013-2016 Mercedes-Benz Sprinter models

On certain vehicles, a reinforcement plate and the protective bracket may not have been installed on the airbag control unit. The airbag control unit could be damaged in the event of a frontal impact, potentially preventing the airbag system from working properly in the event of a secondary impact.

MODELS 1,818 vehicles.

WHAT TO DO Have the dealer install the reinforcement plate with the protective bracket.

2013-2017 Audi models

On certain vehicles equipped with a 2.0L TFSI engine, the coolant pump could become blocked by debris from the cooling system, leading to the pump overheating and an increased risk of a fire.

MODELS 47,704 2013-2015 Audi A6, 2013-2016 A4 and AllRoad, and 2013-2017 A5 and Q5 vehicles.

WHAT TO DO Have the dealer update vehicle software that deactivates the power supply to the coolant pump if the pump becomes blocked with debris. The driver will be notified of the blocked coolant pump through the illumination of the electronic power control (EPC) lamp.

2014-2017 Chrysler and Dodge models

On certain all-wheel-drive vehicles, the front propshaft bolts may be loose, which could allow the front propshaft to disconnect from the vehicle—leading to a loss of motive power while driving and possible damage to the powertrain and/or underbody components.

MODELS 6,507 2014-2017

Chrysler 300 and Dodge Charger vehicles.

WHAT TO DO Have the dealer replace all eight front propshaft bolts.

2014-2017 Maserati models

On certain vehicles, the seat wiring harness layout may have been routed incorrectly during manufacturing and could cause the seat wiring harness to rub against metal points on the seat/seat frame assembly during normal seat adjustment. Over time, this could lead to an inoperative seat adjustment system and possibly an electrical short.

MODELS 1,838 2014-2017 Maserati Ghibli, Levante, and Quattroporte vehicles.

WHAT TO DO Have the dealer inspect the routing, secure and protect the seat wiring harness, and, if necessary, install a new seat wiring harness.

2015-2017

Mercedes-Benz models

On certain vehicles, the starting current limiter could be overloaded under certain conditions. If the starter is blocked, a very high electric current could flow through the starting current limiter during repeated engine starting attempts. This could cause the starting current limiter to overheat and surrounding components to melt.

MODELS 27,000 2015-2017

Mercedes-Benz B-Class, C-Class, CLA-Class, E-Class, GLA-Class, and GLC-Class vehicles.

WHAT TO DO Have the dealer install an additional fuse in the electrical line to the starter.

2016-2017 Toyota Tundra models

On certain vehicles equipped with the plastic rear step bumper, the resin reinforcement brackets that secure the step corners of the bumper could become damaged after a rear impact. Part of the bumper could break off if it's stepped on, which could cause the person to fall.

MODELS 6,157 2016-2017 vehicles.

WHAT TO DO Have the dealer replace the resin reinforcement brackets with steel reinforcement brackets. In addition, the rear bumper tread covers will also be replaced.

2017 Hyundai Elantra models

On certain vehicles, the diaphragm in the brake booster may unseat due to a manufacturing defect, resulting in a vacuum leak in the brake system and a reduction or loss in power brake assist. This would increase pedal effort and extend stopping distances.

MODELS 3,039 vehicles.

WHAT TO DO Have the dealer replace the vehicle brake system's booster assembly.

Autos

All of the tested vehicles are available in Canada. **Report and Ratings, pages 58-60**

Make & Model	Price Range	Acceleration (Sec.)				Fuel Economy (Liters per 100 km)		
		0-50 km/h	0-100 km/h	80-100 km/h	500 Meters	City Driving	Highway Driving	Overall
LUXURY MIDSIZED CARS								
Buick LaCrosse	\$35,445–\$47,500	2.9	6.6	3.3	16.9	15.1	6.5	9.7
Lincoln Continental	\$56,900–\$60,500	2.6	7.0	3.0	17.3	19.1	7.3	11.7
ULTRA-LUXURY CAR								
Genesis G90	\$84,000–\$87,000	2.7	6.4	2.9	16.6	21.0	8.4	13.1
LARGE SUV								
Nissan Armada	\$64,248–\$69,998	2.7	7.2	3.7	17.5	24.4	12.1	16.7

GENESIS G90
PRICE AS TESTED
\$71,550 (U.S.)

81

OVERALL
SCORE



BUICK LACROSSE
PRICE AS TESTED
\$43,225 (U.S.)

78

OVERALL
SCORE



LINCOLN CONTINENTAL
PRICE AS TESTED
\$55,590 (U.S.)

75

OVERALL
SCORE



NISSAN ARMADA
PRICE AS TESTED
\$63,020 (U.S.)

59

OVERALL
SCORE



Contact Info

How to reach manufacturers in Canada.

Ariens
ariens.com

Cub Cadet
800-668-1238
cubcadet.ca

Ego
855-346-5656
egopowerplus.com

John Deere
800-537-8233
deere.ca

Honda
888-946-6329
powerequipment.honda.ca

Toro
toro.com/en-ca

Troy-Bilt
800-668-1238
troybilt.ca