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CREATE THE PERFECT KITCHEN P. 27

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The Rise of Superbugs

Dangerous infections that are resistant to antibiotics are spreading and growing stronger. Medical experts say it is a mess of our own making—and the clock is ticking on when and how we must solve it.

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READER LETTERS

On Bike Safety, Backyard Noise, and Bacteria

Privacy and Consumer Rights

Consumers don't have the time to read, nor the expertise to interpret, the privacy and data collection policies of every company or device with which they interact. Customers should have the reasonable expectation that anything learned about them is held in confidence and only in the company with which they do business. Compromising on anything less is merely giving consumers the illusion of privacy while organizations do as they wish, aided by unread or cleverly drafted policies and controls.

—Bob Korman, Coppell, TX

Privacy: Orwell 2.0

Your article "In the Privacy of Your Own Home" (June 2015) brought to mind the George Orwell book "1984." Maybe the name should have been "2024." Scary, isn't it?

—Dottie Wilkins, via e-mail

The Truth About Shrimp

Your article "How Safe Is Your Shrimp?" (June 2015) was as informative an article as I have ever read in CR. We can only hope that it will spur the government into changing the way they monitor and inspect the shrimp industry. I have to say, though, that you have taken the fun out of all my future visits to Chinese buffet restaurants. Please say you have no intentions of doing a similar article with regard to egg rolls.

—Bill Taglia, Southington, CT

Lobby the Manufacturer!

Regarding "Ask Congress for Safer Detergent Pods" (Your Advocate, June 2015), I say, why ask Congress? Why not just ask the manufacturers? Let Congress do the real work (maybe).

—Gary Zollweg, San Jose, CA

Neighborly Request

There was one important thing missing from "Your Outdoor Oasis" (June 2015), especially with regard to outdoor speakers: Be kind to your neighbors, and they will be kind to you. Become familiar with the noise ordinances in your town and respect them. And for Pete's sake, change it up once in a while. You may still be digging that Pink Floyd boxed set that you got for Christmas 2010, but the rest of us, not so much.

—Paul Kane, Irondequoit, NY

An App to Tackle Unit Pricing

Regarding "No Basis for Comparison" (Your Advocate, June 2015), I'd like to share a solution to disparate unit pricing. The app CompareMe allows you to plug in an amount, package size (by number, mass, volume, surface, or length), and price on two items, press a button, and see a true comparison.

—Annette Licitra, Alexandria, VA

Reflective Gear for Bikers

Why do you think that cyclists only need to be visible at night ("Stand out at Night," Lab Tests, June 2015)? They are visible in bright sunlight, but when a biker is in deep shade and a motorist enters that shade from bright sunlight, a yellow vest or windbreaker can be a lifesaver. Ditto for the latest generation of LED head- and taillights. These items are such cheap insurance.

—Paul Huenemann, Hollister, CA

The Best Way to Wash Veggies

In the July 2015 issue I am told, on page 9 ("Listeria Lurks: Protect Yourself"), to thoroughly wash my produce under running water to help protect my family from possible listeria infection. A short time later, on page 15 ("How to Cut Your Water Use in Half"), I am told NOT to wash my produce under running water, so that I can do my part to conserve water. Um?

—Ron Phillips, Renton, WA

EDITOR'S NOTE Rinsing produce in a bowl of water does save water and remove dirt, but if there are any bacteria or microorganisms on the fruit or vegetables, that method increases the possibility of cross-contamination. We recommend that consumers wash all produce in running water. It may not remove all germs that might be on the produce, but it will reduce them. We regret the error.

A Clarification

In "Fakes, Phonies, and Frauds" (July 2015) we reported on counterfeit toasters with fake Underwriters Laboratories seals. We also showed a new UL label that is more difficult to fake because it has a gold hologram and color-shifting ink. Though the new label is on 28 product categories, including surge protectors and power strips, it is not found on toasters.

➔ **SEND** your letters for publication to ConsumerReports.org/lettertoeditor.

FROM THE PRESIDENT



Help Make Our Future Healthier

Consumer Reports has always been at the forefront of helping to identify and address emerging threats to public health. That's why, this month, we begin a three-part examination of the global crisis of antibiotic resistance, what we know, how it affects you, and what can be done about it.

We strongly believe that when you get really sick, the drugs your doctor prescribes should work, and that if you go to the hospital, you shouldn't get a life-threatening infection. But the widespread misuse of antibiotics in human medicine and food-animal production is threatening our health and safety.

This first report, "The Rise of Superbugs," on page 20, examines how the unrestrained use of antibiotics has spread bacterial strains, such as *C. difficile* and MRSA, which are difficult to treat and sicken at least 2.25 million Americans a year, killing 37,000. What's worse, the Centers for Disease Control and Prevention warns that new strains could be even more contagious—and deadly.

At a recent White House Summit on the subject, I heard firsthand the challenges we face. They require us to act now to turn the tide. It's critical that doctors dispense—and patients ask for—antibiotics more judiciously, that agricultural producers use drugs only on sick animals, and that hospitals disclose their antibiotic use and promptly report outbreaks related to resistant infections.

I hope this issue, and our subsequent reports, empower you to be a part of the solution and to help keep your families safe.

—Marta L. Tellado, President and CEO

WHAT'S NEW THIS MONTH

Kitchen Tests by the Numbers

To help you get the most value from the hardest-working room in your home, we don't just twist a few knobs and wipe down some shiny new surfaces. We spend thousands of dollars—and hours—to make sure you make the best choices for your family. Below, some highlights from this year's testing. For the whole story, our 21-page remodeling guide, "Create the Perfect Kitchen for You," begins on page 27.

\$250,000 Amount we spent this year to buy, test, and rate the latest kitchen appliances.

7,000 Number of 10-ounce boxes of frozen spinach that we stuffed into each group of refrigerators we tested. (We test about 125 per year.)

2,500 Number of cookies we loaded into 40 ovens to test evenness of baking.

20 Number of substances we placed onto each countertop, to sit overnight. (In our rainbow of stains: red beet juice, yellow mustard, purple grape juice, and black shoe polish.)



About the Cover

You might call the germs on our cover Public Enemy No. 1. They are illustrations of carbapenem-resistant enterobacteriaceae, or CRE, a superbug that kills almost half of hospital patients infected with it. The Centers for Disease Control and Prevention calls it an "immediate public health threat" that's resistant to almost all antibiotics. Frightening, yes—but consumers, doctors, hospitals, government, and industry can all help remedy this situation. Read the report (on page 20), and see how to get involved (page 23).

Annual Meeting Ballot

Consumer Reports' annual meeting will be held Oct. 17. Please watch your e-mail for this year's annual ballot. If you haven't provided your e-mail address, you can call us at 800-666-5261. For a paper ballot, send a written request by Aug. 26 to: Consumer Reports, ATTN: BALLOT REQUESTS, 101 Truman Avenue, Yonkers, NY 10703.

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Your ADVOCATE

LIVE LONG AND PROSPER

Life expectancy is rising, but your savings? Maybe not so much. There are five steps you can take to make your money last as long as you do. See page 10.

LONGER LIVES

Fifty years ago, average life expectancy in the U.S. was age 70. Now, it's almost 79.

BILLIONS LOST

Workers give up \$24 billion per year in their 401(k) plans by not saving enough to get the full amount of employer matching funds.

CAN YOU AFFORD IT?

The lower your income, the higher percentage of it you'll need to retire. Learn about online calculators on page 12.

READER TIP

DIY Herbicide: Effective and Safe

“Mix one gallon of vinegar, 2 cups of Epsom salt, and ¼ cup Dawn dish soap. Pour in a sprayer and spray on weeds. It will kill them as well as Roundup does.”

—David Stone, *Sophia*, WV

Our experts add: The World Health Organization recently classified glyphosate, an active ingredient in Roundup, as a probable carcinogen. The alternative herbicide works because the vinegar is a mild acid, and with the Epsom salt and the detergent, it forms a scum that coats the weeds. Or try the citrus oil-based Avenger Weed Killer, which meets the strict standards of the Organic Materials Review Institute.



HEROES AND WATCHDOGS

How a Fight Against Robocalls Gave Rise to an Activist



Most people consider robocalls to be a nuisance, but Aaron Foss saw them as a challenge. The freelance programmer built a call-blocking application, Nomorobo, and entered it in a Federal Trade Commission-sponsored contest for the best tech solution to stop robocalls. When it won a \$25,000 prize, his first thought was to take the money and run. “I thought I’d go on vacation,” says Foss, laughing.

Then news of the award broke, and he heard from about 3,500 people who had been harassed or scammed by the calls. “Their stories stuck with me,” he says. “This was a problem to be solved.”

So Foss immersed himself in finding a solution, testified before a Senate subcommittee, and dedicated himself to bringing his invention to market. So far, Nomorobo has blocked more than 25 million robocalls. The cloud-based app, which analyzes

caller IDs and automatically disconnects suspicious calls, is free for many consumers who use Internet-based VoIP service; Foss says he’s committed to keeping it that way. “Eventually, this will be built into every phone line,” he says, “and the carriers will be paying for it.”

Earlier this year, Foss delivered to the Federal Communications Commission 30 cases of paper with more than 25,000 messages from his users and all of Nomorobo’s 2014 call logs. “I told them, ‘Here’s the scale of the problem,’” he says, “and here’s how passionate people are.”

And it appears that the FCC is listening. On May 27, chairman Tom Wheeler announced a new proposal that will push phone companies to offer call-blocking services to their customers.

➔ **TAKE ACTION** Go to endrobocalls.org for more information and to sign our petition.

GET INVOLVED

Actions You Can Take in August

➔ **STOP DECEPTIVE ADS IN KIDS’ YOUTUBE APP**

Geared toward children ages 5 and younger, Google’s YouTube Kids app is supposed to provide them with age-appropriate content. But that content is intermingled with “user generated” videos that are actually program-length ads for toys and candy. Several groups, including Consumers Union, the advocacy arm of Consumer Reports, have filed a complaint with the Federal Trade Commission. Share your concerns at ftc.gov/complaint.

➔ **FIGHT SURPRISE BILLS**

Have you ever opened a medical statement that didn’t quite add up because of an error or a surprise charge? Share your story and get state-specific resources at ConsumersUnion.org/Insurance-Complaint-Tool/.

➔ **THE WIN: SAFETY LABELS FOR TENDERIZED BEEF**

Beef that has been mechanically tenderized must soon carry a label, according to a new rule by the Department of Agriculture. Consumers Union pushed hard for that action because the process can drive dangerous bacteria deep into meat, increasing the risk of food poisoning. The new label will include cooking instructions to help ensure that bacteria are killed.



THE EMPOWERED CONSUMER

Can You Afford to Live to 100?

Life expectancy is up in America, but will your savings last as long as you do? Here, five ways to start planning for financial longevity now.

HOW LONG WILL YOU LIVE? It's a key question in retirement planning—and one many of us answer with an educated guess. If you're healthy and your family tree has branches with staying power, you may figure that you have decades ahead. If your parents died early of natural causes, you may assume a shorter life.

Yet research shows genes play a smaller role than most people think in determining longevity. More crucial is behavior. If you are eating better, smoking less, and exercising more than your parents did, there's a good chance you'll live longer than they

did. So it makes sense to consider that your own retirement may extend 30 to 40 years.

You'll also need to consider how much money to live on. Though with low expenses you may be able to get away with as little as 55 percent of your preretirement income, we judge that 85 percent of income from your last year of work is about right, based on a survey of recently retired Consumer Reports readers.

So how can you ensure your nest egg's longevity? Here are smart steps:

1 Put Off Claiming Social Security

Delaying Social Security is the least costly way to boost income later in life. For

instance, folks born in 1949—who are now reaching “full retirement age”—can earn a benefit that's 8 percent higher each year they delay, up to age 70.

HOW IT WORKS. Delaying your claim shortens the payment period of your benefit, so you get more each month. Conversely, taking Social Security early—you can claim as young as 62—permanently reduces your monthly benefit because payment is stretched over a longer period.

WHAT TO KNOW. If you delay claiming Social Security, you risk never getting to use it. But if you're healthy, it's worth doing.

Some people think it's smart to claim early because they're concerned Social Security will go broke. Indeed, the 2014 Social Security Trustees report says cofers will be exhausted in 2033 if funding and benefit levels stay as they are. But after that, the program could still pay 75 percent of scheduled benefits even without a fresh infusion of taxes, according to the Trustees. Coupled with tax increases to help shore up the system, benefit modifications could be far more modest, suggests Kathy Ruffing, a senior fellow at the nonpartisan Center on Budget and Policy Priorities. Those changes, “carefully crafted to shield recipients with limited means and to give ample notice to all participants, could put the program on a sound footing indefinitely,” she maintains.

STRATEGY. At the least, wait to claim until your full retirement age, which ranges from 66 (for people born from 1943 to 1954) to 67 (for people born in 1960 and later). Divorcees, couples with substantial income differences, surviving spouses, and others can use claiming strategies to increase benefits. (See “Can You Retire Yet? How to Crunch the Numbers,” on page 12, for resources.)

2 Buy a Simple Annuity

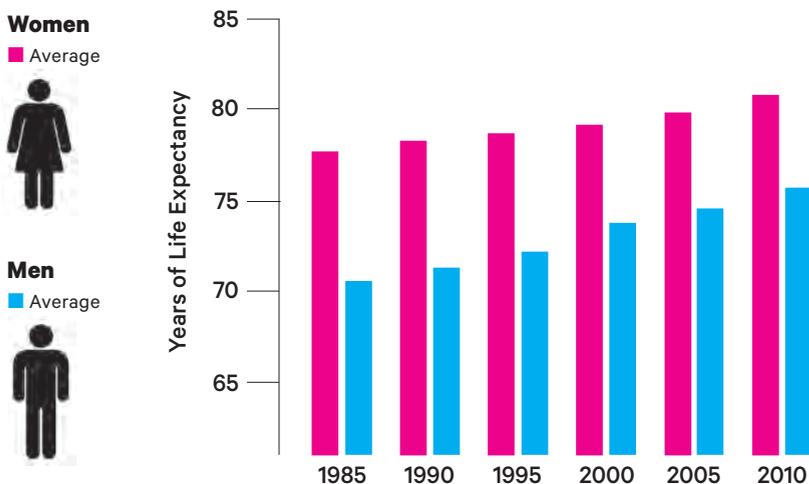
Consumer Reports' surveys of retired readers show that having a pension—guaranteed income—correlates with satisfaction in retirement. As traditional pensions disappear, insurers are stepping up their marketing of annuities, which promise pensionlike, lifetime income.

Two types of simple annuity products are worth a look.

With a fixed immediate annuity, you pay a lump-sum premium and get guaranteed, monthly income right away. That could

Life Expectancy Is Looking Up

National average life expectancy in the U.S. for women and men from 1985 to 2010



Women have longer life expectancies than men, and being in a couple improves longevity for at least one member compared with being single.

23%

Probability that a woman, age 65, will live to 95.

17%

Probability that a man, age 65, will live to 95.

14%

Probability that one partner in a 65-year-old couple will live to 100.



Money Tips for Young Investors

7 tried-and-true retirement savings strategies

be useful if you need retirement income but want to defer Social Security benefits.

With a deferred-income annuity (DIA), you pay up front or spread premiums over several years; payments begin from two years to as long as 40 years later. Longer-term versions are called longevity annuities. Knowing you'll have additional, guaranteed income later in life could give you the confidence to spend more earlier in retirement.

HOW THEY WORK. Policyholders who die earlier subsidize those who survive. The longer you defer, the more you benefit, because the annuity has more time to grow.

WHAT TO KNOW. You'll have to pay extra for a DIA that adjusts for inflation. A relatively new DIA type offers dividend income as an inflation hedge but doesn't guarantee how much.

The Internal Revenue Service exempts up to \$125,000—or 25 percent—of retirement accounts invested in “qualified longevity annuity contracts” when determining your required minimum distribution, up to age 85. That means you can delay payouts almost 15 years longer than normal, saving on taxes.

STRATEGY. The smaller your nest egg is, the less you'll want to devote to an annuity, which effectively locks up your savings. Wade Pfau, Ph.D., a professor of retirement income at The American College of Financial Services, warns against spending more than 40 percent of your assets on annuities. But he projects that a 65-year-old could cover all spending after age 85 by devoting 10 to 15 percent of current assets toward purchasing a longevity annuity.

Choose from an insurer highly rated for financial strength by Weiss Ratings (weisswatchdog.com), which we've found to be more impartial than other ratings agencies. An independent agent can help you obtain multiple quotes.

Avoid the rider for a “cash refund” of premium, payable to your heirs if you don't use all that you paid in. It effectively negates the financial benefits of the product, Pfau says.

3 Consider Long-Term-Care Insurance

Genworth Financial, the largest seller of long-term-care insurance, estimates the average cost of nursing home care in a semiprivate room at \$80,300 per year (for your area's costs, go to genworth.com).

Some key investment tools cost nothing: time, patience, vigilance, and perseverance. Use them with even small investments for big payoffs at retirement.

START EARLY. Stock-price increases and compound dividends can turn a molehill into a mountain over time. Between 1928 and year-end 2014, the Standard & Poor's 500 Index returned an average 9.6 percent annually, not adjusted for inflation. Even at a more conservative rate of 6.5 percent for a 100 percent stock portfolio, a 22-year-old investing \$200 per month—roughly the cost of a sandwich and soda each day—would end up with \$248,600 at age 67, even if he never invested anything after age 30. If he invested \$200 per month for all 45 years, he'd have more than \$591,000.

INVEST REGULARLY. Save 10 to 15 percent of your income. Automatic contributions from your paycheck let you benefit from “dollar-cost-averaging.” The principle: That \$200 per month buys fewer shares when prices are high, and more when share prices are low. The average share price is lower than if you had invested sporadically and depended on market timing.

AVOID FUTURE TAXES. They'll erode earnings. While your income is relatively low, use tax-advantaged Roth 401(k) and IRA plans. You won't get a tax break up front, but your investments grow tax-free—a huge lift to returns—and you'll pay no tax on withdrawal years later, when your presumably higher income could be subject to higher tax rates.

DIVERSIFY AND ALLOCATE. Varying your holdings reduces your risk of losing money;

usually when some holdings go down, others go up. Mutual funds—collections of stocks or bonds—provide that diversification. Investing in several mutual funds that focus on different types and sizes of companies—large-cap, small-cap, and international, for example—reduces your risk more. While you're young, put all or nearly all of your holdings in growth-oriented, equity (stock) mutual funds. As you age, shift gradually to less risky bond holdings.

FOCUS ON LOW COST. By one estimate, a typical couple loses more than \$150,000 to mutual-fund fees over a lifetime of 401(k) savings. Pick index mutual funds keyed to broad-based market indices such as the S&P 500; they have low fees because they require little active management. Investment researcher Morningstar has shown a high correlation between low cost and superior performance over time.

REBALANCE. Periodically sell holdings that have grown to reset to the proper proportion of stocks to bonds. Target-date retirement funds are baskets of low-cost, index mutual funds that rebalance automatically as you age. They're the default investment option in many 401(k) plans for good reason. They encompass many of the key principles of investing mentioned here: diversification, low cost, and automatic rebalancing.

BE PATIENT. Studies by the investment research company Dalbar have shown that folks who stay put during market volatility do far better than those who panic and sell, expecting to return to the markets later. So buy, hold, and reap the rewards.

You probably won't end up facing such frightening bills for years on end. The Center for Retirement Research at Boston College estimates that although 44 percent of men and 58 percent of women currently age 65 will need nursing home care at some future time, stays will average less than a year for men and less than 18 months for women. The bulk of care will be provided in the home or another

community setting. About half of nursing home and retirement care expenses are covered by either Medicare or Medicaid.

However, assisted living facilities, where the median stay is 22 months and the median cost is \$43,200 annually, may not accept Medicaid. And though Medicaid funds some home care, making up the difference can burden your family. Long-term-care insurance can help fill the gap.

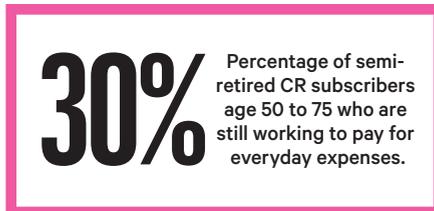
HOW IT WORKS. Though you buy a policy based on a monthly benefit, you're really purchasing a lifetime benefit: a pot of money that can be spent flexibly.

If, for instance, your policy provides for \$4,500 per month of nursing care for a total of \$162,000 over your lifetime but you use just \$3,500 per month in the first year on home-based care, you'll have more left over to use in a nursing home later. (With a pooled benefit rider, partners can both draw from one pool of funds.)

WHAT TO KNOW. A 55-year-old buying \$6,000 per month of coverage for a \$219,000 lifetime pool of benefits and a 3 percent inflation protection could pay \$2,664 per year, says Steve Cain, a principal at LTCI Partners, a long-term-care insurance brokerage. (The policy includes a 90-day elimination period, during which the buyer must pay for care out of pocket.) Single women can pay more than single men. In most cases you lose all benefits if your premiums lapse. And, as with any insurance, you may never use it.

STRATEGY. Ask a financial planner whether you can afford it. The National Association of Insurance Commissioners recommends paying no more than 7 percent of annual income in premiums. "Consumers who look at this usually have assets of \$300,000 and up, not including their home," Cain states. You'll pay less if you initiate coverage before age 60; Cain says that as a rule of thumb, you'll pay 6 to 8 percent more each year that you wait.

Base your expected daily benefit on current costs where you plan on retiring, and your lifestyle and budget. Subtract what you can afford per day out of pocket from



the daily cost. The longer your elimination period, the cheaper the policy will be; 90 days is the most common.

If possible, buy coverage through a state Medicaid partnership program. If care costs exceed your private-insurance coverage, you don't have to spend down as much to qualify for Medicaid. Not all states offer the programs; contact your state department of insurance for availability.

As with annuities, choose from among highly rated carriers. And be prepared: Premiums could rise a lot over time.

4 Mind Your Withdrawals

If costly insurance premiums aren't options, consider changing your lifestyle and expectations.

HOW IT WORKS. Working longer and ramping up savings for just a few years longer can improve your prospects. Say you earn \$85,000 at age 59, have \$75,000 saved, and get yearly raises of 2 percent. Assuming an annual return of 6 percent, saving 15 percent of your income for five years would grow your nest egg to \$175,000 by age 64.

WHAT TO KNOW. Saving more in your last years of work not only builds your nest egg but also forces you to practice living with less. If you can increase savings by 10 percent and still pay the bills, you will

probably need less than the 85 percent earnings replacement rate we recommend (see "Can You Retire Yet? How to Crunch the Numbers," below).

STRATEGY. Work with a financial adviser to draw up a realistic retirement budget and savings withdrawal rate, usually no more than 4 percent of assets.

5 Don't Overlook Medicaid

If there's a chance that you might need long-term care, whether at home or in a facility, it's wise to at least know your options through Medicaid.

HOW IT WORKS. Enrollees must be at poverty level—for individuals, around \$2,000 in "countable" assets; for couples, \$3,000—for at least five years (called a "look-back" period). But individual states may allow for more in assets and for a certain level of monthly income. And a lot doesn't count toward Medicaid. You won't have to sell your home if your spouse or certain other relatives are living there; home-equity limits apply. Exempt assets also include retirement accounts, one car, and prepaid burial plots. State rules vary; for details, go to benefits.gov.

WHAT TO KNOW. Spend-down rules exempt capital improvements that allow you to remain in your home for care. You can expend assets within the five-year period if they'll be used toward your care.

STRATEGY. An elder law attorney can help you transfer certain assets in advance of applying. Michael Ettinger, an elder law attorney based in New York City, recommends an irrevocable, Medicaid asset protection trust (MAPT). Only withdrawals of dividends and interest are permitted.

Can You Retire Yet? How to Crunch the Numbers.

HOW MUCH INCOME will you need in retirement? Are you on track? A retirement calculator, used correctly, will help you get a realistic picture. Two we like are AARP's (aarp.org/work/retirement-planning/retirement_calculator) and T. Rowe Price's (www3.troweprice.com/ric/ricweb/public/ric.do) because they can accommodate couples, not just individuals. With

some calculators, you may have to override built-in assumptions. Here are guidelines:

INFLATION. Input 3 or 3.5 percent. Pessimistic? Use 4 or 5 percent.

INVESTMENT RETURNS. Past performance is not predictive, and your allocations will shift over time. Historical, average annual returns of 9.6 percent for stocks and 5 percent for bonds mean

that a mix of 60 percent stocks and 40 percent bonds would return 7.8 percent. But to play it safe, we suggest estimating lower: for a 60/40 mix, 5 or 6 percent.

REPLACEMENT INCOME. You won't commute, fund a 401(k), or owe FICA taxes, but you're likely to spend on leisure early in retirement. Later, you'll spend more on health care. So go with 85 percent of expected final annual income.

SOCIAL SECURITY BENEFITS.

Get a free estimate from ssa.gov. For claiming strategies that may yield more, use Financial Engines' free Social Security planner (scroll midway down the home page); or pay a service such as Social Security Choices or Maximize My Social Security, \$40 each.

RATE OF ASSET WITHDRAWAL.

Theories vary, but 4 percent annually is a good starting point.

MONEY MATTERS

Surprising Credit-Card Benefits

Tucked away in the fine print are deals that can save you money

AFTER FEDERICO PRESUTTI FLEW from Pittsburgh to Pisa, Italy, to join his family for vacation, he was distressed to find that his bags hadn't made it there with him. "I figured it would mean losing at least a day of our vacation," says his father, Francesco Presutti. After initially panicking, Francesco remembered that he had bought the family's tickets with the Chase Sapphire Preferred credit card. He went online and discovered that doing so came with a big benefit: baggage-delay insurance. Turns out the card will cover purchases of up to \$100 per day for five days for things like toiletries and clothing. The family headed to their beach destination, and in a few hours Federico was outfitted with new clothes and sandals at no expense to any of them.

Many consumers apply for credit cards based on the kind of rewards or cash-back deals they offer, but few dig into the fine print to see what additional benefits there might be. Ignoring them could mean incurring unnecessary expenses.

At the same time, you need to be careful. Fringe benefits shouldn't sway your decision when it comes to choosing a credit card. The best way to save money, after all, is to get a card with a low interest rate and no or low fees, and to pay your balances in full every month.

Here are some more add-ons your card might offer:

Missed-Connection Insurance If you have traveled by air and missed a connecting flight, you know the fear. What do you do if there are no other suitable flights? One uncomfortable option is to camp out on the airport floor until something becomes available. If you're lucky, maybe the airline will wheel in cots. Or you can try to get it to pay for a hotel room, although it might not be willing or able.

But if you bought your ticket with any of a number of credit cards, including the Chase Sapphire or the Hyatt Visa, you could book a room on your own knowing that your credit-card issuer will pick up the tab. Cards

with missed-connection insurance let you take a taxi to a hotel, check in, order meals, and even buy toiletries. There might be restrictions: Your travel might need to be delayed by more than 12 hours, for example, or require an overnight stay. But if you meet them, you're covered for expenses of up to \$500 per ticket.

Price-Drop Protection It's frustrating to make a purchase only to see the item go on sale later. The price-protection benefit relieves the sting by refunding some or all of the difference. Barclaycard, Chase, Citi, Discover, and MasterCard offer some



version of that deal. The amount of protection varies and doesn't apply to all products. Jewelry, for example, is excluded. If you used a Discover card, the difference in price can't exceed \$500, and the refund limit is \$2,500 per year. Other cards, such as MasterCard, only refund a price drop of up to \$250 for a single item, and refunds are capped at \$1,000.

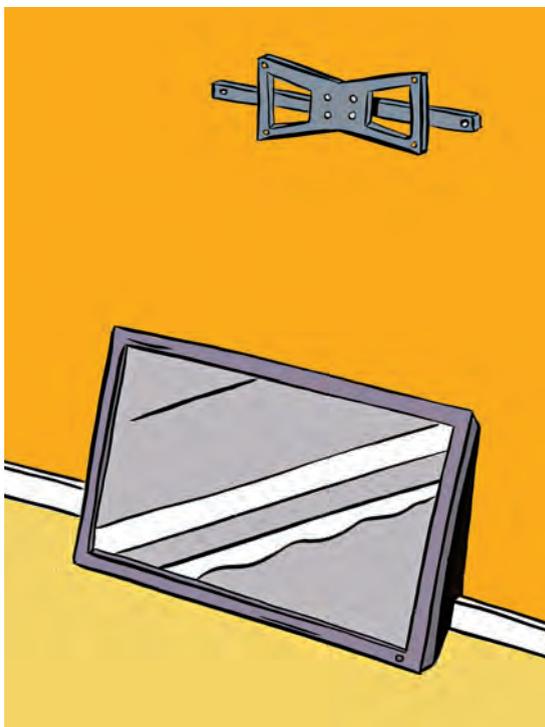
Cell-Phone Replacement Insurance Many consumers have no idea that credit cards can help cover the cost of a new cell phone if one is damaged or stolen. For that insurance, though, you need to pay your monthly cell-phone bill with a qualifying

credit card. A Wells Fargo credit card, for instance, will give you up to \$600 worth of protection. In case of theft, you'll have to file a police report or other paperwork to prove that your phone is gone. And loss isn't included, so if you left your phone in a taxi, you're out of luck.

More Time to Return Items What happens if you want to return an item but the retailer will no longer accept it? American Express and Discover provide a return extension benefit. In the case of American Express, that usually lengthens the return period to 90 days from the date of purchase for items worth up to \$300. You can return up to a maximum of \$1,000 worth of goods per cardholder account each year. You'll have to keep your receipts, and you'll find that the extended return policy doesn't apply to some kinds of products, such as computer software.

Extended Warranties We don't think you should pay for an extended warranty (most consumers never use the benefits), but we're happy if you can get one free. You're covered if you make a purchase using a credit card from any of the major companies (although Visa doesn't offer the perk to all cardholders), provided the product comes with a manufacturer's warranty. There can also be differences in coverage, such as the length of the extended warranty—usually up to one year—and whether refurbished items and wear and tear are covered.

Getting Cash If you're caught short, you don't have to head to an ATM. Discover's Cash-Over program lets you add a dollar amount—up to \$120 per 24 hours—to your purchase and pocket the difference. There are no fees because the withdrawal isn't considered a cash advance. The service is available only in certain stores. And if you don't pay your bill in full, your cash withdrawal will be subject to the interest rates you're paying on your balance.



ASK OUR EXPERTS

Will an Old Mount Fit a New TV?

Q. I have a plasma big-screen TV on a mount that can be pulled out from the wall and angled. If I replace my old TV, will its wall mount be compatible with a new one? Is there a universal standard for hook-up attachments?

—David Sawyer, Wilmington, NC

A. Most new TVs are VESA-compliant, that is, they meet guidelines set by the Video Electronics Standards Association. That means they conform to standards for features like the mounting holes on the back. (A VESA 75x75 means that the holes are 75 millimeters apart horizontally and 75 millimeters apart vertically.) Once you remove the old TV, measure the distances between the holes. Then check the manuals for new TVs for the VESA standard to see whether the old mount is compatible. If it's not (or if the new set is a lot heavier), you'll probably need a new mount.

→ **WE HAVE MORE THAN 140 EXPERTS ON CALL** They research, test, and compare—so you don't have to! Share your toughest questions at ConsumerReports.org/askourexperts ... and watch this space for the answers.

Should I Peel All of My Fruits and Vegetables?

Q. In “Eat the Peach, Not the Pesticide” (May 2015), you say that pesticide residue is measured “after produce has been rinsed in cold running water and/or inedible peels and rinds are removed.” What about fruits and vegetables that can be peeled but often aren't, such as apples, carrots, and peaches? Will peeling them lower the pesticide risk?

—Carol George, Chapel Hill, NC

A. Peeling foods with edible skins will probably remove additional pesticide residue, but not all. (Some pesticides are systemic, meaning they're absorbed through the plant's root system into the flesh and can't be washed off.) We don't recommend peeling the skin because it contains antioxidants, fiber, and other nutrients. Instead, wash produce under running water, gently rubbing items with soft skins. For harder produce, use a vegetable brush to remove dirt and residue.

Can I Correct an Error on My Credit Report?

Q. I've been reviewing my free credit reports from Equifax, Experian, and TransUnion. All three have errors in my previous address information. How important—and how easy—is it to correct that information?

—Paul Forde, Trussville, AL

A. If information on your credit reports is incorrect, your file could have been combined with that of a person living at the wrong address listed, and you may have to pay a higher rate for credit cards and loans, or you may be



denied credit altogether. Or worse, an error could signal fraudulent activity.

Technically speaking, credit-reporting agencies and the people and organizations that provide information about you to them should correct your report. The Federal Trade Commission suggests that you send notification of the discrepancy, in writing, to the agencies along with supporting information, such as an old bill that shows your correct former address. (See a sample letter at consumer.ftc.gov/articles/0384-sample-letter-disputing-errors-your-credit-report.) The agencies must investigate your request, usually within 30 days, then give you the results as well as a free copy of your report if the dispute results in a change. If you don't receive the info by then, you can file a complaint at consumerfinance.gov/complaint.



How Often Should I Replace Brake Fluid?

Q. Some mechanics say that replacing brake fluid every three years will keep the braking system in top condition. It doesn't mention that in my manual. What's your take?

—Dale Mettee, Westminster, MD

A. Our recommendation is to follow the instructions in your owner's manual. Many dealers offer to replace brake fluid as an extra service, but it's not really necessary unless the fluid is dirty. But you should top it off if you see that the level is dropping. That will prevent air bubbles, which can reduce a pedal's responsiveness.

The UPDATE

TREATMENTS TO TURN BACK TIME?

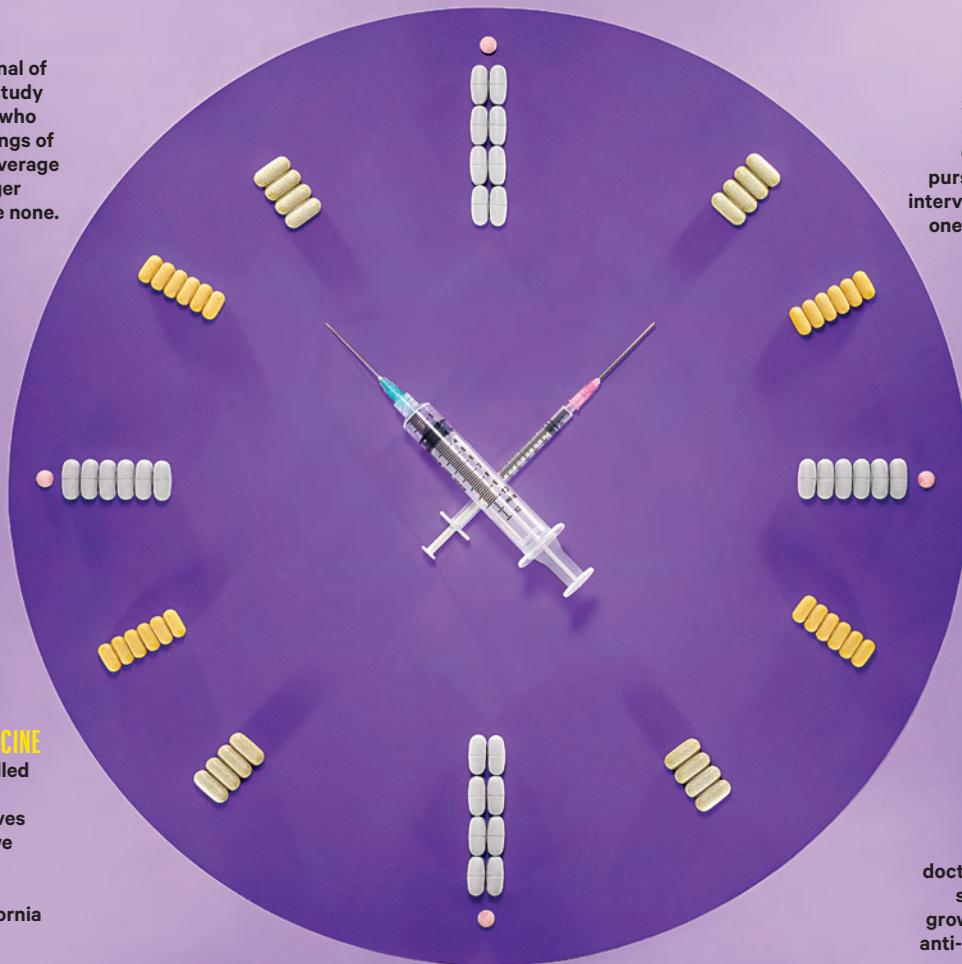
Consumers eager to defy aging fuel a global industry worth about \$292 billion. Still, the potential risks of many therapies should overshadow promises of youth restored. Learn more on page 16.

PEAS, NOT PILLS

An American Journal of Clinical Nutrition study found that people who ate five daily servings of produce lived an average of three years longer than those who ate none.

MONEY TRAIL

Sixty percent of Americans ages 65 and older are pursuing anti-aging interventions, reports one industry group.



MINDFULNESS MEDICINE

Safer than a so-called “smart drug,” meditation preserves brain neurons as we age, according to research from the University of California at Los Angeles.

A SHOT TO SKIP

It’s illegal for doctors to prescribe synthetic human growth hormone for anti-aging purposes.

NO MAGIC BULLET

“Hormone therapy can slow bone loss but is not approved for preventing aging,” says Margery Gass, M.D., executive director of the North American Menopause Society.

Anti-Aging Treatment Claims: The Promises vs. the Science

If you've ever thought the possibility of reclaiming the mind, body, and energy of your younger self was too good to be true, you could be right.

THE WATER of the mythical Fountain of Youth was, quite possibly, the first potion said to supply longer life and lasting vigor. But it certainly wasn't the last, and today, a staggering number of over-the-counter and prescription products are claimed to add years of optimum health. That has created a big and booming anti-aging business reportedly worth about \$292 billion worldwide this year.

"There is a large market in the anti-aging industry trying to convince people that aging is their fault, and that if they don't start taking hormones and supplements, they may fall prey to diseases associated with growing older," says S. Jay Olshansky, Ph.D., a professor of public health at the University of Illinois at Chicago. "They are saying they have the solutions and are willing to sell them to you."

But is there ever a good reason to buy? Here, we look at the science behind six treatments said to turn back the clock:

THE PROMISE: BOOST BRAINPOWER

A slew of supplements and prescription drugs are offered as a way to improve your attention, cognition, and focus.

The Potions: One group, dubbed nootropics, includes dietary supplements containing such ingredients as caffeine, fish oil, and herbs, as well as piracetam, a drug sometimes prescribed in the U.K. for movement disorders. The other main group includes prescription-only stimulants for ADHD, the Alzheimer's drug donepezil, and the narcolepsy and sleep-apnea drug modafinil. Doctors can legally prescribe those drugs for off-label use, or one not approved by the Food and Drug Administration. (They can't prescribe piracetam.)

The Science: There's little evidence that nootropics improve cognition. Some supplements in that category may cause side effects or interact with medicine you're already taking. Buy a product that's

not verified by a group such as the U.S. Pharmacopeia and you risk taking something that's not what the label advertises. "There can be tremendous variability among manufacturers," says Gary W. Small, M.D., director of the UCLA Longevity Center.

Prescription drugs don't help enhance cognition in everyone and might worsen it in some, according to the American Academy of Neurology. There are no long-term studies on how the drugs might affect healthy people, says Orly Avitzur, M.D., a neurologist and medical adviser to Consumer Reports.

THE PROMISE: REVIVE YOUR SEX LIFE

Advertisements claim that testosterone therapy might ease the lethargy and restore the lost libido that might accompany low levels of the hormone in men. Combating a condition that the ads refer to as "low T," it is suggested,

will boost your sex drive and help you reclaim energy.

The Potions: Prescription testosterone treatments are FDA-approved, but only for men with hypogonadism, a failure to produce enough testosterone due to disorders of the testicles, pituitary gland, or brain. Still, the therapy, which usually comes in such forms as topical gels and patches, can be prescribed off-label.

The Science: "There never was such a thing as 'low T' until the late 1990s, early 2000s," says Thomas T. Perls, M.D., M.P.H., a professor of medicine at the Boston University School of Medicine and Boston Medical Center. That's when the term came into vogue and consumers started seeing ads for testosterone therapy.

However, testosterone therapy can increase risks for heart attacks, strokes, and blood clots. Research also suggests that the treatment might encourage the growth of existing prostate cancer, boost the likelihood of sleep apnea, and cause the enlargement of the prostate, the growth of breast tissue, swollen feet, and a lower sperm count. If you have low energy or libido, see a doctor. The culprit might actually be stress, medications, depression, diabetes, obesity, or too little sleep or exercise.



THE PROMISE: GET STRONG AND LEAN

Human growth hormone (HGH) is promoted by those in the anti-aging arena as a way to increase muscle mass, reduce body fat, make skin more elastic, and slow bone loss.

The Potions: Injections of the synthetic version of HGH are now notorious for abuse by pro athletes and bodybuilders.

The Science: Pituitary-derived human growth hormone, which helps maintain tissues and organs, is essential for development in children and teens. Therapy with HGH is FDA-approved only for a few conditions in adults, including growth-hormone deficiency caused by pituitary damage. It's illegal for doctors to prescribe or distribute HGH for anti-aging. The drug can cause a slew of potential side effects, including carpal tunnel syndrome, swelling, joint pain, enlargement of the heart and liver, and type 2 diabetes. It may also increase cancer risk. Far from slowing the clock, "there's plenty of evidence it accelerates aging," Perls says. "Risks outweigh whatever little—if any—benefit there is."

THE PROMISE: LOOK AND FEEL YOUNGER

Prescription hormone therapy (HT) is generally considered a reasonable short-term solution for severe hot flashes and other symptoms of menopause, but some books and websites push long-term hormone replacement to help women look and feel younger longer. What they recommend are bioidentical hormones—said to be chemically the same as hormones the body produces—that are customized for a woman's theoretical needs.

The Potions: Those prescription products are compounded, or made in pharmacies. They contain types and levels of hormones that a doctor specifies.

The Science: Some bioidentical hormones are FDA-approved for use in HT. But compounded bioidentical hormones aren't, so there's no guarantee they contain safe levels or the right ingredients. You should avoid them, says Margery Gass, M.D., executive director of the North American Menopause Society. "These preparations have variable purity and potency," she says. "Both underdosage and overdosage are possible." Like traditional HT, they can increase the likelihood of blood clots, breast cancer, heart disease, and stroke, risks that

grow with long-term use. The safety and effectiveness of estriol, a type of estrogen found in some compounded formulations, are unconfirmed.

THE PROMISE: ENERGY AND VITALITY

A long list of supplements are said to stave off one or more aspects of aging as well as to boost mood, enhance sexual functioning, and increase energy.

The Potions: Several of the more widely sold supplements in this area include the hormone DHEA, which, at least in theory, can modestly raise testosterone and estrogen; coenzyme Q10 (CoQ10), a vitamin-like substance that helps provide energy to cells; and melatonin, a sleep-regulating hormone.

The Science: There's little evidence that any supplements have anti-aging properties. And as with all dietary supplements, you can't be sure that what's listed on the label is what's in the product. The ones mentioned above can interact with medications. (Warnings about side effects and safety aren't generally required to be on the label, as with over-the-counter and prescription drugs.) For instance, melatonin, which can interact with blood pressure drugs, diabetes drugs, and blood thinners, was responsible for more calls to poison-control centers in 2013 than any other supplement. "The belief that these are benign and couldn't hurt, coupled with the false promises of health benefits, result in a \$30 billion or \$40 billion industry of snake oil," says David S. Seres, M.D.,

director of medical nutrition for Columbia University's Institute of Human Nutrition and a member of Consumer Reports' medical advisory board.

Also be wary of adrenal supplements, purported to help with "adrenal fatigue," a claim and condition our experts call nonsense. "A lot of people who are making money off these are charlatans," says Mark E. Molitch, M.D., a professor of endocrinology at the Northwestern University Feinberg School of Medicine in Chicago. Taking the supplements, which cost \$25 to \$55 for a one-month supply, is chancy, he adds, because they could cause your adrenal glands to stop working.

THE PROMISE: MAXIMIZE HEALTH

Proponents say that sending higher than recommended levels of vitamins and minerals directly into the bloodstream—a hot trend among celebrities—can enhance immunity, detoxify the body, and even fight infection. One center says it can "kick-start those cells which are performing below par."

The Potions: Vitamin and mineral cocktails that are given intravenously.

The Science: Nutrient infusions won't do anything but empty your wallet—and they might harm you. "There is no data to support the usefulness or safety of these practices," Seres says. "Most vitamins, especially in high doses, have a degree of toxicity." And they're pricey: We found practices charging \$75 to about \$150 for one infusion.

Paging Dr. Youthful

About 26,000 physicians and scientists around the world are members of the anti-aging movement's professional society, the American Academy of Anti-Aging Medicine, also known as A4M. The organization offers board certification in anti-aging medicine, such as through its American Board of Anti-Aging/Regenerative Medicine.

But the American Board of Medical Specialties, which is widely considered to offer the gold standard in board certification, does not recognize anti-aging as a specialty, an omission that "greatly

detracts from A4M's credibility," says Marvin M. Lipman, M.D., chief medical adviser to Consumer Reports. That, in turn, reflects poorly on A4M's membership, he adds.

The bottom line, according to Lipman, is that for now, any claim that a particular product or treatment can stop or slow down the aging process simply doesn't have the science to back it up. "There is as yet no evidence-based substance shown to extend life," Lipman explains. "Diet, exercise, and good genes are the best we can offer."

Making Sense of Smartwatches

Apple's ballyhooed wrist piece isn't the only game in town

YOU PROBABLY DON'T really need a smartwatch. And admit it, many of those bulky devices have all the visual appeal of a pocket protector.

Happily, some newer models are surprisingly stylish, with elegant bands and high-end materials. And if you spend a lot of time texting, tweeting, and checking the news on the go, a smartwatch can keep you informed without making you fumble for your phone. Messages, calls, and appointments alert you with a buzz and show up on your smartwatch's display. But you might have to squint—smartwatch screens are usually 2 inches or smaller. You also get the time (of course) along with weather, sports scores, tweets, and other useful (and not-so-useful) information.

These wrist-top computers get most of their info via a Bluetooth connection to your

smartphone. But smartwatches can be pretty smart on their own. They often include heart-rate monitors and accelerometers to track your activity, or remind you when it's time to stand up and stretch. Some, such as the Apple Watch and Samsung Gear S, can accept or reject phone calls and let you hold a conversation right on the watch. The Apple Watch has Apple Pay, which lets you check out with a tap at the register.

What We Put Them Through

In our labs, Consumer Reports' testers assessed how easy it was to access core functions and perform key tasks involving messages, the calendar, and app notifications, as well as phone pairing. We judged display readability under various lighting conditions.

We also tortured them a bit, testing the faces' scratch resistance by using picks calibrated to the Mohs hardness scale. Water resistance was tested by dunking the devices in a pressurized water chamber. And our testers paced around the halls to test the pedometers.



Apple Watch Sport

TOP PICKS

BEST FOR IPHONE LOVERS

- 1 Apple Watch (38mm) \$550
- 2 Apple Watch (42mm) \$600
- 4 Apple Watch Sport (38mm) \$350
- 5 Apple Watch Sport (42mm) \$400

The Apple Watch is the most advanced and attractive smartwatch you can buy. Its capabilities range from fitness tracking and coaching to making phone calls (when paired to an iPhone). Its Digital Crown lets you quickly zoom in on a map or scroll through a list, and Siri handles searches and other tasks hands-free. The stainless-steel Watch's sapphire crystal face proved to be the hardest among our tested models. The display on the aluminum Apple Watch Sport was slightly less scratch-resistant.

BEST FOR ANDROID USERS

- 3 LG G Watch R \$200
- This model's round display could pass for analog, but its intuitive interface comes alive when you touch the screen. You can also control many of its features with voice commands. It has a built-in heart-rate monitor and an impressively accurate pedometer. But it's bulky. Its new cousin, the LG Watch Urbane, has a stylish metal case.

FOR FANS OF SIMPLICITY

- 6 Pebble Steel \$200
- This simple watch has a classy, stainless-steel finish and can survive a 164-foot plunge in water for at least 30 minutes, and its monochrome screen, though small, is very easy to read in bright light. Plus, it works with Android phones and iPhones.

Ratings: Smartwatches

Scores in context: Of the 11 models we tested, the highest scored 71; the lowest, 30. Price reflects the cost of the smartwatch with the least expensive band.

Recommended Excellent Very Good Good Fair Poor

Recommended	Rank	BRAND & MODEL	PRICE	SCORE	TEST RESULTS							
					Ease of Use	Ease of Interaction	Ease of Pairing	Readability in Bright Light	Readability in Low Light	Step-Count Accuracy	Scratch Test	Water-Resistance Test
<input checked="" type="checkbox"/>	1	Apple Watch (38mm)	\$550	71	⊖	⊕	⊕	○	⊕	⊕	⊕	⊕
<input checked="" type="checkbox"/>	2	Apple Watch (42mm)	\$600	71	⊖	⊕	⊕	○	⊕	⊕	⊕	⊕
<input checked="" type="checkbox"/>	3	LG G Watch R	\$200	69	⊖	⊕	○	○	⊕	⊕	⊖	⊖
<input checked="" type="checkbox"/>	4	Apple Watch Sport (38mm)	\$350	69	⊖	⊕	⊕	○	⊕	⊖	⊖	⊖
<input checked="" type="checkbox"/>	5	Apple Watch Sport (42mm)	\$400	69	⊖	⊕	⊕	○	⊕	⊕	⊕	⊖
	6	Pebble Steel	\$200	66	⊖	○	○	⊕	○	⊖	⊖	⊕
	7	Motorola Moto 360	\$250	65	⊖	⊕	○	○	⊕	⊖	○	⊖
	8	Asus ZenWatch	\$200	60	○	⊕	○	○	⊕	⊖	⊖	○
	9	Samsung Gear S	\$300	59	○	⊕	○	○	⊕	⊕	⊖	⊖
	10	Martian Notifier	\$130	45	⊖	○	○	○	○	○	⊖	⊖
	11	Sony SmartWatch 3	\$250	30	⊖	⊕	⊖	○	⊕	○	⊖	⊖

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THE RISE OF SUPERBUGS

Dangerous infections that are resistant to antibiotics are spreading and growing stronger, with dire consequences. Medical experts say it's a mess of our own making—and the clock is ticking on when and how we must solve it. The first in a three-part series.

THE NEXT TIME you're offered a prescription for antibiotics and ask yourself, "What harm could it do?" think about Peggy Lillis.

Five years ago, the 56-year-old kindergarten teacher from Brooklyn, N.Y., was given the antibiotic clindamycin, which was supposed to prevent a dental infection. Instead, the drug wiped out much of the "good" bacteria in her gut that normally keeps "bad" bacteria in check. Without that protection, harmful bacteria in her belly ran rampant, triggering an intestinal infection so severe that doctors had to perform emergency surgery to remove her colon. Despite that desperate, last-ditch effort, "within 10 days of taking those pills, my mother was dead," says Lillis' son, Christian.

Or consider Zachary Doubek, a rambunctious 12-year-old from New Brunswick, N.J. After a baseball game, Zachary came home complaining of knee pain that worsened overnight and quickly escalated. His doctor initially prescribed an antibiotic that failed to bring the problem under control. Zachary had the bad luck of running into a strain of bacteria that, after repeated exposure to antibiotics, had evolved, developing defenses against the drugs.

Zachary's infection raced through his body, forcing doctors to put him in a medically induced coma until they could rein it in with vancomycin, a powerful antibiotic that, luckily, still worked against the germ. Zachary survived, but a year and six surgeries later, he still walks with a limp from the ordeal. "We

may never know how he got infected," says his mother, Marnie Doubek, M.D., a family physician, "but we know that the antibiotic that should have first helped him didn't work."

Raising the Alarm

Peggy Lillis' and Zachary Doubek's stories are all too common. Though antibiotics have saved millions of lives since penicillin was first prescribed almost 75 years ago, it's now clear that unrestrained use of the drugs also has unexpected and dangerous consequences, sickening at least 2.25 million Americans each year and killing 37,000.

That harm comes in two main ways. First, as in Lillis' case, antibiotics can disrupt the body's natural balance of good and bad bacteria, which research

How Superbugs Spread Through the Community

Antibiotic-resistant bacteria can develop any time the drugs are used on farms, in hospitals, or in doctor's or dentist's offices.

Source: Adapted from the national Centers for Disease Control and Prevention report, "Antibiotic Resistance Threats in the United States, 2013," at cdc.gov/drugresistance/threat-report-2013.



shows is surprisingly important to human health. Lillis was killed by one such bad bug, the bacteria *C. difficile*. At least 250,000 people per year now develop *C. diff* infections linked to antibiotic use, and 14,000 die as a result.

Second, overuse of antibiotics breeds "superbugs"—bacteria that often can't be controlled even with multiple drugs. (See "From Bug to Superbug," on page 23.) Doubek was a victim of MRSA (methicillin-resistant staphylococcus aureus), a bacteria once confined to hospitals that has now spread into the community, including nail salons, locker rooms, and playgrounds—where Doubek may have picked up his infection. MRSA and other resistant bacteria infect at least 2 million people in the U.S. annually, killing at least 23,000.

As alarming as those numbers are,

experts say things could get much worse, and fast. The Centers for Disease Control and Prevention has sounded the alarm about two threats: CRE (carbapenem-resistant enterobacteriaceae), which—when it gets into the bloodstream—kills almost 50 percent of hospital patients who are infected; and shigella, a highly contagious bacteria that overseas travelers often bring home and that is now resistant to several common antibiotics, raising fears of an outbreak in the U.S.

The World Health Organization and the European Union call the rise of resistant bacteria one of the world's most serious health crises, putting us on the verge of a "post-antibiotic era." In June, President Obama convened a forum on the crisis at the White House attended by 150 organizations, including Consumer

Reports. And his 2016 proposed budget included \$1.2 billion for combatting resistant infections.

A New Approach to Antibiotics

"We have to act now to reverse this problem," says Thomas R. Frieden, M.D., director of the CDC. "If we lose the ability to treat infections, we lose the ability to safely do much of what we take for granted in modern medicine."

Part of the solution may come from developing new antibiotics. But experts say it's even more important that doctors, hospitals, and consumers develop a new attitude toward the drugs, learning when antibiotics should—and shouldn't—be used.

That applies even to how the drugs are used on farms: About 80 percent of the antibiotics in the U.S. are fed to

chickens, cows, and other food animals, mostly to speed their growth and to prevent disease.

Frieden and others say the problem, although complex, is fixable—if we act now. Here, what you need to know about antibiotic overuse and its consequences, and how to protect yourself and your family:

Miracle Drugs Gone Awry

“Antibiotics really are miracle drugs. Patients believe that. I believe that,” says Lauri Hicks, D.O., head of the CDC’s program Get Smart: Know When Antibiotics Work.

Ask anyone who has had a brush with bacterial meningitis. About 85 percent of people treated with antibiotics for that infection survive; without the drugs, almost all die. In fact, many of the advances of modern medicine—organ transplants, invasive surgery, cancer therapy, among others—depend on antibiotics. For example, without the drugs up to 40 percent of people undergoing total hip-replacement would develop an infection and almost one-third of those would die.

But antibiotics have become a victim of their own success. “The drugs seemed so

effective that we started using them even in cases when they shouldn’t be,” Hicks says. Overall, in fact, the CDC estimates that up to half of all antibiotics used in this country are prescribed unnecessarily or used inappropriately.

The Many Forms of Misuse

Antibiotic misuse happens in many ways:

- **Using the drugs to treat illnesses caused by viruses, not bacteria.** Doctors know, of course, that antibiotics don’t work against viruses, like those that cause the common cold or the flu. But in some cases tests can’t help distinguish between the two. Or doctors may feel that they just don’t have the time to determine the cause, and figure “it’s better to be safe than sorry.” One recent study of 204 doctors suggested some physicians may be more likely to prescribe antibiotics for viral infections toward the end of their office hours—a sign they may be taking the easy route to handling patients’ complaints.
- **Prescribing the drugs just to satisfy patient demand.** Doctors may also just want to make their patients happy—and patients often want antibiotics. For example, in a recent Consumer Reports poll of 1,000 adults, one in five people who got an antibiotic had asked for the drug. “I often have patients who ask for antibiotics,” says Marnie Doubek, who sees many sick children in her practice. “So I understand the pressure to just say OK. But now, especially with Zachary’s experience, no way.”
- **Rushing to drugs too quickly.** Even when infections are caused by bacteria, doctors sometimes prescribe antibiotics when it might be wise to wait a few days to see whether mild symptoms clear up on their own. One example: ear infections in children older than 6 months. When mild, those infections often improve untreated. But as many parents know, a crying child can be a powerful motivator to seek a quick fix even if, in the long run, repeated use of antibiotics may be more likely to cause problems than solve them.
- **Abusing broad-spectrum drugs.** When antibiotics are called for, doctors often reach too quickly for “broad



Kids Are at Risk, Too

Zachary Doubek and his mother, Marnie, in the park near his home in New Brunswick, N.J., where the 12-year-old boy may have been exposed to MRSA. That bacteria, which is resistant to several antibiotics, can lead to a range of illnesses, including skin infections and pneumonia—and almost killed Zachary. MRSA infections have now been traced to sports equipment and schools, gyms, locker rooms, and day-care centers.

spectrum” ones that attack multiple bacteria types at once. That shotgun approach is not only more likely to breed resistance but also to wipe out protective bacteria. The drug that triggered Lillis’ C. diff infection, clindamycin, is one such drug.

Those drugs were developed with the thought that “killing as many bugs as you possibly can in every patient” was a good idea, says John Powers, M.D., former lead medical officer of Antimicrobial Drug Development and Resistance Initiatives at the Food and Drug Administration.

Doctors loved the broad-spectrum antibiotics and, spurred by aggressive marketing from drug companies, began using them for common problems such as ear and sinus infections. Given that widespread use, “it’s hardly a shock that we now have a problem with resistance and C. diff,” Powers says.

The Quest for New Drugs

Many of those broad-spectrum drugs were introduced 30 years ago, when antibiotic development was in its heyday. More than 50 antibiotics were introduced in the 1980s and 1990s. But that once-steady drug pipeline has slowed to a trickle, for several reasons.

One is that coming up with new classes of antibiotics that target superbugs is

FROM BUG TO SUPERBUG: HOW BACTERIA ARMOR UP

“We all have bacteria living in and on our bodies,” says Lauri Hicks, D.O., of the Centers for Disease Control and Prevention. When we take an antibiotic, some bacteria survive—and evolve—so that the next time they encounter that drug, it might not work against them. “It’s a matter of survival,” Hicks says.

Every time we develop a new antibiotic, bacteria evolve to shrug it off. “The ability of bacteria to adapt allows them to become resistant very quickly,” says Jeffrey S. Gerber, M.D., an infectious disease expert at the Children’s Hospital of Philadelphia. “Bacteria have found a way to become resistant to every antibiotic man has made,” he adds.

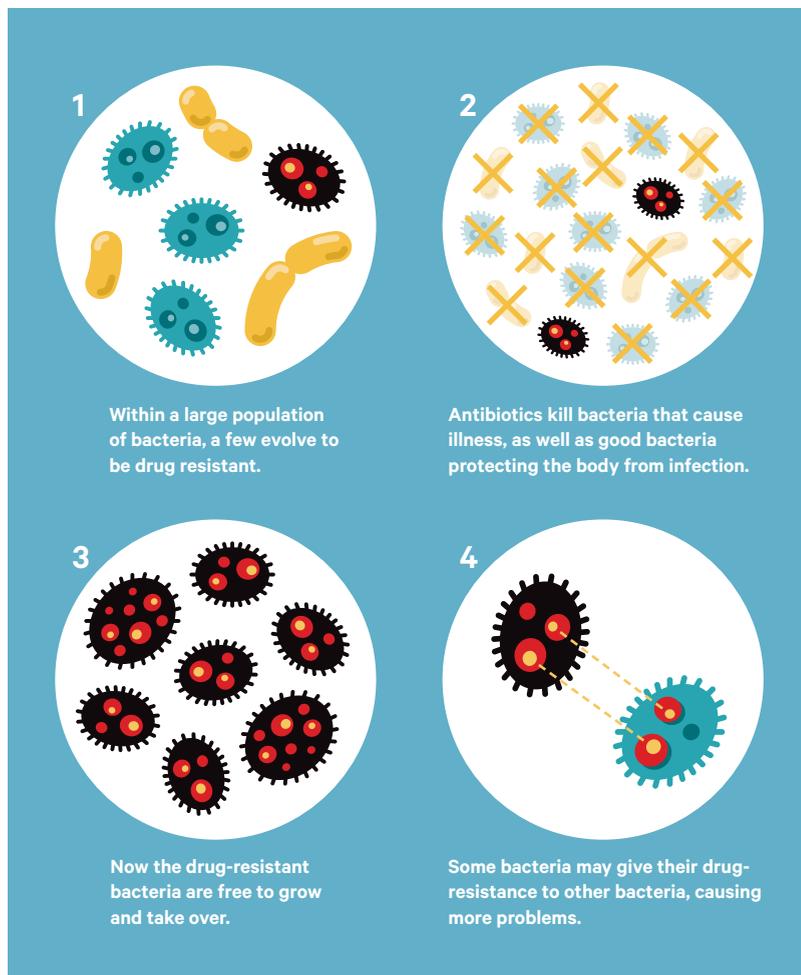
The new, resistant bacteria may not make you sick right away but could lead

to a future infection that is more difficult for doctors to treat.

And you can spread the bacteria to surfaces you touch or to people you shake hands with, kiss, or hug. So you can pass the bacteria on to friends, family members, co-workers, and others, spreading those bugs throughout your community even if you never get sick yourself.

As the bacteria circulate, they can become resistant to multiple antibiotics. Several of those “superbugs” have developed the ability to fend off all or almost all of the drugs we have.

“Entire intensive care units have had to be shut down because of these superbugs,” Gerber says. As a result, “people are dying of infections that we have zero antibiotics left to treat.”



ACT

Share your infection story.

Go to [SafePatientProject.org/share-your-story](https://www.safepatientproject.org/share-your-story).

Learn when antibiotics are, and aren't, needed. Go to [ConsumerHealthChoices.org/antibiotics](https://www.consumerhealthchoices.org/antibiotics).

Help stop the use of antibiotics in healthy food animals. Go to [NotInMyFood.org](https://www.notinmyfood.org).

Read our complete coverage of America's Antibiotic Crisis. Go to [ConsumerReports.org/superbugs](https://www.consumerreports.org/superbugs).

Follow [@ConsumerReports](https://twitter.com/ConsumerReports) on Twitter and Facebook, and help us stop the spread of superbugs. [#SlamSuperbugs](https://twitter.com/SlamSuperbugs).

proving to be a tough scientific puzzle. Most of the new antibiotics introduced since 2000 have been minor tweaks to existing drugs, not major breakthroughs.

The other big reason? Money. "Developing antibiotics is not that profitable," says Henry Chambers, M.D., an infectious disease specialist at the University of California San Francisco School of Medicine. Drug companies would rather focus on medications that many people take for a long time, he explains, because the market, and profit potential, is larger.

The government is trying to sweeten the economic incentive. In 2012, the FDA began to fast-track certain antibiotics and told drugmakers that patent protection on the drugs would last an additional five years. Since then, 49 new drugs have entered the pipeline's fast lane and six have been approved.

The FDA has proposed further streamlining—allowing companies to test drugs using smaller, shorter, or fewer studies—for antibiotics that are meant to treat serious infections in patients with no other options. Legislation now with Congress would also lower the require-

ments needed to get new antibiotics on the market.

The Danger of 'Fast Track' Drugs

That approach means the FDA "is willing to accept less safety and efficacy data," acknowledges Edward Cox, M.D., director of the Office of Antimicrobial Products in the FDA's Center for Drug Evaluation and Research. But he says that's a trade-off

that many doctors are willing to make.

Still, some researchers and patient advocates worry about fast-tracking drugs. "We absolutely need new antibiotics," says Lisa McGiffert, director of Consumer Reports' Safe Patient Project. "But that doesn't justify lowering the bar on the standards for drug approval. These can be dangerous drugs, so they should be thoroughly tested for safety and efficacy

Avoid Germs at the Gym

About 2 out of every 100 Americans carry potentially deadly MRSA bacteria on their bodies. Athletes, particularly those involved in contact sports, are even more likely to harbor the bacteria—in part because players share the bug when they come in contact with each other. In addition, MRSA can live for days on exercise

equipment, benches, and mats in gyms and locker rooms. So take these steps to protect yourself when working out in a gym:

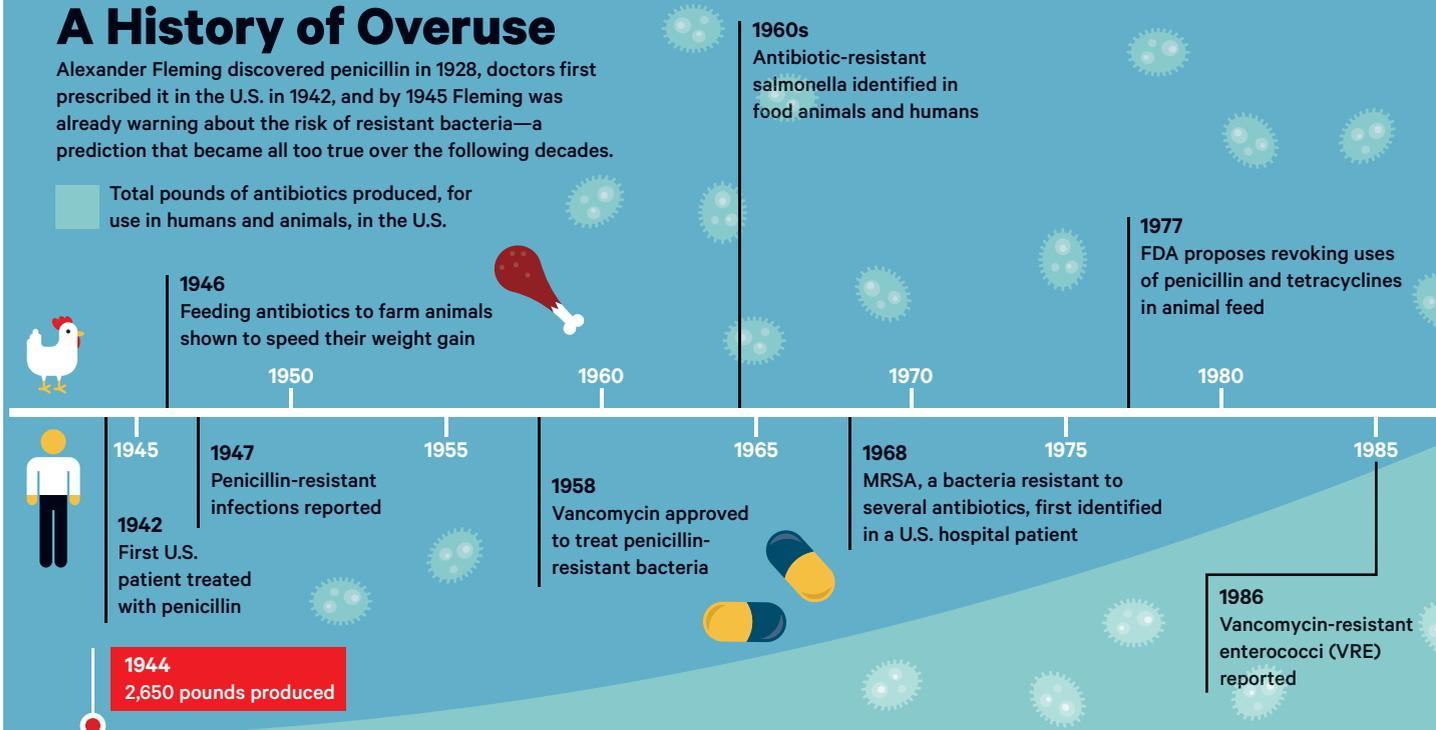
- Wash your hands with soap and water before and after you work out. If that's not available, use an alcohol-based hand sanitizer.
- Wipe down equipment with alcohol-based sprays or wipes.

- Place a barrier such as clothes or a clean towel between your skin and exercise equipment, benches, and mats.
- Keep cuts and scrapes clean and bandaged until healed.
- Shower immediately after you exercise.
- Never share personal items that touch bare skin, including towels, mats, bar soap, and razors.

A History of Overuse

Alexander Fleming discovered penicillin in 1928, doctors first prescribed it in the U.S. in 1942, and by 1945 Fleming was already warning about the risk of resistant bacteria—a prediction that became all too true over the following decades.

Total pounds of antibiotics produced, for use in humans and animals, in the U.S.



Sources: 1944 to 1994, data from the National Academy of Sciences with additional figures from the U.S. International Trade Commission. Because no similar data were collected post-1994,

before we unleash them on the public.”

Perhaps the biggest concern is that even if effective new antibiotics make it to market, they may not provide much long-term help if health care professionals and patients continue to misuse the drugs. And, Chambers says, there may be pressure on doctors to use the drugs widely, despite the growing threat of antibiotic resistance.

Some pressure may come from drug companies, which have a history of marketing new drugs aggressively, and even illegally. Pfizer agreed to pay \$1 billion in 2009 to settle allegations that the company illegally promoted four drugs, including the antibiotic linezolid (Zyvox), which was pushed to treat forms of MRSA for which it was not approved.

The Real Antibiotic Solution

With education and a little prodding, doctors have shown that they can do better.

One study, in the *Journal of the American Medical Association*, found that doctors who attended a 1-hour session on guidelines for treating common upper-respiratory tract infections and then

received feedback on their prescribing habits, cut their use of broad-spectrum antibiotics almost in half. Inappropriate prescriptions for sinus infections and pneumonia were cut by 50 to 75 percent.

Several medical organizations, such as the American Academy of Family Physicians and the American Academy of Pediatrics, have distributed guidelines on appropriate antibiotic use to their members. In some cases, that advice is incorporated into electronic medical records, so doctors are alerted if they prescribe a drug inappropriately.

Still, patients play a key role, too, by helping to make sure those drugs are used only when necessary, and by avoiding infections in the first place. Here are a few guidelines to follow:

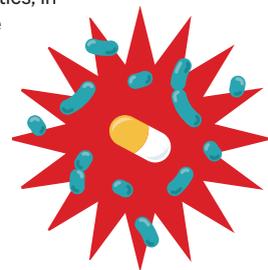
- **Don't push for antibiotics.** If your doctor says you don't have a bacterial infection, don't insist. Ask about other treatments that can help you feel better, such as a pain reliever, throat soother, antihistamine, or decongestant.
- **Ask whether you can fight it off on your own.** If bacteria are the cause but your symptoms are mild, ask about trying

6 Myths About Antibiotics

Myth #1. They can cure colds and the flu. Antibiotics work against only bacterial infections, not viral ones such as colds, the flu, most sore throats, and many sinus and ear infections.

Myth #2. They have few side effects.

Almost 1 in 5 emergency-room visits for drug side effects stems from antibiotics; in children, the drugs are the leading cause of such visits. Effects include diarrhea, yeast infections, and in rare cases, nerve damage, torn tendons, and allergic reactions that include rashes, swelling of the face or throat, and breathing problems. And the drugs can kill off good bacteria, increasing the risk of some infections.

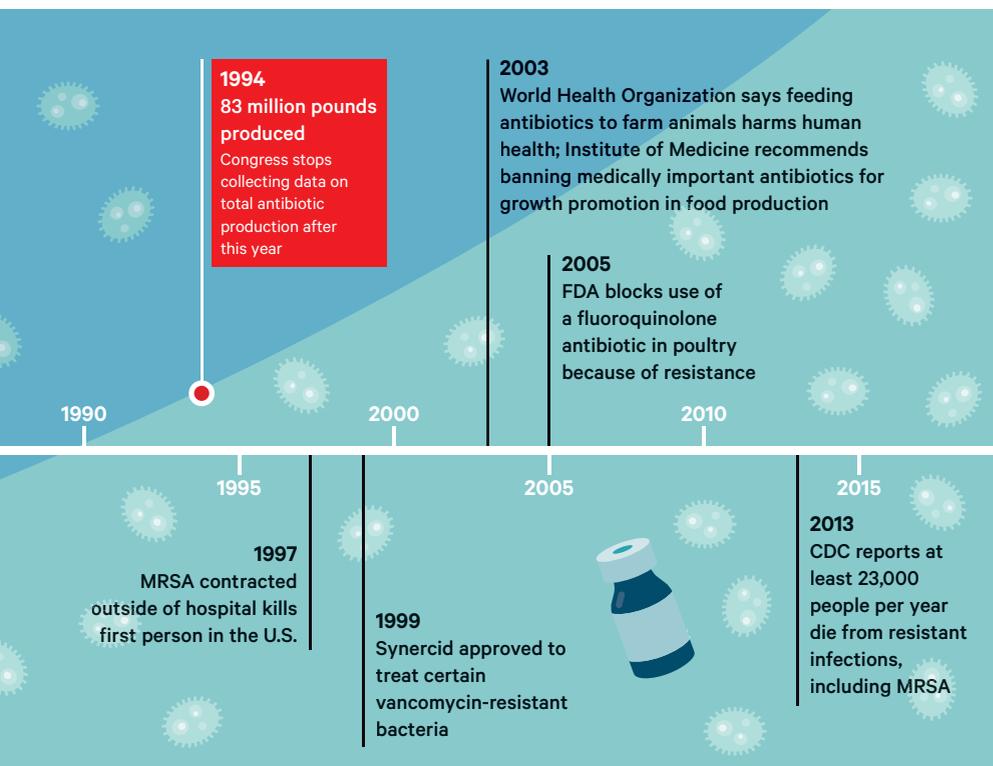


Myth #3. A 'full course' lasts at least a week. Not always. A shorter course can work for some infections, such as certain urinary tract, ear, and sinus infections. So ask your doctor for the shortest course of antibiotics necessary to treat your infection.

Myth #4. It's OK to take leftover medication. Nope. First, you may not need an antibiotic at all. And if you do, the leftovers may not be the right type or dose for your infection. Taking them could allow the growth of harmful bacteria. Return unused antibiotics to the pharmacy or mix them with coffee grounds or cat litter and toss in the trash.

Myth #5. All bacterial infections require drugs. Mild ones sometimes clear up on their own. So ask your doctor whether you could try waiting it out.

Myth #6. The more bacteria a drug kills, the better. Wrong. So-called broad-spectrum drugs, such as ceftriaxone, ciprofloxacin and levofloxacin, should be reserved for hard-to-treat infections.



Consumer Reports statisticians extrapolated antibiotic production between 1995 and 2015 based on prior years' data.

to fight off the infection without drugs.

- **Request targeted drugs.** When possible, your doctor should order cultures to identify the bacteria that caused your infection and prescribe a drug that targets that bug.
- **Use antibiotic creams sparingly.** Even antibiotics applied to the skin can lead to resistant bacteria. So use over-the-counter ointments containing bacitracin and neomycin only if dirt remains after cleaning with soap and water.
- **Avoid infections in the first place.** That means staying up to date on vaccinations. And it means washing your hands thoroughly and regularly, especially before preparing or eating food, before and after treating a cut or wound, and after using the bathroom, sneezing, coughing, and handling garbage. Plain soap and water is best. Avoid antibacterial hand soaps and cleaners, which may promote resistance.



One Family Takes Action

Christian Lillis (left) and his brother Liam outside their family home in Brooklyn, N.Y., with a picture of their mother Peggy. She died when an antibiotic prescribed after a routine root canal killed off “good” bacteria in her stomach, allowing a “bad” bacteria, *C. difficile*, to spread throughout her body. At least 250,000 people per year are sickened by *C. diff* infections linked to antibiotic use, and 14,000 die. The family responded to the tragedy by creating the Peggy Lillis Memorial Foundation (peggyfoundation.org).

WHEN TO SAY NO TO A PRESCRIPTION

An April 2015 Consumer Reports survey of 1,000 adults found that patients are often prescribed antibiotics when the drugs aren't necessary, such as for colds, the flu, many sinus infections, and before certain dental or medical procedures. Several major medical organizations, including the American Academy of Family Physicians and the American Academy of Pediatrics, have recently tried to correct the problem by identifying conditions for which antibiotics are often misused and explaining when the drugs are, and aren't, needed:

EAR INFECTIONS Most ear infections improve on their own in two to three days even without drugs, especially in children 2 or older.

When to consider antibiotics The drugs may be needed right away for babies 6 months or younger with ear pain, children from 6 months to 2 years old with moderate to severe ear pain, and children 2 or older with severe symptoms.

ECZEMA Antibiotics don't help relieve skin from itching or redness. Instead, moisturize skin or ask your doctor to recommend a medicated cream or ointment.

When to consider antibiotics If there are

signs of a bacterial infection, such as bumps or sores full of pus, honey-colored crusting, very red or warm skin, and fever.

EYE INFECTIONS Doctors often prescribe antibiotic eyedrops after treating eye diseases, such as macular degeneration, with injections. But antibiotic drops are rarely necessary after such treatments and can irritate your eyes.

When to consider antibiotics If you have a bacterial eye infection, marked by redness, swelling, tearing, pus, and vision loss.

PINKEYE Conjunctivitis usually stems from a virus or an allergy, not bacteria. Even when bacteria are responsible, pinkeye usually goes away by itself within 10 days.

When to consider antibiotics If you have bacterial pinkeye plus a weak immune system, or severe or persistent symptoms.

RESPIRATORY INFECTIONS Colds, flu, and most coughs and cases of bronchitis are caused by viruses. Strep throat is bacterial, but only about one-third of sore throats in children are due to strep. If you suspect strep, get tested to find out for sure.

When to consider antibiotics If a cough lasts

longer than 14 days or a doctor diagnoses a bacterial illness such as strep.

SINUS INFECTIONS Sinusitis is usually viral. And even when bacteria are the cause, the infections often clear up even if they are not treated in a week or so.

When to consider antibiotics If symptoms are severe, don't improve after 10 days, or get better but then worsen.

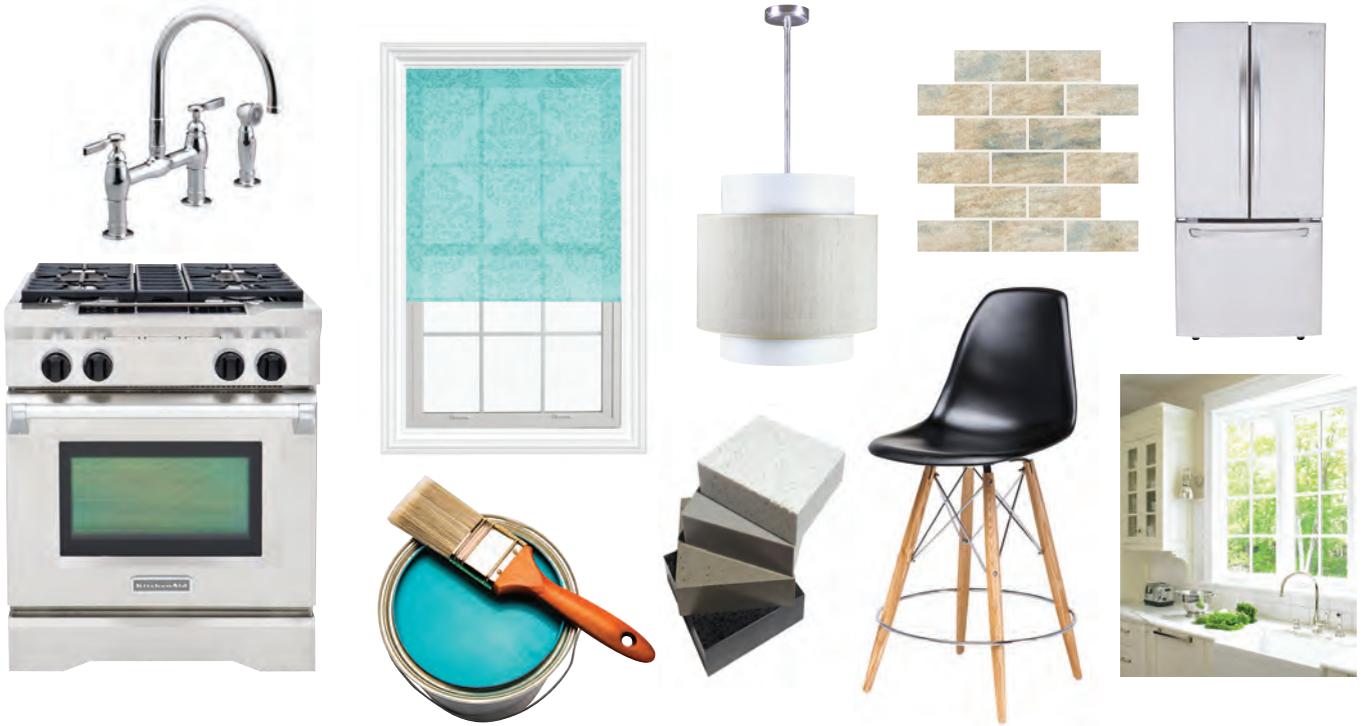
SWIMMER'S EAR Caused by water trapped in the ear canal, over-the-counter eardrops usually help as much as antibiotics, without the risk of those drugs and without causing resistance.

When to consider antibiotics If you have a hole or tube in your eardrum, check with your doctor. In that case, certain antibiotic eardrops are a better choice. Oral antibiotics may be necessary if a bacterial infection spreads beyond the ear or you have other conditions, such as diabetes, that increase the risk of complications.

URINARY TRACT INFECTIONS IN OLDER PEOPLE Doctors often prescribe antibiotics when a routine test finds bacteria in the urine. But if they don't have symptoms, the drugs won't help.

When to consider antibiotics Before certain surgeries or when you experience burning during urination and a strong urge to “go” often.





Create the Perfect Kitchen for You

Dream it. Design it. Buy it. Our 21-page planner will guide you through every step of your remodel.

WHAT MAKES SOME kitchens a joy to be in, whether you're the one cooking or a guest perched at the island? And why do other kitchens fall short even when they clearly cost a lot? Every kitchen is unique, but the best ones share certain key elements whether they cost \$15,000 or \$150,000.

It all starts with a functional layout that will let you, family members, and guests move about easily. The trusty work triangle, connecting the range, sink, and refrigerator, works well in smaller kitchens. In larger ones, adding an island countertop creates more space for food prep and casual dining.

Another essential is ample, efficient storage designed around your specific needs. Look for ways to minimize the back and forth. Place the pantry near a convenient landing spot for groceries, or choose easy-access drawers instead of shelves.

Next decision: countertops and floors that match your lifestyle. They look great when new, but you want them to stand up to daily

life. Our Ratings include the hardest-wearing materials, as well as sinks and faucets that stand the test of time.

Your appliances should also address the way you live. Manufacturers have developed many innovations to make life easier in the kitchen: versatile double-oven ranges, speedy induction cooktops, and refrigerators with flexible storage.

Don't leave lighting to the end. A good plan will include task light in all the right places, as well as general illumination from recessed canisters or pendants.

To contain odors and prevent grease buildup, you'll need adequate ventilation. Range hoods are best at venting fumes and smoke; make sure yours is at least as wide as the cooking surface below. An over-the-range microwave is a space-saving option, but it won't clear the air as well.

The average American spends more than 12 hours per week in the kitchen. (For families, it's a lot more.) Plan properly, and your new kitchen will be a source of pride and pleasure for years to come.



PIN

Planning your own kitchen remodel? Follow us on Pinterest to keep up with the latest in inspiring tips, tools, and design.

[pinterest.com/consumerreports](https://www.pinterest.com/consumerreports)

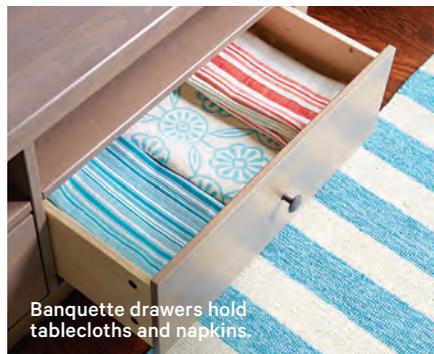
STEP
1

Make a Plan

Get exactly what you want without breaking the bank

Adrian Forman's last kitchen had professional appliances, a marble floor, and a tile backsplash. But when the recently divorced mother of two moved to a smaller home in Hastings-on-Hudson, N.Y., her idea of a dream kitchen started over, too. "I left that behind," says the Texas native, a writer. "My goal was

to create a functional, comfortable kitchen. I want people to spend time here." Forman's original budget was \$25,000 (though she spent a bit more than that before she was done), which is about the national average for a kitchen remodel. Here's how she made her dream a reality.



Banquette drawers hold tablecloths and napkins.



Forman's simple flatware storage method.



An integrated panel hides the dishwasher.

A Neutral Palette

“White appliances would have been too much white. Black is too heavy. Stainless was the perfect midpoint, and the tin backsplash helps tie it all together. The cabinets and counters are like the wrapping paper, and the appliances and backsplash are the bow on top.”

Maximizing Space

“The refrigerator is on your right as soon as you enter the kitchen, so I wanted cabinet-depth even though it meant spending a bit extra. I also had to have French doors as opposed to a fridge with one big door that swings open, cutting off the flow of the kitchen.”

Double-Duty

“Two ovens, one space—it’s such a smart design. I entertain constantly, and I like cooking big meals. I’ll put a standing rib roast in the lower oven and a kale-sweet potato casserole in the upper, while my homemade rolls bake in the toaster oven.”

Natural Fit

“Granite is durable and easy to take care of. I got a very high-end piece for an exceptional price because I paid cash and was willing to accept a few imperfections.

Bonus: The supplier threw in the sink for free because I paid cash.”

The Right Light

“Putting in LED undercabinet task lighting was one of my best decisions. I can see! There are no weird shadows, and I can use the whole counter when doing prep work.

The two glass ceiling fixtures have specialty incandescent bulbs that look great, but they don’t give off a lot of light.”

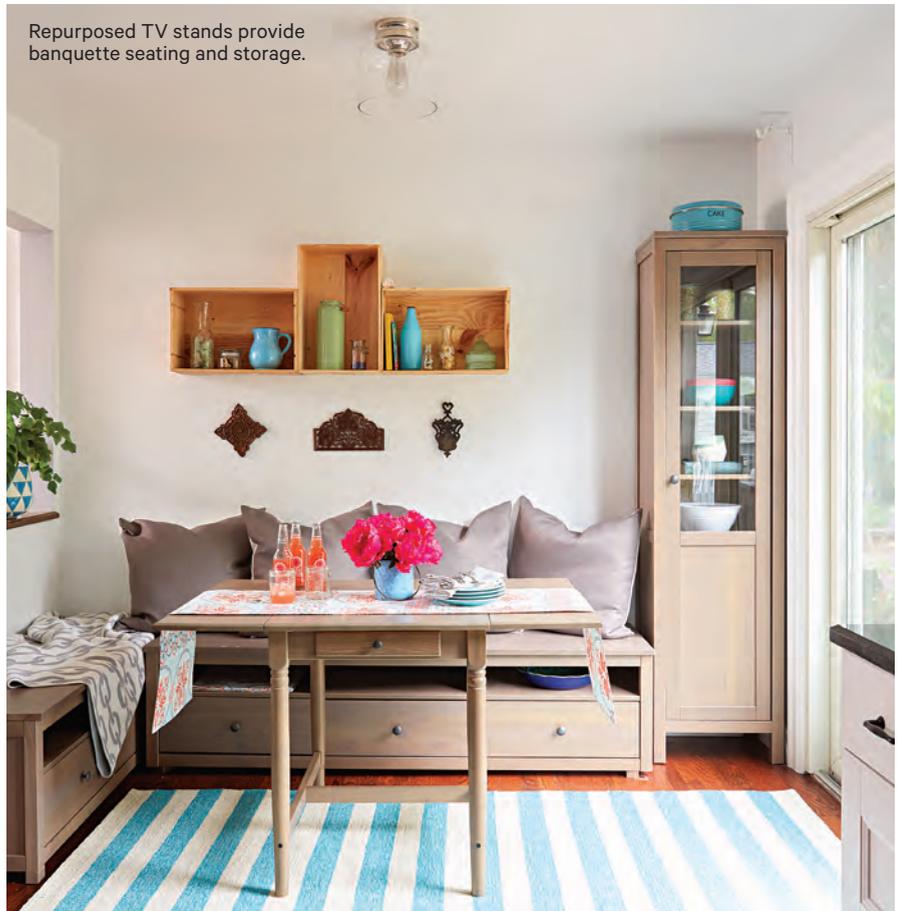
Under Foot

“I’ve had stone floors in the past, but I find them uncomfortable because I spend so much time on my feet. Wood is comfortable, plus I wanted continuity throughout the house. The wood floors on the first floor are all stained the same English walnut finish.”

A Cozy Corner

“I wanted an eat-in kitchen for the boys and me, and this sitting area creates a nice connection to the outdoors. When friends come over and I’m cooking, it’s a comfortable place for them to hang out and keep me company. The banquette’s built-in storage holds all my tablecloths and napkins.”

Repurposed TV stands provide banquette seating and storage.



Sliding doors offer easy access to the deck.

What It Cost

Adrian Forman went over budget, in part because she needed to replace her range and refrigerator. Experts suggest leaving at least a 10 to 15 percent cushion when planning.

Cabinets and hardware	\$4,165
Banquette seating, table, curio cabinet	\$690
Granite counters and installation (stainless sink included)	\$2,850
Faucet	\$316
Tin backsplash	\$312
Stainless double-oven gas range	\$1,973
Stainless French-door refrigerator, cabinet depth	\$3,000
Dishwasher with cabinet panel	\$660
Undercabinet LED task lighting	\$188
Two ceiling light fixtures	\$98
Paint and labor	\$230
Labor	\$15,000*
TOTAL	\$29,482

*Labor costs usually run higher in the Northeast.

The One-Stop Kitchen

What you get and what you give up by buying everything from one place. It's certainly easier than managing every detail of your own project, but is it better?

Going for a complete makeover? You'll probably save by sourcing your purchases from a number of sellers. But for sheer convenience, you can't beat buying everything—appliances, cabinets, counters, and flooring—in one location and paying a single party. These national retailers aim to make the kitchen design process easier than ever.

Project-length estimations are based on a 10x10-foot kitchen. That might seem small in the real world, but it's an industry standard that helps you compare prices. An in-home consultation, which is deducted from the project cost, includes a pro's measurements. All three offer installation, too, and guarantee the labor even when done by subcontractors.

Newcomers

If you want more personalized service and upscale offerings—and you're willing to pay more—consider Pirch and Waterworks, two high-end retailers.

Home Depot

The largest retailer—with more than 2,250 stores in North America—estimates that most kitchens take three to 10 weeks to remodel. Many store designers are certified by the National Kitchen and Bath Association. Routine training also makes use of NKBA courses. Software called My Kitchen Planner lets shoppers upload plans and share ideas with their designer. In-home measurements cost \$49 to \$99. The minimum for a full kitchen project is about \$25,000. You can request a specific designer over the phone or at a store, or you can use the website to schedule an appointment. Labor is guaranteed for a year.

Lowe's

The inventory doesn't quite match that of Home Depot, but there's still plenty to choose from. Both chains offer more online than in their stores. Lowe's estimates that most kitchen remodels take at least nine weeks. Designers at the 1,770 North American stores often have interior-design backgrounds and all receive training, including information on the latest trends. In-home measurements cost \$75. Lowe's says that the average job costs at least \$20,000. Each store usually has just one designer, so if your ideas don't click, you'll need to go elsewhere—maybe another Lowe's. Labor is guaranteed for a year.

Ikea

Ikea sells mostly its own branded products, so selection pales compared with the other home centers. But you might prefer the simplicity. On the plus side, everything they sell is on display in-store. Shoppers use Ikea's Home Planner software to add cabinets, countertops, and other items to a 3D plan of their space. In-store specialists can help; they're trained in design guidelines. In-home service, available if you live near an Ikea store, starts at \$199. A kitchen (without appliances) costs at least \$3,000 before labor and takes about seven weeks. Ikea uses outside installers but backs the labor for five years.

Pirch

With full-time chefs and other pros giving demos, Pirch encourages customers to linger in its eight expansive showrooms. The carefully trained technicians deliver and install products and perform long-term warranty work, making them the first—and only—ones to call if you have a problem. Though it doesn't employ designers, Pirch can help you find one. It doesn't keep in-store inventory but can get anything, even brands sold at home centers. Complete kitchens start at \$25,000—but that won't get you that 60-inch-wide \$16,000 La Cornue range in one of the kitchen displays.

WHAT IT SELLS

10 cabinet brands	\$50 to \$300 per linear foot
12 countertop brands	\$5 to more than \$150 per square foot
About 7,000 sinks	\$100 to \$400
More than 10,000 faucets	\$20 to more than \$200
412 fridges, 716 ranges, and 113 dishwashers	\$270 to \$8,550
Almost 40 brands of flooring	50 cents to \$6.20 per square foot

WHAT IT SELLS

5 cabinet brands	\$40 to \$300+ per linear foot
6 countertop brands	\$10 to more than \$90 per square foot
More than 4,000 sinks	\$60 to more than \$3,000
More than 2,000 faucets	\$15 to more than \$1,900
692 fridges, 717 ranges, and 257 dishwashers	\$240 to \$8,740
Almost 40 brands of flooring	\$1.30 to \$7 per square foot

WHAT IT SELLS

48 cabinet-door styles	See store for prices.
5 countertop materials	\$12 to \$52 per square foot
16 sinks	\$27 to \$413
15 faucets	\$20 to \$280
9 refrigerators, 9 ranges, and 8 dishwashers	\$300 to \$1,900
If you want to redo your kitchen floors, you'll have to look elsewhere.	

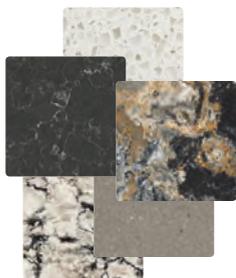


Waterworks Kitchen

Waterworks is known for its luxury bathroom fixtures sold in 15 stand-alone showrooms (and other locations) and by more than 60 partners. The company entered the kitchen-design market last year with an all-kitchen showroom and kitchen sections in three existing showrooms. Waterworks sells its own private-label line of cabinets, countertops, faucets, floors, and sinks. It also has an array of accessories, from cutting boards to table linens. The retailer doesn't sell appliances but has a partnership with Sub-Zero and Wolf, and in-house designers can advise shoppers on kitchen appliances by other brands, too.

Define Your Style

Form meets function in today's best products



QUARTZ ON TOP

Quartz has been the most durable countertop material in our tests for the past few years. More expansive design options are adding to its appeal. A cool, new look: Caesars-stone's concrete collection in a trio of finishes, all with the hand-poured patina of concrete and the toughness of quartz. Prefer the look of marble? Check out Silestone's Lagoon or Lyra patterns.

4,666

That's how many pounds of weight we dropped during our tests to see which floors were most dent-resistant. Vinyl performed best as a category, with several brands getting excellent marks. Most wood flooring had poor scores.

WHITE HOT

White and off-white are the most popular kitchen color schemes, used by 81 percent of certified kitchen designers last year, according to the National Kitchen and Bath Association. After coming on strong in 2014, the color gray is projected to see the most growth in 2015. Consider pairing the two hues, with white on the cabinets and gray on the island.

Hands Off

MORE KITCHEN PRODUCTS ARE ELIMINATING THE HANDLE. THERE'S MIELE'S NEW DISHWASHERS THAT OPEN WITH JUST A KNOCK; CABINETS THAT YOU OPEN WITH A WAVE OF THE HAND ACROSS EMBEDDED SENSORS; AND HANDS-FREE FAUCETS THAT OFFER CONVENIENCE AND WATER SAVINGS—MANY TURN OFF AUTOMATICALLY WHEN YOU PULL YOUR HANDS AWAY.

\$19,226-
\$56,768

That's the average range to remodel a 200-square-foot kitchen depending on materials and the complexity of the project, according to the 2015 Remodeling Cost vs. Value Report (costvsvalue.com).



SHAKER UP!



Shaker cabinetry, known for its clean lines and square corners, was the most popular style in the latest Kitchen Trends Study by Houzz, the home-design website. With its simple rail-and-stile construction, Shaker cabinetry tends to be an affordable option that works well in kitchens that straddle the line between traditional and contemporary.

Turn for ▶▶▶▶

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CAMBRIA CARDIFF
CREAM QUARTZ
COUNTERTOP

Counter Intelligence

Quartz rocks. But here's a guide to many stylish options.

AS CHAMELEONS GO, quartz is impressive. The man-made stone offers an increasingly realistic look mimicking materials such as marble, granite, concrete, and more. But quartz offers easier maintenance than those materials. Combine those qualities with granite fatigue and you can see why quartz is gaining in popularity. Quartz is also top-rated in our tests, narrowly edging out granite.

To test durability we stained, sliced, scratched, scorched, and nicked 14 materials, including a new ultracompact surface called Dekton. We found big differences among materials but little variation among brands, except for recycled glass, so we've rated materials. In some instances, the finish can also effect a material's performance. So you'll see some materials listed more than once.

Cracking Under Pressure



Dekton is a new ultracompact material composed of quartz, porcelain, and glass. It's made using a high-tech process that creates "surfaces of a size and thinness that was previously unimaginable, yet still ensuring extreme levels of performance," its manufacturer boasts. In consumer talk,

that means stains, abrasion, scratches, heat, ultraviolet rays, ice, and thawing are supposedly no match for Dekton.

Dekton resisted damage from heat, stains, chopping, and cutting, and was very good at resisting abrasion in our tests. But in our impact tests, pieces of the edges chipped off, and Dekton cracked in two samples that were the manufacturer-recommended thickness of

2 cm. Those tests simulate what could happen if a heavy pot fell from a shelf or pot rack up to 2 feet above the counter.

"We are unable to validate the results, as testing conditions didn't comply with our own installation guidelines," says Lorenzo Marquez, vice president of marketing for Cosentino North America, Dekton's manufacturer.

Consumer Reports tested Dekton as we

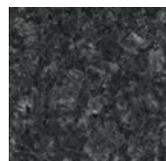
Style File: A Glossary



Quartz

\$40 to \$100
per square foot
installed

This mix of mineral, color, and resin is meant to mimic stone but is more durable and requires less maintenance, making it a good choice for a kitchen that gets a lot of use. Hot pots, serrated knives, abrasive pads, and most stains were no match for quartz.



Laminate

\$10 to \$40 per
square foot
installed

Inexpensive and stylish options with decorative edges abound, including Formica's cool Jonathan Adler Collection. Stains and heat didn't damage the laminates we tested, but cutting directly on it does, and abrasives can mar.

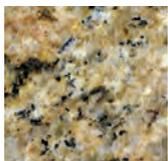


Butcher Block

\$40 to \$100
per square foot
installed

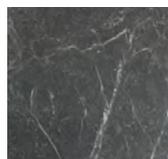
Varnished butcher block was very stain-resistant but terrible at everything else. Oil-finished wood was better at resisting heat, but stains spread and were impossible to remove. Not a good choice for a sink area.

of Materials



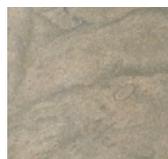
Granite
\$40 to \$100
per square foot
installed

The real deal. Each stone slab is unique. Heat, cuts, and scratching didn't harm the granite we tested, but corners and edges can chip; let a pro repair them. Polished and matte finishes resisted most stains when properly sealed. Granite needs periodic resealing.



Soapstone
\$50 to \$100
per square foot
installed

It's not as common as granite—and it's stunning at first. It resists heat damage, and small scratches can be sanded finely, then coated with mineral oil. But it nicks, cuts, and scratches easily, and some tough stains won't wash away.



Limestone
\$50 to \$100
per square foot
installed

It's attractive but impractical in a busy kitchen. Limestone resists heat well, but it nicks, cuts, and scratches easily, and even a high-quality sealer didn't fend off stains. So blot spills immediately and periodically reseal.

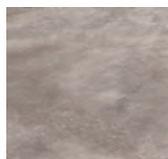
tested all other countertop materials, and none cracked from edge to edge as Dekton did.

Dekton sells for \$60 to \$100 per square foot installed and must be professionally installed. It comes with a 25-year warranty, but it does not cover cracks or chipping due to impact from heavy objects.



Recycled Glass
\$60 to \$120
per square foot
installed

Large shards create a bold look; finely ground glass looks subtle. Resistant to heat, cuts, and scratches, but chips and stains can be a problem. And unlike other recycled-glass counters we tested, Cosentino's Eco line developed a thin crack during our heat tests.



Concrete
\$60 to \$120
per square foot
installed

It's custom-formed, so quality may vary. Concrete chips and scratches easily, and can develop hairline cracks. Topical sealers can protect against stains but not heat. Penetrating sealers can handle heat but not stains.



Marble
\$50 to \$150
per square foot
installed

Marble takes on a patina, to some, but others see it as marred. Small nicks and scratches can be polished out, but marble chips easily and needs to be resealed periodically. On sealed marble most stains wiped away with water.



Bamboo
\$40 to \$100
per square foot
installed

It may be eco-friendly, it adds warmth, and it looks great at first, but it's easily stained, scorched, and nicked. Check if you can use near a sink, because moisture can warp it. Some may need mineral-oil beeswax reapplied.

Ratings: Countertops

Our tests found big variations in the durability of 14 materials but little difference among brands, except for recycled glass. That's why we rate materials, not brands.

● Excellent ● Very Good ○ Good ● Fair ● Poor

MATERIAL	PRICE PER SQ. FT.	SCORE	RESISTS				
			Stains	Cutting	Heat	Abrasion	Impact
Quartz (engineered stone)	\$40-\$100	84	●	●	●	●	●
Granite	\$40-\$100	81	●	●	●	●	●
Recycled glass (penetrating sealer) ¹	\$60-\$120	69	○	●	●	●	●
Laminate	\$10-\$40	68	●	●	○	○	●
Tile (ceramic and porcelain)	\$5-\$30	67	●	●	●	○	○
Ultracompact (Dekton) ²	\$60-\$100	63	●	●	●	●	●
Solid surfacing	\$35-\$100	53	●	●	●	●	●
Soapstone (mineral-oil finish)	\$50-\$100	46	○	●	●	●	●
Concrete (penetrating sealer)	\$60-\$120	40	●	○	●	●	●
Concrete (topical sealer)	\$60-\$120	39	●	●	○	○	●
Stainless steel	\$50-\$150	39	○	●	●	●	●
Butcher block (varnished)	\$40-\$100	37	●	●	●	●	●
Limestone	\$50-\$100	27	●	●	●	●	●
Butcher block (oil finish)	\$40-\$100	24	●	●	●	●	●
Marble	\$50-\$150	14	●	●	●	●	●
Bamboo (beeswax/mineral-oil finish)	\$40-\$100	10	●	●	●	○	●

¹ Unlike other brands, Cosentino's Eco line of recycled counters developed a thin crack during our heat tests and was excluded from the Ratings. ² Cosentino's Dekton was tested. In our impact tests, pieces of the edges chipped off, and the Dekton cracked into two pieces on samples that were the manufacturer-recommended thickness of 2 cm.

How we test counters. We applied 20 common foods and household products and let them stand overnight before cleaning. Not everybody uses a cutting board, so we sliced and chopped using weighted chef's and serrated knives. We put a pot filled with oil heated to 400° F to see how the material resisted damage and discoloration. Running a weighted sanding block back and forth 25 times over each material tested its resistance to abrasion. And because pots drop and other accidents happen, we dropped blunt and pointed weights from up to 3½ feet to test resistance to impact. Scoring is based on the drop height at which damage is first seen. Price is the typical range per square foot, including installation.

Cabinet Decisions

From top to bottom, they set the tone for the whole room. Three steps to getting the most out of this essential kitchen element.

CABINETS CAN BE the biggest expense in a full kitchen remodel, accounting for up to 40 percent of the overall budget. They also set the visual tone for the kitchen, and they're a huge part of how well it functions. Bottom line: Get the cabinets right and your chance of loving your new kitchen will go way up. Here's how:

Step One: Set the budget. Cabinets fall into three categories: stock, semi-custom, and custom. Stock cabinets start around \$70 per linear foot (a typical kitchen has 25 to 30 linear feet of cabinets). Home centers sell them fully assembled or stores such as Ikea offer flat-pack versions that will need to be put together onsite; styles and sizes tend to be fairly limited. Semi-custom cabinets, which range from \$150 to \$250 per linear foot, come in more configurations, so they'll fit your kitchen more precisely, if not perfectly. Custom cabinets can easily cost \$500 or more per linear foot; they're crafted to your exact specs and can include many personalized features.

Step Two: Choose a style. The big decision is between framed and frameless. Framed cabinets consist of a box and face frame, to which doors and drawers are attached. Frameless cabinets, often referred to as European-style, eliminate the face frame; doors and drawers attach directly the cabinet box. That provides

Spruce Up What You Have

If your cabinets are structurally sound and you like the layout, a fresh finish can update your entire kitchen. Repainting is the cheapest option, though to do the job right you'll need to remove the doors and drawers, clean them with a degreasing agent, sand them, and apply a primer and multiple top coats (or pay a pro about \$50 per door). Cabinet refacing is the other way to go. Best suited to framed units, it involves replacing the doors and drawers and applying new veneers to the face frames and ends. Figure about \$150 per cabinet.



great accessibility and a more contemporary look. On the downside, the absence of a face frame can compromise rigidity; better manufacturers compensate by using a thicker box—say, 3/4-inch plywood instead of 1/2-inch particleboard. For the European look in a framed cabinet, opt for a full-overlay door, which covers all or most of the face frame.

Step Three: Pick the features. Accessories can improve cabinet functionality, but they'll also increase the cost by 20 percent or more. A pull-out trash can is a worthwhile addition. Built-in charging stations are helpful, too, because they keep the countertop clear of electronic devices. Appliance garages, those countertop

compartments designed to conceal small appliances, don't always offer the best organization. Instead, consider a lift cabinet with a spring-loaded shelf that swings up and out, providing easy access to a mixer, food processor, or other hefty device.

You'll save money by keeping features to the essential. But it doesn't pay in the long run to skimp on the construction. A well-built cabinet has solid wood drawers with dovetail joinery, not stapled particleboard; full-extension drawer guides rather than an integrated rail; and doors with solid wood frames surrounding a solid wood or plywood panel, as opposed to veneered particleboard or a medium-density fiberboard (MDF) panel.

What's New in Cabinet Design?

"Integrated lighting has become very popular. As soon as you open the drawer, the light comes on. We also do a lot of undercabinet lighting, including LED fixtures with a built-in plug for countertop appliances and a USB port to charge your smartphone and other electronics."

—*Kathleen Wilber, Ikea, U.S. sales leader for kitchens*

"There's still plenty of interest in lighter-toned cabinets. But we're starting to see an uptick in our pebbled gray and chai finishes, as more customers go for a tinted neutral color instead of stark white."

—*Tracy Riel, KraftMaid Cabinetry, manager, designer services*



"Easy-access, touch-to-open door and drawer releases are catching on. There's also a preference for more paired-down door styles and greater interior functionality. That includes task-specific features like coffee-service components and pull-out storage that alleviates physical strain while eliminating dead space."

—*Amy Benton, BauformatUSA, accounts and marketing manager*

Cleanup Crew

Despite marketing hype, when it comes to sinks and faucets price has little to do with performance. Here's how to save without sacrificing style or quality.

SINKS

PICK THE MATERIAL

What the sink is made of matters more than who makes it, according to our tough tests. That's why we rate materials. We stained, scoured, dropped objects, and set down hot pots in 18 double-bowl sinks. We compared thick, heavy-gauge stainless steel with thinner versions, and heavy cast iron with lighter acrylic and trendy fireclay. Our Ratings show results for the six most common materials.

If you're considering stainless steel, don't spend more for thicker-gauge metal. Do look for sound-absorbing pads on the bottom of the sink's exterior. They muffled noise better than spray-on coatings. And matte finishes hid scratches better than polished surfaces.

SELECT THE STYLE

Drop-in sinks, also called top-mount or self-rimming, fit into the counter with an overlapping lip. They're easiest to install and

work with any countertop material. But grime tends to build up where sink and counter meet.

Price \$100 to \$500

Undermount sinks sit slightly below the counter, which must be a waterproof surface, for a sleek look and easy cleanup. Faucets are usually installed in the counter or mounted behind on a wall.

Price \$200 to \$1,000

Farmhouse sinks, also called apron-front, are one deep bowl with the faucet mounted in the counter or on a wall. Stainless-steel models suit modern designs; for a traditional or

country look consider copper or enameled cast iron. But they may require special cabinets.

Price \$900 to \$3,700

MIND THE SPECS

Double-bowl sinks let you soak a pot in one side while washing items in the other. Be sure at least one bowl can fit large pots or roasting pans. In smaller kitchens, a single bowl might be more practical.

Rectangular sinks are standard; D-shaped offer more space front to back. Most range in depth from 6 to 12 inches.

Deeper sinks reduce splashing, but you might have to bend to reach the bottom.



FAUCETS

You don't need to pay hundreds for a kitchen faucet. All but the least expensive models have good-quality valves and tough finishes. As long as a manufacturer provides a lifetime warranty against leaks and stains, feel confident in picking whatever style and features you want.

Single-lever faucets can be easier to install and use than models with separate handles. They also take up less counter space. Models with a side-mounted handle may need more room between the backsplash and handle, or you might end up banging your knuckles when you turn the faucet on or off. Goose-neck faucets have higher clearances, so it's easier to fit a big pot underneath.

A **spray/stream selector**, especially one that has accessible buttons on the side or top of the spray head, lets you switch between spray and stream. Some save the last mode used.

Scratch-resistant **PVD** (physical vapor deposition) finishes come in nickel, copper, pewter, bronze, gold, and polished brass.

A **pullout spout** combines a spout and a spray head with a swivel that adds flexibility. Hoses should reach around to corners.

A **counterweight** helps the hose and spout properly retract.

Whichever faucet you choose, get one with the same number of holes as your sink (new or existing). Otherwise you'll need an ugly base plate to cover the unused holes.

It's also critical to match the faucet to the sink size. A large faucet for a small or shallow sink can cause splashing. And a small faucet for a large sink may not extend into the sink's corners for easy cleaning. Plus mismatched scale just looks silly.

Ratings: Sinks

Scores in context: Of the six sink materials we tested, the highest scored 83; the lowest, 66. Scores among brands were similar, which is why we list only material Ratings.

● Excellent ● Very Good ○ Good ◐ Fair ● Poor

MATERIAL	PRICE	SCORE	RESISTS					
			Stains	Abrasion	Sharp Impact	Blunt Impact	Heat	Noise
Stainless steel	\$100-\$600	83	●	●	●	○	●	○
Solid surfacing	\$200-\$500	80	●	●	○	●	◐	●
Enameled steel	\$100-\$350	77	◐	●	●	◐	●	◐
Enameled cast iron	\$150-\$450	74	○	●	◐	●	●	◐
Acrylic	\$75-\$200	71	●	◐	●	●	●	○
Fireclay	\$550-\$800	66	●	●	◐	●	●	○



Looks That'll Floor You

Whatever style you're after, our tests found attractive flooring options that stand up to spilled food, dropped pots, and even dirty sneakers

THINK OF IT as the fifth wall. The floor has a huge impact on the overall look of the whole room. And whatever material you choose—wood planks, ceramic tiles, vinyl, linoleum, or laminate—is a chance to make a statement. Thanks to technological improvements, faux finishes are more convincing than ever, and our Ratings now list available shades for each product.

Of course, all flooring looks great out of the box, but the true test is what happens once real life takes over. The results of our latest tests show that resistance even to stains such as ink, asphalt sealant, and crayon has gotten better among the newest floors we've seen. And one vinyl we had previously tested showed improvement against scratching as well as staining.

For many shoppers, there's no substitute for the warmth of wood. But in an active kitchen, both solid- and engineered-wood floors are especially prone to denting from dropped items. A great upside to solid hardwood and bamboo, however, is that many can be refinished multiple times to get rid of the scratches and dings of normal use. If a wood you choose has a rustic, distressed appearance like the Armstrong American Scrape Oak Brown Bear, \$7 per square foot, you probably won't even notice small scratches.

Want to pay less for a wood look? The better laminates we tested performed about as well as solid wood. And they can be floated: installed right over your old floor with no need for glues or fasteners.

For an even tougher product, our top-performing "luxury" vinyls come in a variety of wood looks and offer better dent resistance. Both types are also available in realistic stone and slate designs.

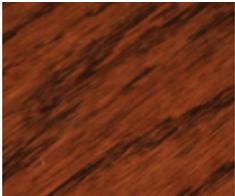
But we often got mixed results from the effects of frequent walking, spilled food, dragged and dropped objects, and sunlight in our tough tests. The Project Source Winchester Oak 2765 laminate, just \$1 per square foot, used to be a CR Best Buy, but the latest version proved too prone to wear for it to rank even close to our recommended floors. But some gained ground. The Mohawk Pastoria Red Oak Natural HCC27-10, \$4.30 per square foot, improved at how well it resisted wear, though not enough to be one of our picks.

Style File: A Glossary of Materials



Solid Wood
INSTALLED COST
\$5 to \$10 per square foot.

Wood, including bamboo, offers a natural look and feel, and can be refinished many times. More are offering rustic-looking, distressed finishes. **BUT** It tends to dent easily and is challenging to install. Several products changed color under UV light, and some can be damaged by large spills. **TIP** Factory finishes tend to be tougher than those applied by a contractor, a potential benefit of buying prefinished floors.



Engineered Wood
INSTALLED COST
\$4 to \$9 per square foot.

Engineered wood and bamboo cost less than solid-wood flooring and offer the same warm, natural look. They can often be floated without glue or fasteners. **BUT** Most dent easily and can be damaged by large spills. And because they're a veneer over substrate, most can be refinished just once. **TIP** Wide planks can help small rooms look bigger.



Laminate
INSTALLED COST
\$3 to \$7 per square foot.

Laminate offers toughness, mimics a variety of natural materials, and can usually be floated. The best wear well and resist stains and color change from sunlight. **BUT** Most dent easily, and laminate can't be saved once you've worn through the top layer. **TIP** Laminate boards from one package often have a similar pattern, so mix pieces from multiple packages to avoid repetition.



Vinyl
INSTALLED COST
\$2 to \$6 per square foot.

Vinyl is tough and durable. And today's products look more like real stone or wood than vinyl has in the past. **BUT** Even the best still don't look completely real up close. And off-gassing brings phthalate concerns for those with young children, though there's no cause for alarm. (See "Can Your Floor Make You Sick?" at right.) **TIP** Do-it-yourselfers should pick tiles or planks over a sheet that must be cut precisely.



Linoleum
INSTALLED COST
\$4 to \$8 per square foot.

This mimics stone and other materials, as vinyl does, but it is made of tree bark and linseed oil, so it's considered a green option. The best offer superb resistance to scratches, stains, and fading from sunlight. **BUT** The best vinyl offers better wear resistance and easier installation for about the same price. **TIP** Consider Armstrong's Marmorette Oak Brown LPO66, \$4.50, which outperformed other linoleum floors in our tests.



Ceramic Tile
INSTALLED COST
\$8 to \$15 per square foot; \$5 to \$8 for products that can be floated.

An enduring material in use since ancient times, it comes in a wide variety of colors, shapes, and prices—even planks with a wood-grain look. Floating products cost less and are easier to install. **BUT** Dropped items can crack traditional and floating tiles, and grout can stain. **TIP** Snap-Stone's Beige 11-001-02-01, \$8, aced most of our tests and can be floated without glue.

Can Your Floor Make You Sick?

A recent "60 Minutes" report accused flooring retailer Lumber Liquidators of selling laminate flooring that emitted far more formaldehyde than California's standards permit, prompting Lumber Liquidators to suspend sales of laminate flooring sourced from China pending its own investigation.

Yet another concern—phthalates in vinyl flooring—made news when Home Depot and Lowe's announced that their flooring will be phthalate-free by 2016. Consumers Union, the advocacy arm of Consumer Reports, has long raised concerns about phthalates.

Formaldehyde, often in adhesives, is a respiratory irritant that, long-term, can cause cancer. Phthalates, which make plastics more pliant, are endocrine disruptors, two of which are classified as possible or probable carcinogens by the EPA.

We'll soon be conducting real-world tests on formaldehyde emissions for some of our recommended flooring. Here are the results from our tests for 13 types of phthalates.

We found that even though the phthalate levels in the flooring itself varied, little made it into the air or onto wipes run across the 17 vinyl and one wood flooring we tested. And although phthalate levels are very low, we recommend that parents of toddlers wet-mop often and wash those little hands after they've been crawling on a vinyl floor.

Pick the Right Flooring

WHEN ONLY WOOD (OR BAMBOO) WILL DO

- **A1 Teragren** \$7.50 per square foot
- **A2 EcoTimber** \$6
- **B3 Harris Wood** \$5.50

For oak, consider **B3**. **A1**, bamboo, resisted foot-traffic wear impressively and can be floated; **A2**, also bamboo, scored comparably but gets nailed down or glued. Also consider the Mullican St. Andrews Solid Oak Strip 10930, \$6.30.

FOR A WOODLIKE LOOK

- **C1 Armstrong** \$3.50
- **D3 Armstrong** \$5.50
- **D5 Shaw** \$2

In addition to its look of salt-bleached wood, **C1** was tops among laminates and was fine against wear. The vinyl **D3** offers a rustic touch; **D5**, a medium-toned oak.

FOR A STONE LOOK

- **D1 Tarkett** \$4.70
- **D2 Congoleum** \$5
- **D4 Armstrong** \$5.50

All three floors, dubbed “luxury” vinyls, offer southwest themes. **D1** and **D2** topped our Ratings for this category. **D4** did almost as well, though all were great against wear, scratches, and sunlight.

WORST FROM OUR TESTS

Some models ranked lower because of little resistance to foot traffic and other flaws. These scored 40 or less out of a possible 100 (prices are per square foot):

Engineered wood

- **Millstead** Red Oak Natural Click PF9356 (Home Depot), \$3
- **Millstead** Smoky Mineral PF9577 (Home Depot), \$4
- **Natural Floors** by USFloors Bamboo 609LS, \$3.30
- **Wicanders** Corkcomfort Series 100 WRT Natural O801007, \$7

Laminate

- **Innovations** Sand Hickory FL904072 (Home Depot), \$4

Linoleum

- **Nova** Linoleum 6615, \$6

Ratings: Flooring

Scores in context: Of the 54 flooring products we tested, the highest scored 96; the lowest, 33. Listed below are the top-scoring models, in order of performance. Recommended models offer top performance in our tough tests. Among those, CR Best Buys offer the very best for the money.

☑ CR Best Buy ☑ Recommended ● Excellent ● Very Good ○ Good ● Fair ● Poor

Recommended	Rank	BRAND & PRODUCT	PRICE	SCORE	Sq. Ft. Per Box	TEST RESULTS					FEATURES		
						Resists Foot Traffic	Resists Scratches	Resists Stains	Resists Dents	Resists Sunlight (UV)	Light Shades	Medium Shades	Dark Shades

A. PREFINISHED SOLID WOOD

☑	1	Teragren Portfolio Naturals Wheat TPF-SYN-WHT-126-DL ¹	\$7.50	75	20	●	●	●	●	●	●	●	●
☑	2	EcoTimber Woven Honey WBH061 ¹ ²	\$6.00	74	23	●	●	●	●	○	●	●	●

B. ENGINEERED WOOD

☑	1	Teragren Synergy Wide Plank Java ¹	\$7.00	76	23	○	●	●	○	●	●	●	●
☑	2	TrafficMaster Western Hickory Desert Gold DH77700144 (Home Depot)	\$3.00	71	20	○	●	●	●	○	●	●	●
☑	3	Harris Wood Traditions SpringLoc Red Oak Bridle HE2505OK48	\$5.50	69	33	○	●	●	●	●	●	●	●
☑	4	Armstrong Century Farm Hickory Natural GCH452NALG	\$6.50	67	28	○	●	●	●	●	●	●	●

C. LAMINATE

☑	1	Armstrong Coastal Living L3051 White Wash Walnut	\$3.50	79	14	●	●	●	●	●	●	●	●
☑	2	Hampton Bay Enderbury Hickory 367551 (Home Depot)	\$2.60	76	25	●	●	●	●	●	●	●	●

D. VINYL

☑	1	Tarkett NAFCO PermaStone Collection—Natural Slate-Sand Stone NS-660 ²	\$4.70	96	27	●	●	●	●	●	●	●	●
☑	2	Congoleum DuraCeramic Sierra Slate SI-74 Golden Greige ²	\$5.00	95	17	●	●	●	●	●	●	●	●
☑	3	Armstrong Luxe Plank Timber Bay Barnyard Gray A6861	\$5.50	94	24	●	●	●	●	●	●	●	●
☑	4	Armstrong Alterna Mesa Stone Canyon Sun D4112 ²	\$5.50	90	25	●	●	●	●	●	●	●	●
☑	5	Shaw Matrix Regency Gunstock Oak LX90100706 (Lowe's)	\$2.00	81	28	●	○	●	○	●	●	●	●

E. LINOLEUM

☑	1	Armstrong Marmorette Oak Brown LP066 ²	\$4.50	79	³	○	●	●	○	●	●	●	●
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F. CERAMIC TILE

☑	1	SnapStone Beige 11-001-02-01	\$8.00	94	5	●	●	●	○	●	●	●	●
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¹ Bamboo product. ² Cannot be floated. ³ Not applicable; comes in sheets.

How we test. To check for resistance to foot traffic, we use an abrasion machine to see how quickly the surface gloss changes. For scratches, we drag a sharp, progressively heavier rig across the flooring until scratches are visible. We leave grape juice, mustard, and 10 other common household items overnight on each floor, try to clean them off, then check for staining. To test for denting, we drop sharp and blunt objects from different heights onto each floor. We measure color change after more than 300 hours of high ultraviolet light levels. And to measure moisture resistance, we leave a damp sponge on the flooring overnight and soak samples for a longer exposure. None of the flooring in the Ratings above swelled or warped. None were slippery, which is why neither of those characteristics is in the Ratings. Price per square foot is approximate retail. Square feet per box is as claimed.

Choose Your Appliances

What's new, what's worthwhile, and what's just not worth the money

25%

That's how much more quickly the best induction cooktops in our tests will deliver heat to your pot of pasta water or your steak-ready skillet, compared with a standard electric cooktop. The speed divide is even greater compared with gas cooktops.



KENMORE
12793

Just Ask

TELLING THE SALESPERSON YOU FOUND A BETTER PRICE AT A COMPETITOR WILL OFTEN PERSUADE THEM TO SWEETEN THE DEAL. IN OUR SURVEY, SUCCESSFUL HAGGLERS POCKETED AN ADDITIONAL

\$102.

11%

That's the percentage of major appliances purchased online. You might be able to save on shipping, but don't count on the purchase being tax-free; rules are complicated.

FEATURES TO LOOK FOR



Refrigerator Dual Evaporators

They keep food fresh longer by maintaining optimal humidity.

French-Door Wall Ovens

When you open one door the other also opens, for one-handed access.

Microwave Drawers

You can tuck the appliance into a cabinet or an island countertop.

WHAT'S IN YOUR FRIDGE?

We're not sure why, but #whatsinyourfridge has been one of the hottest hashtags on social-media sites such as Instagram, Periscope, and Twitter. Share if you must, but we don't want to see any milk or eggs in the door bin. Like all dairy items, they're better off in the main compartment, where temperatures are coolest.



THE BEST MAJOR-APPLIANCE RETAILERS

We surveyed more than 21,000 readers about their experiences purchasing almost 32,500 major appliances last year. Here's how the retailers measure up:

● Better ← → Worse ●

MAJOR APPLIANCES

Order	RETAILER	SCORE	SURVEY RESULTS									
			Price	Selection	Product Quality	In-Store Service	Checkout Ease	Web Support	Shipping/Delivery	Installation	Haul-Away	
1	Abt Electronics & Appliances	94	●	●	●	●	●	●	●	●	●	
2	Independent Local Stores	90	○	●	●	●	●	○	●	●	●	
3	Costco	90	●	●	●	-	●	●	-	-	-	
4	Nebraska Furniture Mart	89	●	●	●	-	●	-	-	-	-	
5	Lowe's	88	●	○	●	○	●	○	●	●	●	
6	Pacific Sales	87	○	●	●	●	●	○	●	○	●	
7	Home Depot	86	●	○	●	●	●	○	●	●	●	
8	Best Buy	86	●	○	●	○	●	○	●	●	●	
9	P.C. Richard & Son	86	●	●	●	○	●	○	●	●	●	
10	HHGregg	84	○	●	●	●	●	○	●	●	●	
11	Sears	83	○	○	●	○	○	○	○	○	○	

Guide to the Ratings. Reader Score represents overall satisfaction with the retail experience. If all respondents were completely satisfied with a particular retailer, the score would be 100. Differences of fewer than 4 points are not meaningful. A dash (-) indicates insufficient sample size for analysis.

Turn for ▶▶▶▶

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Dishwashers, p. 46



WOLF GR304

Pro-Style Paradox

Commercial-style ranges have plenty of style and cachet, but they're not necessarily the top performers

AS SOON AS PRO-STYLE RANGES became the crown trophy in many a kitchen—even when they didn't perform at "Top Chef" level—the bar for style was raised. Their stainless-steel finish, beefy knobs, and heavy grates soon showed up on mid-priced ranges. Now the ever-popular freestanding range has its own stylish makeover. The back panel is gone, and cooktop and oven controls are in front.

Freestanding ranges have finished sides, are easy to install, and cost less than other types, although moving the controls up front raises the price. The ones we tested cost \$1,600 to \$2,300. Slide-ins are usually \$2,000 to \$3,000, and overlap the counter on both sides to look built-in. Some slide-ins and a front-control

smoothtop range made our top picks, but several stylish new models had disappointing performance. We'll keep testing this new range type to find out whether manufacturers can deliver great style and performance for less than a slide-in.

If a pro-style is what you want, we have recommended models that are very good. But they aren't the best we tested. Some have small ovens, especially in 30-inch ranges, and others lack a self-cleaning mode. If you're remodeling (or designing from scratch), consider a cooktop and wall-oven duo. Set the cooktop into a counter that allows you to face out into the kitchen, so that you can interact with others, and install a wall oven (or two) at a height that's easy for you to use.



A3 Samsung

B2 LG

Pick the Right Range

\$1,000 OR LESS

- **B2 LG** \$800
- **B3 LG** \$1,000
- **E4 Frigidaire** \$700, CR Best Buy
- **E5 Kenmore** \$700
- **E6 Samsung** \$900

Electric smoothtops **B2** and **B3** have similar features, including a cooktop warming element. Among gas ranges, **E4** has convection. **E5** was one of the few to ace self-cleaning. **E6** has the largest oven and an oval burner that will fit a griddle or other large pan.

OVER \$1,000

- **A1 LG** \$1,300
- **A3 Samsung** \$1,800
- **A5 Frigidaire** \$1,400
- **B5 Samsung** \$1,500
- **C1 Kenmore** \$1,530
- **C2 Samsung** \$3,600
- **E2 Samsung** \$2,000
- **E3 GE** \$2,800

With **A1**, **A3**, and **A5**'s electric double ovens, you can cook different foods at different temperatures at the same time. With **A3**, a slide-in, temps in the two ovens have to stay within a certain range when both are in use because they're divided only by a removable partition. Among single-oven ranges, **B5** is a sleek slide-in that costs less than most. **C1** is the least expensive induction we tested. **C2** is part of Samsung's Chef Collection and is loaded with features, including the slide-in partition found on **A3**. **E2** and **E3** are stylish gas slide-ins.

PRO-STYLE RANGES

- **KitchenAid KDRS407VSS**
\$4,000 (30-inch)
- **KitchenAid KDRU763VSS**
\$6,000 (36-inch)

Ratings: Ranges

Of the 143 ranges tested, the highest scored 89; the lowest, 25. Below are high-scoring ranges in order of performance in five categories. Recommended ranges offer top performance and don't have brand-reliability issues. CR Best Buys combine performance and value. Note that dual-fuel ranges pair a gas cooktop with an electric oven. Among electric ranges, GE and Whirlpool were among the least repair-prone brands, and Electrolux, Jenn-Air, and KitchenAid were among the more repair-prone, according to the Consumer Reports Annual Product Reliability Survey. Among gas ranges, Frigidaire, GE, and Kenmore were the most reliable brands, and KitchenAid and Maytag were the most repair-prone.

☑ CR Best Buy ☑ Recommended

● Excellent ● Very Good ○ Good ◐ Fair ● Poor

A. SMOOTHTOP, DOUBLE OVEN (30-INCH)

Rec.	Rank	BRAND & MODEL	PRICE	SCORE	TEST RESULTS						FEATURES	
					Cooktop, High	Cooktop, Low	Baking	Broiling	Oven Capacity	Self-Cleaning	Slide-In	Convection Mode
☑	1	LG LDE3037ST	\$1,300	89	●	●	●	●	●	●		●
☑	2	GE PS950SFSS	\$2,800	85	●	●	◐	◐	●	●	●	●
☑	3	Samsung NE58F9710WS	\$1,800	85	◐	●	◐	●	◐	●	●	●
☑	4	Maytag MET8885XS	\$1,700	83	●	●	●	○	●	○		●
☑	5	Frigidaire FGFE302TNF	\$1,400	82	●	●	◐	◐	●	●		●
☑	6	Frigidaire FGFE308TNF	\$1,800	81	◐	●	◐	◐	●	●		●
☑	7	LG LDE3015ST	\$1,300	81	●	●	◐	●	●	◐		●

B. SMOOTHTOP, SINGLE OVEN (30-INCH)

☑	1	Kenmore 95052	\$1,100	87	●	●	●	◐	◐	●		●
☑	2	LG LRE3083SW	\$800	86	●	●	◐	●	●	◐		●
☑	3	LG LRE3023S	\$1,000	86	●	●	◐	●	●	◐		●
☑	4	GE Café CS980STSS	\$2,800	86	◐	●	●	●	●	○		●
☑	5	Samsung NE58F9500SS	\$1,500	83	●	●	◐	●	◐	◐	●	●
☑	6	GE PS920SFSS	\$2,500	83	●	●	◐	◐	●	●	●	●

C. ELECTRIC INDUCTION RANGES (30-INCH)

☑	1	Kenmore 95073	\$1,530	89	●	●	◐	◐	◐	●		●
☑	2	Samsung NE58H9970WS	\$3,600	86	◐	●	◐	●	◐	●	●	●
☑	3	GE PHB920SFSS	\$2,200	86	●	●	◐	○	●	●		●
☑	4	Bosch HIIP054U	\$3,200	81	●	●	◐	●	○	○	●	●
☑	5	Frigidaire Gallery FGIF3061NF	\$1,800	81	●	●	◐	○	◐	◐		●

D. GAS AND DUAL-FUEL, DOUBLE OVEN (30-INCH)

☑	1	KitchenAid KDRS505XSS	\$2,500	71	○	●	◐	◐	●	○		●
☑	2	GE PGB950SEFSS	\$2,500	70	◐	◐	◐	○	●	◐		●

E. GAS AND DUAL-FUEL, SINGLE OVEN (30-INCH)

☑	1	Samsung NX58F5700WS	\$1,600	79	◐	●	●	◐	◐	◐		●
☑	2	Samsung NX58H9500WS	\$2,000	77	◐	●	◐	◐	◐	◐	●	●
☑	3	GE PGS920SEFSS	\$2,800	73	◐	●	●	○	◐	○	●	●
☑	4	Frigidaire Gallery FGGF3032MW	\$700	71	○	●	◐	○	◐	○		●
☑	5	Kenmore 74132	\$700	71	◐	◐	◐	○	◐	●		●
☑	6	Samsung NX58F5500SS	\$900	71	○	●	◐	○	●	○		●



C1 Kenmore

E4 Frigidaire

Continued from p. 40

• GE Monogram ZDP364NDPSS \$7,500 (36-inch)

Of 27 tested, just three are recommended. Those dual-fuel ranges pair a gas cooktop with an electric oven, delivering superb simmering and impressive baking and self-cleaning. But the top-rated 30-inch KitchenAid has a small oven, and the GE wasn't among the fastest for cooktop heating. Among 36-inch gas pro-styles, the Thermador PRG366JG, \$7,500, was also very good overall, but self-cleaning was poor. The \$6,000 Wolf GR366 doesn't have a self-cleaning feature but was good overall.

BEST BRANDS

We analyzed our test results for 30-inch single and double oven ranges from the past three years to see which brands fared best. A strong track record raises the odds of getting a good model, though it's no guarantee.

Safe bet GE, Kenmore, LG, and Samsung have consistently been top performers in our electric smoothtop Ratings. Among gas and dual-fuel ranges, Electrolux, GE, LG, and Samsung were tops.

Relatively safe bet Frigidaire, Maytag, and Whirlpool smoothtop ranges have performed well but less consistently. That's also true for gas and dual-fuel ranges from Frigidaire, Kenmore, and Whirlpool.

Avoid Electrolux, Jenn-Air, and KitchenAid smoothtop ranges have been repair-prone, along with KitchenAid and Maytag gas ranges.

Find the Right Cooktop

UNDER \$1,000

- **A1 KitchenAid** \$900
- **A4 Kenmore** \$640 **CR Best Buy**
- **A5 Frigidaire** \$950
- **C1 Whirlpool** \$900

A1 and **A4** have an expandable element that lets you switch between a large high-powered element and a small low-powered element within it. The stylish **A5** has lots of stainless steel, side knobs, and an expandable element. **C1** is gas, has five burners, a pro-style look, and hinged grates that lift for cleaning.

OVER \$1,000

- **A6 GE** \$1,200
- **A7 Bosch** \$1,200
- **B3 Bosch** \$1,800
- **C4 LG** \$1,100

A6 and **A7** have five elements. All induction models require magnetic cookware, including **B3**. It lets you preset a cooking time for each element and automatically shuts off. Gas models have five burners and a pro look. **C4** offers the fastest heat. The others are better at simmering.

Wall-Oven Winners

These recommended models appear in descending order based on overall score. All have large ovens, were impressive at baking, and impressive or excellent at broiling and self-cleaning. There are no brand-reliability issues. We tested single wall ovens; performance of a double-oven model is based on the single-model performance. Double ovens are noted in smaller type.

- **Whirlpool** WOS92ECOAH, \$1,500, **CR Best Buy**; WOD93ECOAS, \$2,500
- **Maytag** MEW9530AW, \$1,400, **CR Best Buy**; MEW9630A, \$2,700
- **KitchenAid** KEBS109BWW, \$2,000; KEBS209BSP, \$3,500
- **GE** CT9070SHSS, \$3,900 (French-door)
- **GE** PT9050SFSS, \$2,600; PT9550SFSS, \$3,600
- **Whirlpool** WOS51ECOAS, \$1,300, **CR Best Buy**; WOD51ECO, \$2,000
- **Maytag** MEW7530AW, \$1,000, **CR Best Buy**; MEW7630A, \$1,700
- **Bosch** HBL5450UC, \$1,900; HBL5650UC, \$2,805

Ratings: Cooktops

Of the 55 cooktops tested, the highest scored 99; the lowest, 37. Below are high-scoring models in order of performance in each category. Recommended models offer top performance and don't have brand-reliability issues. **CR Best Buys** combine performance and value. Jenn-Air is one of the less reliable brands of electric cooktops. For gas models, KitchenAid is the least reliable and Bosch is among the more reliable brands, according to the Consumer Reports Annual Product Reliability Survey.

CR Best Buy **Recommended**

● **Excellent** ● **Very Good** ○ **Good** ○ **Fair** ● **Poor**

A. 30-INCH SMOOTHTOPS

Rec.	Rank	BRAND & MODEL	PRICE	SCORE	TEST RESULTS		FEATURES		Touch Controls
					High Heat	Low Heat	High-Power Elements/Burners	Low-Power Elements/Burners	
<input checked="" type="checkbox"/>	1	KitchenAid KECC604BBL	\$900	94	●	●	2	2	
<input checked="" type="checkbox"/>	2	Maytag MEC7430WS	\$700	94	●	●	2	2	
<input checked="" type="checkbox"/>	3	Kenmore 44273	\$1,150	93	●	●	2	1	●
<input checked="" type="checkbox"/>	4	Kenmore 42733	\$640	91	●	●	2	2	
<input checked="" type="checkbox"/>	5	Frigidaire Professional FPCC3085KS [†]	\$950	90	○	●	1	0	
<input checked="" type="checkbox"/>	6	GE Café CP350STSS	\$1,200	90	○	●	1	3	
<input checked="" type="checkbox"/>	7	Bosch NETP066SUC	\$1,200	88	○	●	1	3	●
<input checked="" type="checkbox"/>	8	LG LCE3081ST	\$1,000	87	○	●	1	2	●
<input checked="" type="checkbox"/>	9	Whirlpool G7CE3034XP	\$700	86	○	●	2	2	
<input checked="" type="checkbox"/>	10	GE Profile PP945BMBB	\$950	86	○	●	2	2	●
<input checked="" type="checkbox"/>	11	Frigidaire FFEC3024LB	\$500	85	○	●	2	2	
<input checked="" type="checkbox"/>	12	Bosch NET5054UC	\$900	85	○	●	1	1	●

B. 30-INCH INDUCTION

<input checked="" type="checkbox"/>	1	Kenmore 43820	\$1,700	99	●	●	3	0	●
<input checked="" type="checkbox"/>	2	GE Profile PHP900DMBB	\$1,400	99	●	●	2	0	●
<input checked="" type="checkbox"/>	3	Bosch NIT5066UC	\$1,800	98	●	●	2	0	●
<input checked="" type="checkbox"/>	4	Kenmore 43800	\$1,400	97	●	●	3	0	●
<input checked="" type="checkbox"/>	5	Bosch NIT5065UC	\$1,800	97	●	●	2	2	●
<input checked="" type="checkbox"/>	6	Frigidaire FGIC3067MB	\$1,200	95	●	●	3	0	●
<input checked="" type="checkbox"/>	7	KitchenAid KICU500XB	\$1,400	95	●	●	2	0	●
<input checked="" type="checkbox"/>	8	Whirlpool GCJ3061XB	\$1,200	95	●	●	2	2	●
<input checked="" type="checkbox"/>	9	LG LCE30845	\$1,800	93	●	●	1	1	●

C. 30-INCH GAS

<input checked="" type="checkbox"/>	1	Whirlpool WCG97US0DS	\$900	80	○	●	1	1	
<input checked="" type="checkbox"/>	2	Bosch NGM8054UC	\$1,100	79	○	●	1	2	
<input checked="" type="checkbox"/>	3	Kenmore 32353	\$1,200	76	○	●	2	1	
<input checked="" type="checkbox"/>	4	LG LSCG306ST	\$1,100	73	○	○	1	1	

[†] The performance of this model is equivalent to the tested version in the 36-inch size category.

How we test ranges, cooktops, and electric wall ovens. To test high cooktop heat, we time how long the highest-powered burner takes to bring a 6-liter pot of water to a near boil. For low cooktop heat, we note how well the lowest-powered burner keeps a low temperature, as for melting chocolate, and how well the highest-power burner, set on low, holds tomato sauce below a boil. To test how evenly the ovens bake, we bake cakes and cookies on two oven racks. We broil a pan of burgers to find out how evenly they brown and to check high-heat searing. To evaluate oven capacity, we measure usable space. And then it gets messy: We test the oven's ability to remove a baked-on mix of cheese, eggs, pie filling, and other stuff on the self-cleaning setting. Price is approximate retail.



Keeping It Fresh

New refrigerator features can extend the life of your fruits, vegetables, and meats

GROCERY SHOPPERS are demanding more fresh foods, and retailers are responding by making more room for produce, meats, and other “perimeter foods” along the outer edges in stores. The freshness trend isn’t only having an impact on the layout of American supermarkets; it’s also influencing refrigerator design.

Take the Samsung Chef Collection RF34H9960S4, above, a top-scoring model that stands out for its special four-door configuration. The unit’s bottom-right chamber can switch from freezer to refrigerator for families who would rather have more room for produce than Popsicles. “Our data show that most people are keeping that flex chamber in the refrigerator mode most of the time,” says Justin

Reinke, director of refrigeration product marketing at Samsung.

Another freshness-enhancing feature we’ve seen more of in our labs is dual-evaporative cooling. With standard refrigerator design, the fresh-food compartment is cooled with air from the freezer. “Dual evaporators let us create two unique climates,” says Michael Mattingly, a product manager for refrigeration at GE. Our tests confirm that refrigerators with them are better at maintaining optimal humidity in the fridge. And they also keep ice cubes from tasting like fish and other smelly foods.

Some other freshness claims are more difficult to verify. Whirlpool, for example, has been putting filters inside many of

its crisper drawers. That’s supposed to extend freshness up to 25 percent by absorbing the ethylene gas that certain fruits and vegetables give off, accelerating the ripening process. Kenmore’s AirTight Crisper has a special gasket and dimpled surface that the company claims will help retain moisture in produce.

Then there’s the novel door-in-door compartment on several new Kenmore, LG, and Samsung fridges. It lets you access beverages, condiments, and the like without reaching all the way into the fridge’s main compartment. In theory, that can preserve freshness by reducing temperature swings. We can’t guarantee the claim, but the new door is definitely a cool new place to keep the ketchup.

SHOPPING TIPS

Refrigerators that maintain a uniform and consistent 37° F in the fridge and 0° F in the freezer will keep your food the freshest. Here’s what else to consider as you shop:

Pick the style. Bottom-freezers keep fresh food items at eye level. Side-by-sides have narrow door swings and require more bending. Top-freezers cost the least but are the least stylish. Built-in fridges sit flush with cabinets, but they’re pricey and hold the least overall. Cabinet-depth French-doors and side-by-sides offer a streamlined look for less.

Check the specs. If you’re doing a full kitchen renovation, any size refrigerator will probably do. If not, carefully measure the height and width of the existing space; add an extra inch or so for air circulation, and make sure the door swing won’t create a problem with other appliances, neighboring cabinets, or walls.

Choose the features. Through-the-door ice and water dispensers are convenient but they add to the cost, and models with that feature tend to be more repair-prone. Pullout shelves, split shelves, and deep door bins help with storage. Stainless-steel is sleek, but it shows fingerprints; newer matte finishes, like slate and graphite, minimize the mess.

Pick the Right Fridge for Your Needs

FIT FOR LARGE FAMILIES

- **A1 Kenmore** \$3,400
- **B1 Samsung** \$5,400
- **B3 LG** \$2,850
- **C1 Kenmore** \$1,510
- **D7 Kenmore** \$1,400
- **F1 Thermador** \$7,400

A1 is one of our overall top scorers and features a sealed crisper drawer. B1 has the most usable capacity of all the tested models, and its metal interior is supposed to seal in freshness. B3 has a temperature-controlled middle drawer. Choose C1 if you prefer a conventional bottom-freezer without an external ice and water dispenser. D7 offers almost 20 cubic feet of usable capacity, impressive for a top-freezer. F1 is a top-scoring built-in that can take integrated panels to match the cabinets.

SUITED TO SMALL KITCHENS

- **A3 GE** \$2,600
- **D2 Frigidaire** \$850
- **D4 Haier** \$600 **CR Best Buy**
- **E3 LG** \$2,700
- **E5 Bosch** \$2,700

A3 and E3 feature dual evaporators. A3 is our highest-scoring cabinet-depth French-door model, offering a more streamlined look for narrow kitchens. The 30-inch widths of D2 and D4 are a good fit for tight spaces without sacrificing too much capacity. E3 is fairly shallow and has a door-in-door compartment. Choose E5 for a true cabinet-depth side-by-side.

BUDGET BUYS

- **A6 Kenmore** \$1,700 **CR Best Buy**
- **A11 LG** \$1,700
- **D1 Haier** \$800 **CR Best Buy**
- **D2 Frigidaire** \$850

Choose A6 or A11 if you prefer the fresh-food accessibility of a French-door configuration. A11 also features dual evaporators, a nice add-on for the price. Solid temperature performance and superb energy efficiency make D1 our top-rated top-freezer. D2 performed almost as well overall, and it's available in stainless steel.

Ratings: Refrigerators

Scores in context: Of the 300 refrigerators we tested, the highest scored 85; the lowest, 27. Recommended models performed the best overall. CR Best Buys combine value and performance.

CR Best Buy Recommended

A. THREE-DOOR FRENCH-DOOR BOTTOM-FREEZERS

Rec.	Rank	BRAND & MODEL	PRICE	SCORE	TEST RESULTS				FEATURES				
					Temperature Performance	Energy Efficiency	Noise	Ease of Use	Claimed Capacity (Cu. Ft.)	Total Usable Capacity (Cu. Ft.)	Water Dispenser	Energy Cost Yr. (\$)	HxWxD (in.)
<input checked="" type="checkbox"/>	1	Kenmore Elite 74093	\$3,400	85	●	●	●	●	31.7	21.5	External	74	69x36x36
<input checked="" type="checkbox"/>	2	LG LFXS32766S	\$2,900	85	●	●	●	●	31.5	21.5	External	74	69x36x36
<input checked="" type="checkbox"/>	3	GE Profile PWE23KMDES	\$2,600	84	●	●	●	●	23.1	16.0	Internal	47	69x36x29
<input checked="" type="checkbox"/>	4	Samsung RF28HFPDBSR	\$2,700	83	●	●	●	●	28.1	20.0	External	56	69x36x34
<input checked="" type="checkbox"/>	5	Samsung RF30HDEDTSR	\$3,000	83	●	●	●	●	30.2	20.9	External	81	69x36x35
<input checked="" type="checkbox"/>	6	Kenmore 7160[3]	\$1,700	83	●	●	●	○	25.0	17.5	No	52	69x36x32
<input checked="" type="checkbox"/>	7	LG LFX33975ST	\$3,000	83	●	●	●	●	32.5	22.3	External	71	69x36x35
<input checked="" type="checkbox"/>	8	LG LFX29937ST	\$2,700	83	●	●	●	●	29.2	18.7	External	63	69x36x34
<input checked="" type="checkbox"/>	9	Samsung RF28HDEDBSR	\$2,400	82	●	●	●	●	27.8	20.0	External	62	69x36x34
<input checked="" type="checkbox"/>	10	Samsung RF26HFPNBSR	\$2,300	82	●	●	○	●	25.5	18.3	Internal	55	69x36x33
<input checked="" type="checkbox"/>	11	LG LFC24770ST	\$1,700	81	●	●	●	●	23.8	17.4	No	55	69x33x33
<input checked="" type="checkbox"/>	12	LG LFC25776[SW]	\$1,650	81	●	●	●	○	25.0	18.0	No	51	70x36x33
<input checked="" type="checkbox"/>	13	Kenmore Elite 74033	\$3,100	81	●	●	●	●	29.6	19.1	External	68	69x36x34
<input checked="" type="checkbox"/>	14	LG LFXS30766S	\$2,700	81	●	●	●	●	29.6	19.1	External	68	69x36x34
<input checked="" type="checkbox"/>	15	Samsung RF323TEDB[SR]	\$3,300	80	●	●	●	○	31.6	21.8	External	73	69x36x36
<input checked="" type="checkbox"/>	16	LG LFXS29766S	\$3,400	79	●	●	●	●	28.5	19.6	External	75	69x36x35
<input checked="" type="checkbox"/>	17	Kenmore Elite 71313	\$1,600	79	●	●	●	○	23.9	17.4	No	59	69x33x33
	18	Kenmore 70333	\$2,500	77	●	●	●	●	23.9	16.4	External	75	69x36x32
	19	LG LFXS24566S	\$2,000	77	●	●	●	●	23.9	16.9	External	75	69x36x32

B. FOUR-DOOR FRENCH-DOOR BOTTOM-FREEZERS

<input checked="" type="checkbox"/>	1	Samsung Chef Collection RF34H9960S4	\$5,400	84	●	●	●	●	34.3	23.4	External	99	73x36x36
<input checked="" type="checkbox"/>	2	Kenmore Elite 72483	\$3,600	84	●	●	●	●	29.9	21.1	External	70	69x36x36
<input checked="" type="checkbox"/>	3	LG LMXS30746S	\$2,850	84	●	●	●	●	29.9	21.1	External	70	69x36x36
<input checked="" type="checkbox"/>	4	Samsung T9000 RF32FMQDBSR	\$3,500	83	●	●	●	●	31.8	22.9	External	70	72x36x36
<input checked="" type="checkbox"/>	5	Samsung RF25HMEDBSR	\$3,000	80	●	●	●	●	24.7	16.6	External	66	69x33x34
<input checked="" type="checkbox"/>	6	Samsung RF31FMESBSR	\$3,300	79	●	●	●	●	30.5	19.0	External	69	69x36x36
	7	Samsung RF23HSESBSR	\$3,330	76	●	●	●	●	22.6	15.1	External	67	69x36x29
	8	Whirlpool WRX988SIBM	\$2,600	74	●	●	●	●	28.1	17.9	External	68	69x36x34

C. CONVENTIONAL BOTTOM-FREEZERS

<input checked="" type="checkbox"/>	1	Kenmore Elite 79043	\$1,510	83	●	●	●	○	23.8	17.1	No	59	69x33x33
<input checked="" type="checkbox"/>	2	LG LDC24370ST	\$1,650	83	●	●	●	○	23.8	17.1	No	59	69x33x33
<input checked="" type="checkbox"/>	3	Kenmore Elite 79023	\$1,450	81	●	●	●	○	21.8	15.8	No	58	69x30x34
<input checked="" type="checkbox"/>	4	Kenmore 69313	\$950	80	●	●	●	●	18.5	13.4	No	44	66x30x31
<input checked="" type="checkbox"/>	5	Whirlpool WRB322DMBM	\$1,400	77	●	●	○	●	22.1	14.9	No	54	69x33x31
<input checked="" type="checkbox"/>	6	Amana ABB2224BRM	\$1,250	72	●	●	○	●	21.9	15.3	No	56	69x33x31
		Amana ABB1924BRM	\$1,220	71	●	●	○	●	18.5	12.5	No	51	66x30x31



A1 Kenmore



A3 GE



D1 Haier



D7 Kenmore



E3 LG

● Excellent ● Very Good ○ Good ◐ Fair ● Poor

D. TOP-FREEZERS

Table with 11 columns: Rec., Rank, Brand & Model, Price, Score, Test Results (Temperature Performance, Energy Efficiency, Noise, Ease of Use), Features (Claimed Capacity, Total Usable Capacity, Water Dispenser, Energy Cost, HxWxD).

E. SIDE-BY-SIDES

Table with 11 columns: Rec., Rank, Brand & Model, Price, Score, Test Results, Features.

F. BUILT-INS

Table with 11 columns: Rec., Rank, Brand & Model, Price, Score, Test Results, Features.

How we test. To measure temperature performance, we see how uniformly models maintain 37° F in the fridge and 0° F in the freezer, even as we crank up the heat in our labs. Storage is also key, so we measure usable capacity, excluding nooks that manufacturers include but we don't think are usable. We also measure height, width, and depth (HxWxD), rounded to the nearest inch. Noise is measured with the compressor running. Energy cost is how much the unit will cost to run per year based on average electricity prices.

BEST BRANDS

Can't find a model in our Ratings? We analyzed the past three years of test results to find the most consistent brands. The results: Bottom-freezers. Safe bets include Amana, Kenmore, KitchenAid, LG, Maytag, Samsung, and Whirlpool. Fisher & Paykel, GE, and Haier have been less

consistent. Avoid Electrolux and Frigidaire. Top-freezers. Frigidaire, Haier, Kenmore, and LG have been top performers. Consistency has been an issue with Amana, GE, Maytag, and Whirlpool. Side-by-sides. Frigidaire, LG, Maytag, and Samsung were tops. Amana, Electrolux, GE, Kenmore, and Whirlpool were less consistent. Avoid KitchenAid.

Refrigerator Repair Rates

We asked readers whether their model was repaired or had a serious problem. Here are the percentages that failed, by brand, for each type:

BOTTOM-FREEZERS

Table listing repair rates for bottom-freezers by brand: Samsung (18%), Kenmore (19%), LG (19%), GE (19%), Maytag (22%), Whirlpool (25%), KitchenAid (26%), Frigidaire (35%), Electrolux (45%), Kenmore (12%), GE (15%), Whirlpool (21%), Amana (24%).

TOP-FREEZERS

Table listing repair rates for top-freezers by brand: Kenmore (13%), Maytag (15%), Frigidaire (16%), GE (19%), Whirlpool (19%), Kenmore (10%), Whirlpool (11%), GE (11%), Frigidaire (12%).

SIDE-BY-SIDE FREEZERS

Table listing repair rates for side-by-side freezers by brand: GE (18%), Kenmore (20%), Frigidaire (21%), Whirlpool (21%), Maytag (22%), LG (22%), Samsung (23%), KitchenAid (29%).

■ Icemaker ■ No icemaker

Source: Consumer Reports Annual Reliability Survey. Findings are based on responses from almost 80,00 readers who bought a refrigerator between 2010 and 2014. The table above shows the percentage of models for each brand that were repaired or had a serious problem. Differences of fewer than 5 points aren't meaningful, and data are adjusted to eliminate differences linked to age and extended warranty coverage.

Water Works

What's new? Fancy sprays and wash settings that aim to clean better—even as they conserve water.

WATERWALL, STORM WASH, PowerWash Plus—they all sound like something you'd find at a theme park, not in the dishwasher section of your appliance store. Yet despite the fact that today's dishwashers use less water per cycle than ever before, manufacturers are making splashy claims about sprays and water features that they say get dishes cleaner.

Of course, not every innovation is an improvement, as Consumer Reports discovered in its latest dishwasher tests. Our first foray with a Samsung Chef Collection dishwasher with the WaterWall feature, in which a sheet of water moves back and forth across the tub floor, was one example. The filter clogged, stopping the cycle, and we got an error message. But after Samsung made a software fix, the machine got excellent marks for cleaning even with a heavily soiled load.

Rotating jets mounted in the Turbo-Zone of the Kenmore Elite 12783 provided a cleaning boost. The Kenmore Elite 12793, in an industry first, has a motorized spray arm—360° PowerWash Plus—that can change direction if a dish or utensil blocks its path. At least one GE Profile model has special bottle-washing jets on the top rack that are worth a look if you tote your water bottle wherever you go. But Storm Wash, a Samsung feature that briefly directs extra spray to a Storm Zone, was more like a passing shower.

Like other appliances, dishwashers have had to meet tougher and tougher standards to earn Energy Star status. In their quest to develop machines that use less water and energy but still turn out loads of clean dishes, manufacturers have added soil sensors, extra water jets, new rack designs, improved water filtration, and better temperature controls. New standards coming in January

will be more stringent still, and certain dishwashers from Bosch, Kenmore, and KitchenAid already meet them. The trade-off can be longer cycles, but you probably won't mind once you see your utility bill.

We've also noticed a trickle-down effect: Features once seen only on high-end models are appearing in more moderately priced machines. All-stainless tubs, adjustable upper racks, and ample flatware slots are common, and all but the cheapest dishwashers have soil sensors. Third racks for laying flatware flat,

built-in water softeners for homes with hard water, and time-remaining displays are other affordable conveniences.

And dishwashers are getting their due in the design department. KitchenAid has introduced a dishwasher with a window and an illuminated interior as part of its new signature kitchen suite. Miele has seized on the hands-free trend with a Knock2open dishwasher: The door unlatches with a gentle rap of the knuckles. We're bringing them into our labs and will let you know in future issues how well they wash dishes.



GE PROFILE
PDT750SSFSS

Ratings: Dishwashers

Scores in context: Of the 181 dishwashers we tested, the highest scored 85; the lowest, 34.

CR Best Buy Recommended

● Excellent ● Very Good ○ Good ● Fair ● Poor

DISHWASHERS

Rec.	Rank	BRAND & MODEL	PRICE	SCORE	TEST RESULTS					FEATURES		
					Washing	Energy Use	Noise	Ease of Use	Cycle Time (min.)	Stainless/SS-Look Option	Hidden Controls	Displays Remaining Time
<input checked="" type="checkbox"/>	1	KitchenAid KDTM354DSS	\$1,080	85	●	●	●	●	125	●	Some	
<input checked="" type="checkbox"/>	2	Kenmore Elite 12793	\$1,200	85	●	●	●	●	145	●	Some	
<input checked="" type="checkbox"/>	3	Kenmore Elite 12783	\$1,070	82	●	●	●	●	135	●	Some	
<input checked="" type="checkbox"/>	4	Bosch Ascenta SHX3AR7[5]UC	\$700	81	●	●	●	●	95	●	All	
<input checked="" type="checkbox"/>	5	KitchenAid KDFE454CSS	\$1,350	81	●	●	●	○	140	●		
<input checked="" type="checkbox"/>	6	Thermador Topaz Series DWHD640JFM	\$1,500	80	●	●	●	●	125	●	All	
<input checked="" type="checkbox"/>	7	Bosch 800 Plus Series SHX7PT55UC	\$1,300	80	●	●	●	●	125	●	All	●
<input checked="" type="checkbox"/>	8	Bosch 500 Series SHP65T55UC	\$900	80	●	●	●	●	125	●	All	
<input checked="" type="checkbox"/>	9	Bosch 300 Series DLX SHX53TL5UC	\$850	80	●	●	○	●	125	●	All	
<input checked="" type="checkbox"/>	10	Miele Futura Crystal G5225SS	\$1,370	79	●	●	●	●	150	●		●
<input checked="" type="checkbox"/>	11	Bosch 800 Series SHE68T55UC	\$950	79	●	●	●	●	125	●		
<input checked="" type="checkbox"/>	12	GE Profile PDT750SSFSS	\$1,100	79	●	●	●	●	140	●	Some	
<input checked="" type="checkbox"/>	13	Blomberg DWT55300SS	\$850	79	●	●	○	●	130	●	All	
<input checked="" type="checkbox"/>	14	Viking 100 Series FDW101	\$800	79	●	●	○	●	130	●	All	
	15	GE Profile PDT760SSFSS	\$1,500	78	●	●	●	●	140	●	Some	●
	16	Blomberg DWT54100SS	\$750	78	●	●	○	●	85	●	All	●
	17	Thermador Emerald Series DWHD440MFM	\$1,300	78	●	●	●	●	130	●	All	
	18	KitchenAid Architect Series II KDTE554CSS	\$1,600	78	●	●	○	●	145	●	Some	
	19	Kenmore 13693	\$750	78	●	●	○	●	160	●	Some	●
	20	Kenmore 13223	\$600	77	●	●	○	●	160	●		●
	21	Blomberg DWT55500SS	\$900	77	●	●	○	●	115	●	All	●
	22	Viking 300 Series FDW300	\$1,100	77	●	●	○	●	115	●	All	●
	23	GE Café CDT725SSFSS	\$1,000	77	●	●	○	●	145	●	All	●
	24	Frigidaire Gallery FGHD2472PF	\$700	77	●	●	●	●	130	●	All	●
	25	GE GDF540HMFES	\$600	77	●	●	○	●	155	●		
	26	GE GDT580SSFSS	\$800	76	●	●	●	●	155	●	All	●
	27	Thermador DWHD651JFP	\$2,200	76	●	●	●	●	120	●	All	●
	28	Maytag MDB8959SBS	\$800	75	●	●	○	●	115		All	
	29	Whirlpool WDT720PADM	\$460	75	●	●	●	●	155	●	All	●
	30	Kenmore 13202	\$475	75	●	●	○	●	155			●

How we test. In our washing tests, we slather 10 place settings with a variety of foods and let the dishes sit in the machine overnight. Then we run a normal cycle, using the high-temperature option if available. The machine is loaded according to instructions in the owner's manual. Noise is judged by a listening panel during fill, wash, and drain. We measure energy use, most of which goes to heating the water, as well as how much water is used per cycle. And we manipulate the adjustable tines and racks to see how easy they are to use.

Find the Right Dishwasher

QUIETTEST AND MOST EFFICIENT

- **2 Kenmore** \$1,200
- **3 Kenmore** \$1,070
- **5 KitchenAid** \$1,350

Quietness is the feature consumers ask for most. **2, 3,** and **5** get top marks for quietness and energy efficiency, as do the Bosch 800 Plus Series SHE9P-T55UC, \$1,950, and GE Monogram ZDT870SPFSS, \$1,350.

GREAT FOR \$700 OR LESS

- **4 Bosch** \$700 **CR Best Buy**
- **20 Kenmore** \$600
- **24 Frigidaire Gallery** \$700
- **25 GE** \$600
- **29 Whirlpool** \$460
- **30 Kenmore** \$475

These models perform well and won't bust your budget, especially if you wait for a sale. Also consider the LG LDS5040ST, \$700.

Dishwasher Repair Rates

What percentage needed repair (lower is better)

Bosch	9%
Whirlpool	10%
GE	13%
Miele	13%
Kenmore	14%
Maytag	15%
Frigidaire	16%
KitchenAid	18%
LG	18%
Samsung	24%

➔ Source: Consumer Reports Annual Reliability Survey. Bosch and Whirlpool are among the more reliable brands; Samsung is the most repair-prone, according to more than 70,000 readers who bought a dishwasher between 2010 and 2014. Graphs show percentage of models for each brand that were repaired; differences of fewer than 3 points aren't meaningful, and data are adjusted to eliminate differences linked solely to age or extended warranty.



How to Win at TV

As cable companies and streaming services fight it out, consumers have more choices—and confusion—than ever. We help you get the shows you want at the price you want.

Like many young mothers with a growing family, Julie Wilson Caton has been looking for ways to trim her budget, especially because her family is just starting a home addition. She was particularly ticked off at her monthly bill of \$180 for TV, Internet, and phone service, which seemed excessive given how few channels her family actually watches. Caton started to shop around, but as she explored the alternatives, she was taken aback by the growing number of choices.

“I initially thought I might be able to just cut back a bit on my cable package, since we were relying more on Netflix,” recalls Caton, who lives in the Hudson Valley about 30 miles north of New York City. “When I started to do some research, I found there were so many options available. Figuring out the best solution was way more complicated than I ever imagined.”

MANY CONSUMERS SHARE Caton's frustration. There has to be a better way to get TV. Americans may not agree on much, but almost all of us complain about being trapped by overpriced cable packages. According to research firm NPD Group, the average pay-TV customer spends more than \$100 per month for TV and Internet service. And it's not like we're watching all of the channels we're paying for. Last year the typical U.S. home received 189 TV channels but regularly watched only 17, according to Nielsen, a leading research firm. That kind of waste bothers people. In the most recent survey on telecom providers conducted by Consumer Reports, 83 percent of the TV providers we rated received our lowest mark for value.

"Lack of competition among cable providers has resulted in higher prices and poor customer service, year after year," says Ellen Bloom, senior director of federal policy for Consumers Union. But cable customers have grudgingly stayed put because they saw no decent alternatives.

Now, after a quarter century of monopolies, high prices, and frustration, that's beginning to change. Over the past year, new services have emerged, seemingly out of nowhere, and regulatory agencies have aggressively asserted themselves to level the playing field. Internet-streaming services such as Sling TV and Sony PlayStation Vue offer curated channel packages with popular networks such as the Disney Channel, ESPN, and TNT, and Apple is rumored to have its own service in the works. Premium networks such as HBO and Showtime are selling cable-free subscriptions to compete with the likes of Netflix. And cable, satellite, and fiber companies are fighting back with slimmer packages and lower prices.

For the first time in a generation, consumers are starting to have more choice. Why now? The main reason is that broadband service has reached a TV-friendly threshold. About 90 million homes have high-speed Internet connections, closing in on the 100 million households that get pay TV. Comcast, the nation's largest cable company, has more broadband customers than TV subscribers. And Internet connections have become fast enough—about 11 megabits per second (Mbps), on average—to reliably support streaming. That has allowed Internet-based startups to shoulder their way into the market, in turn spurring established TV players to experiment with their services.

"The shift to downloading and viewing content over the Internet could eventually offer real competition in the video market, and that could mean flexible choices and better pricing," Bloom says. For now, TV providers seem less concerned about making fistfuls of money than they are about understanding how the business is shifting. "Broadcasters are finally more open to testing their content on new platforms, to see what consumers want and what makes sense,"

says Dan Rayburn, principal digital media analyst at market research firm Frost & Sullivan.

Government regulation is encouraging, rather than inhibiting, innovation. This spring, the Federal Communications Commission rewrote its rules for Internet service providers (ISPs) to prevent them from favoring one type of content over another or from slowing down or blocking content coming from some websites. That principle of nondiscrimination is called "Net neutrality." The FCC is also fighting state laws that block municipal broadband, so towns and cities can provide fast, cheap public Internet access.

Given better, faster broadband and more options for streaming content over the Internet, consumers can trim or even ditch their conventional cable or satellite TV package. Assembling an entertainment package from a mix of services can seem liberating if you've felt trapped by your cable company. But it's not without trade-offs.

"Streaming still has a lot of issues you don't have with cable—technical problems, buffering, inconsistent home Wi-Fi environments—and it's not clear where you have to go for content," Rayburn says. "With cable and satellite TV, you know that it will work, and the picture quality will be consistently good, especially on a big-screen TV. And all your program choices are easily found on one menu."

You also need to consider value. When our experts priced a few combinations of streaming services, the packages they configured cost \$20 to \$30 per month less than traditional cable, but they got far fewer channels.

Plus almost all of the new options depend on broadband service—which in many cases is provided by the very cable or telecom company you want to escape. If you drop television service, your provider will probably charge you more for Internet service, and you might have no choice but to ante up: The FCC says three out of four households lack choice when it comes to high-speed broadband.

Though new streaming options may not be perfect, the pros clearly outweigh the cons for many consumers. Research firm Experian estimates that 18 percent of households with an online video service such as Netflix have dropped traditional TV service; by contrast, almost 7 percent of households overall have cut the cord. Pay-TV companies started losing more customers than they gained in 2013, and in the first quarter of this year, they lost 86,000 subscribers, reports research firm MoffettNathanson.

Caton hasn't yet decided whether she'll join the ranks of cord-cutters. The week she spoke to us, she was canvassed by a Verizon rep, who said FiOS fiber service was only a block or so away from her home. She's waiting to see how Verizon's offers compare with her other options. In a market that's changing this fast, every week seems to bring a new reason to shop around.

**THOUGH NEW
STREAMING
OPTIONS MAY NOT
BE PERFECT, THE
PROS CLEARLY
OUTWEIGH THE
CONS FOR MANY
CONSUMERS.**



Build a Better Bundle

If you think the hundred-plus channel package provided by your cable company is a colossal waste of content—and money—then it’s about time you explored your options. Here’s our guide to right-sizing your entertainment budget:

Start by creating a list of programs you can’t live without, then ask family members to add their favorites. Do you need to watch shows the day they air? Do you have sports nuts in the house who want everything—including ESPN, TNT, and regional sports networks—or are they casual fans who can make do with what’s broadcast on network TV? Is local news critical? Are you willing and able to use an antenna to pull in over-the-air broadcasts? Do you need a DVR to record shows? Do you have smart TVs or streaming media players, such as Apple TV or Roku devices, that can connect every TV in your home to streaming services?

Check Out All of Your Options

Once you’ve compiled your preferred channel lineup, go through the various cable, satellite, telecom, and streaming-service packages to find the lowest-cost option that most closely matches your list. (See our chart at right.) Then decide which other services or channels you’d want to add. Crunch the numbers to see how the total compares with the best deal from your TV provider. Consider what you get for the money.

New TV Options: Which One Is Right for You?

PROVIDERS	MONTHLY COST	
LIVE TV		
Cablevision Optimum Cord-cutter Plan	\$50 (\$45 plus \$5 modem rental)	
Sling TV	\$20	
Sony PlayStation Vue	\$50 to \$70	
Verizon FiOS Custom TV	\$55 (without broadband)	
SINGLE CHANNELS		
CBS All Access	\$6	
HBO Now	\$15	
Showtime	\$11	
SUBSCRIPTION SERVICES		
Amazon Prime Instant Video	\$8.25 (\$99/year)	
Hulu Plus	\$8	
Netflix	\$8	

TV, Your Way

Want to trim your cable expenses and still get the kinds of shows you love? Here are three packages you can assemble yourself to accomplish both feats.

Satisfy a Sports Fan



Keep the Family Happy



Get the Basics



Cable TV companies have had captive audiences for too long. Now streaming services delivered over the Internet and slimmed-down packages from traditional pay-TV providers are creating a buyer's market. Here's a rundown of your options:

CONTENT	PROS	CONS	DEVICES
Local over-the-air broadcasts, broadband.	Includes Mohu Leaf antenna, 50-Mbps broadband, HBO Now available for \$15 per month, access to Wi-Fi hot spots.	No cable channels, no DVR, requires ability to get over-the-air TV signals.	Cablevision modem/router.
About 20 cable channels, including A&E, AMC, Cartoon Network, Disney Channel, ESPN, Food Network, HGTV, TBS.	Live sports, low price, only \$5 per month for each extra channel pack, \$15 per month for HBO.	No broadcast channels; no DVR; limited pause, rewind, and fast forward; available on only one device at a time.	Amazon Fire TV, Roku, Google Nexus player, iOS and Android tablets and phones, Mac and PC.
From 50 to 85 broadcast and cable channels, including AMC, Bravo, CMT, CNN, Fox Sports, FX, Spike, TLC, TNT, USA.	Cloud-based DVR, excellent search and discovery, regional sports networks.	Expensive, currently limited to three cities, no broadband, works only with PS3 or PS4 game consoles, no ABC or ESPN.	PlayStation 3 or 4 game console.
Base package includes broadcast channels and about 30 cable channels (including AMC, CNN, Food Network, HGTV), plus choice of two channel packs.	Local broadcast channels, \$60/month plan includes 25-Mbps broadband, add-on packs (including ESPN) available.	Not much cheaper than other FiOS TV plans with much more content, being sued by ESPN because channel is not in core package, higher fees than most.	Verizon set-top box.
Select live and on-demand CBS shows.	Local CBS broadcasts for those who can't get free over-the-air TV.	No NFL games yet, no DVR.	Android and Apple devices, BlackBerry, Chromecast, Kindle, Roku, Windows 8.
Movies, original shows such as "Game of Thrones," documentaries.	HBO content without pay-TV subscription.	Available only on Apple devices and through Cablevision.	Apple devices, Cablevision cable box, soon available on Android and Chromecast.
Movies, original series such as "Ray Donovan," documentaries.	Showtime content without pay-TV subscription, costs less than HBO Now.	No blockbuster shows like HBO's "Game of Thrones."	Apple devices, Roku, and Sony PlayStation Vue.
Movies, original series such as "Bosch" and "Transparent," older HBO series.	Free with Amazon Prime delivery, growing content library, Amazon Music with a Prime subscription.	No current episodes of programs from other channels, lag before getting blockbuster movies.	Wide device support (except for Apple TV).
Current and past seasons of broadcast TV shows.	Current and previous ABC, Fox, and NBC shows, older ones from CBS, a few cable channels, and soon, original series.	Includes ads, modest selection of movies, limited selection of older shows.	Almost universal device support.
Movies, original series such as "House of Cards," past seasons of shows such as "Breaking Bad."	Vast selection, compelling original programming, wide device support.	No current episodes of programs from other channels, lag before getting blockbuster movies.	Almost universal device support.

Full channel lists are available on company websites. All information current as of mid-June 2015.

Sling TV, \$20/month Twenty popular channels, plus ESPN and ESPN2, and TNT for Final Four and NBA Basketball.	+	Sling TV sports add-on pack, \$5/month ESPN Buzzer Beater, ESPNNews, Universal Sports, SEC Network, etc.	+	Over-the-air TV antenna, \$40, for local channels and sports events.	=	\$80 up front (antenna and \$40 Amazon Fire TV Stick), plus \$25/month for Sling TV, plus broadband, about \$50.
Verizon FiOS Custom TV, \$60/month Local broadcasts and cable channels, plus broadband.	+	Two FiOS add-on packs (such as Kids and Pop Culture) are included in the package. Additional packs are \$10 each per month.	+	Amazon Prime \$8.25/month Includes access to older Viacom shows, including "Dora the Explorer."	=	\$78.25/month with no up-front costs, but there are additional monthly service and equipment fees. Broadband is included.
Free over-the-air broadcast TV using an antenna.	+	Hulu Plus, \$8/month, and Netflix, \$8/month, for TV shows and movies.	+	Over-the-air TV antenna, \$40, for local channels and sports events.	=	\$90 up front (antenna and \$50 Roku Stick), \$16/month for streaming services, plus broadband, about \$50.

90% Consumers who multitask while watching TV.*

If you would save a little but give up a lot, it might not be worth switching. Check the fine print on pricing. Prices sometimes rise steeply after a promotional period ends.

Traditional TV Services

If you get your TV service from a cable, satellite, or fiber provider, it's worth checking out their current offers before you sever ties. You might be able to trim costs without losing your favorite channels by "shaving" the cord rather than cutting it. Check out the most basic plan available; most such plans start at about \$20 per month. Companies rarely promote them, so you may have to dig to find them.

If you like cable programs such as AMC's "The Walking Dead" or TNT's "Falling Skies," a midpriced package that includes regular cable channels should suffice. Some providers let you add premium cable channels such as HBO for about \$10 per month, so don't assume you have to spring for a pricey package to get them.

A number of companies offer flexible packages with a limited number of cable channels plus broadband. Verizon's FiOS Custom TV Double Play plan, for example, combines 25-Mbps Internet service with local broadcasts, about 30 cable channels (about 10 of them mainstream), and a choice of two channel packs for \$60 per month. You can add more packs such as sports (which includes ESPN), kids, and news for \$10 each. (At press time, ESPN was suing Verizon, stating that contracts required that it be part of the core package.)

Traditional TV bundles have one big advantage that you won't get with most streaming services: easy recording on a DVR, which is often included in midpriced and higher packages and available for an additional cost with the most basic plans.

New Streaming Services

Most new over-the-Internet TV services have about 20 to 30 cable channels as part of a core package, and some let you pay to add channels, including premium channels such as HBO and Showtime. But that can quickly bump up the price, and even then, none of the services completely replicates what you'd get with cable—including a DVR.

Sports has been called the glue that has kept viewers stuck to traditional cable and satellite TV packages, but that's starting to change. ESPN, home to "Sunday Night Baseball" and "Monday Night Football," is available in Sling TV's cord-cutter package. Sling TV's basic package also includes popular channels such as AMC, CNN, and the Disney Channel, but it doesn't have the major broadcast networks or a DVR. You can add channel packs for \$5 more per month apiece.

Sony's PlayStation Vue has a cloud-based DVR and as many

Best of the Bundles

WOW, a regional cable company, was the highest-rated provider for triple plays. It's the only company in the bundle Ratings that didn't earn a low score for value, so consider it first if you're lucky enough to live in its service areas. Three other regional companies—SuddenLink, Wave, and Bright House Networks—did well, too. Verizon FiOS, a fiber-based service that is more widely available, also deserves a look. Two major cable companies, Comcast/Xfinity and Time Warner Cable, were among the lower-scoring ones.

Ratings

BUNDLE TYPE	PROVIDER	READER SCORE ¹	VALUE
Cable	WOW	74	○
Cable	SuddenLink	69	◐
Cable	Wave (Astound)	68	◐
Cable	Bright House Networks	68	◐
Fiber	Verizon FiOS	67	◐
Fiber	AT&T U-verse	65	●
Hybrid ²	Verizon	64	●
Hybrid ²	Windstream	63	●
Cable	Cable One	63	●
Hybrid ²	DirectTV	62	●
Hybrid ²	CenturyLink/Prism	61	●
Hybrid ²	Frontier	61	●
Cable	RCN	61	●
Hybrid ²	AT&T	61	●
Cable	Cox	61	●
Cable	Charter	60	●
Cable	Cablevision/Optimum	60	●
Cable	Comcast/Xfinity	56	●
Cable	Time Warner Cable	54	●
Cable	Mediacom	51	●

Scores in context: Of 20 providers with enough responses to be included in the survey, the highest scored 74; the lowest, 51. ¹ Differences of fewer than 4 points are not meaningful. ² Hybrid bundles combine varying types of TV, Internet, and phone service; one example would be satellite TV with DSL Internet service and landline phone.

Guide to the Ratings. Ratings are based on Consumer Reports subscribers' responses to our 2014 Annual Questionnaire: 25,370 with TV, Internet, and phone bundles; 68,615 with broadband Internet; and 69,704 with TV service. **Reader score** reflects overall satisfaction: 80 would mean all respondents were very satisfied; 60, fairly well satisfied; 40, somewhat dissatisfied. Other scores are on a scale from Very Poor to Excellent.

TV Services That Shine

Regional providers Armstrong and WOW were among the best for TV service. Among more widely available companies, DirecTV and Verizon FiOS are strong choices, and both earned the highest score for picture quality. Several major cable companies are much lower on the list.

Ratings

Connection Type	PROVIDER	READER SCORE ¹	SURVEY RESULTS					CUSTOMER SUPPORT
			Value	Reliability	Channel Selection	Picture	Phone Support	
Cable	Armstrong	76	◐	●	○	◐	●	-
Cable	WOW	72	◐	◐	○	◐	◐	◐
Satellite	DirecTV	70	●	◐	◐	●	○	○
Fiber	Verizon FiOS	70	●	●	◐	●	○	○
Satellite	Dish Network	70	●	○	◐	◐	○	○
Cable	MidcoNet	69	●	◐	○	◐	-	-
Cable	Bright House Networks	67	●	○	◐	◐	◐	○
Fiber	CenturyLink/Prism	67	◐	○	◐	◐	○	-
Cable	Wave (Astound)	67	●	○	○	◐	◐	-
Fiber	Cincinnati Bell	67	◐	○	○	◐	-	-
Fiber	AT&T U-verse	66	●	○	◐	◐	◐	○
Cable	SuddenLink	65	●	○	○	○	○	○
Fiber	Frontier	64	●	◐	○	◐	-	-
Cable	RCN	63	●	○	○	○	○	-
Cable	Service Electric	62	●	○	○	○	-	-
Cable	GCI	61	●	○	○	○	-	-
Cable	Cox	61	●	○	○	◐	○	○
Cable	Cablevision Optimum	61	●	○	○	○	○	○
Cable	Cable One	60	●	○	◐	○	○	-
Cable	Charter	59	●	○	○	○	◐	◐
Cable	Atlantic Broadband	58	●	○	◐	○	○	-
Cable	Comcast/Xfinity	57	●	○	○	○	●	●
Cable	Time Warner Cable	54	●	◐	○	○	◐	◐
Cable	Mediacom	51	●	●	●	◐	●	●

Scores in context: Of 24 providers with enough responses to be included in the survey, the highest scored 76; the lowest, 51. ¹ Differences of fewer than 6 points are not meaningful.

Internet Services That Deliver

Four regional cable companies rank near the top for user satisfaction with broadband service. Verizon FiOS is also near the top. All stood out for reliability and speed. Armstrong Zoom was one of two providers (along with WOW for bundles) in the entire survey that didn't have a low score for value.

Ratings

Connection Type	PROVIDER	READER SCORE ¹	SURVEY RESULTS					CUSTOMER SUPPORT
			Value	Reliability	Speed	Phone Support	In-Home Service	
Cable	Armstrong Zoom	79	○	●	●	●	●	-
Cable	WOW	75	◐	●	●	●	●	●
Cable	MidcoNet	73	◐	◐	◐	-	-	-
Cable	Wave (Astound)	73	◐	◐	◐	●	●	-
Fiber	Verizon FiOS	72	◐	●	●	○	◐	-
Cable	EarthLink	71	◐	◐	○	-	-	-
Fiber	Frontier	71	◐	●	●	○	-	-
Cable	Service Electric	70	●	◐	○	-	-	-
Fiber	Cincinnati Bell Zoomtown	69	◐	◐	◐	-	-	-
Cable	SuddenLink	68	●	○	○	○	○	○
Cable	Bright House Networks	67	●	○	○	◐	◐	-
Fiber	CenturyLink/Prism	67	●	◐	○	◐	-	-
Cable	Cable One	67	●	○	◐	○	-	-
Fiber	AT&T U-verse	66	●	◐	○	◐	◐	◐
Cable	Atlantic Broadband	66	●	◐	○	○	-	-
DSL	Cincinnati Bell Zoomtown	65	●	○	◐	-	-	-
Mobile	Sprint	65	●	○	◐	-	-	-
Mobile	Verizon	65	●	○	○	○	-	-
Cable	RCN	65	●	○	○	○	-	-
Mobile	AT&T	65	●	○	○	◐	○	-
DSL	EarthLink	64	●	○	●	◐	-	-
Cable	MetroCast	64	●	○	○	-	-	-
Cable	Cox	64	●	◐	◐	○	○	-
DSL	TDS	64	●	○	◐	-	-	-
Cable	Cablevision/Optimum	63	●	○	○	○	○	○
Satellite	Dish Network	63	●	◐	◐	○	-	-
Cable	Charter	63	●	○	◐	◐	○	-
DSL	CenturyLink/Prism	62	●	○	●	◐	-	-
DSL	FairPoint	61	●	○	●	○	-	-
Satellite	Exede/ViaSat	61	●	◐	◐	○	-	-
DSL	Verizon	61	●	◐	●	●	○	-
DSL	Frontier	60	●	◐	●	○	○	-
Cable	Comcast/Xfinity	59	●	○	○	●	◐	-
DSL	AT&T	58	●	◐	●	◐	○	-
Cable	GCI	58	●	◐	◐	-	-	-
DSL	Windstream	57	●	●	●	◐	○	-
Cable	Time Warner Cable	57	●	○	○	◐	◐	-
Cable	Mediacom	55	●	●	◐	●	●	-
Satellite	HughesNet	50	●	●	●	●	-	-

Scores in context: Of 39 providers with enough responses to be included in the survey, the highest scored 79; the lowest, 50. ¹ Differences of fewer than 6 points are not meaningful.

as 85 local and cable channels, but it lacks ABC and Disney channels including ESPN and regional sports networks. At press time, Vue was available in only three cities, but Sony said it would be offered more widely soon. Also, its cost—from \$50 to \$70 per month—isn't much lower than that of many cable plans.

At press time, the dark horse in the race was Apple, which was reportedly readying a streaming service for launch this fall. Based on early reports, it could have about 25 local and cable channels and cost \$30 to \$40 per month.

Filling in the Gaps

It's quite possible that no single alternative will completely meet your family's needs, so you might have to mix and match. You can start with a skinny cable package and supplement it with Internet streaming services or over-the-air local broadcasts using an antenna. (You'll find advice about reception in your area on websites such as AntennaWeb and TV Fool.)

Some networks offer limited live programming on their



READ

Get more information on triple-play packages and streaming media services and players. Go to ConsumerReports.org and click on Electronics. Online subscribers can get Ratings and specific model recommendations.

websites. CBS, with its \$6-per-month CBS All Access, is the only major network with a full stand-alone streaming service. But NFL games will be excluded because of licensing agreements. If you can live with a delay of a day or so, you can watch current episodes of many shows from the major networks on Hulu Plus, which costs \$8 per month. And if you're OK being a

season or more behind, Netflix, \$8 per month, and Amazon Prime, \$99 per year, are great options for movies and binge-watching. Many professional leagues—including MLB, NBA, and NHL—offer monthly or yearly online streaming subscriptions, though local games are often blacked out. The one exception is NFL Sunday Ticket, which is available only to DirecTV subscribers.

If you go through the process we've outlined, you should be in a good position to decide which telecom service, or mix of services, is best for your family. And with things changing so rapidly, check back periodically to see whether an even better choice for you has emerged.

Adjust Your Bandwidth

ONCE YOU'VE ASSEMBLED your package, make sure your Internet connection and Wi-Fi setup can handle it. Your modem or router, as well as the speed of your Internet service, can affect performance.

Netflix and other streaming services say you'll need at least 5 Mbps for streaming high-definition shows and movies, but that's for one user at a time. It's more likely that you and your spouse may be watching a Netflix movie while your teen daughter streams ABC Family's "Pretty Little Liars" and your tween plays Minecraft with online friends. Performance can suffer as your broadband speed is split among simultaneous users.

If you'll be relying on your broadband connection to stream most of your content,

you'll want enough speed to avoid buffering delays or a drop in picture quality. The FCC says that streaming video usually requires a download speed of 5 to 25 Mbps. The agency recently redefined "broadband" as having a download speed of at least 25 Mbps, up from 4 Mbps. But active households may want even faster connections.

Most cable companies and Verizon charge about \$45 to \$50 per month for 25-Mbps broadband service and \$10 or so more for 50 Mbps. But prices can go up if you drop TV service and broadband is no longer part of a bundle.

Also, you'll want to make sure your Wi-Fi router is up to snuff. At the very least it should support the 802.11n standard; if

it doesn't and you rent a router from your ISP, ask it to replace the router with a newer model. The newest standard, called 802.11ac, is capable of faster speeds and more directional signaling, though your devices will also have to support it. Dual-band routers, which operate on two frequency bands, can minimize interference from devices, such as microwave ovens and cordless phones, that operate in the lower 2.4-gigahertz range.

Keep in mind that cable Internet service can slow down during the evening—the data equivalent of rush-hour traffic—when others in your area are also streaming. But if you think your wireless connection is to blame, try a wired connection; you may get more speed and reliability.

Gotchas That Can Cost You



HIDDEN FEES

Know the full price before you sign up for a plan. Fees for installation, regional sports, equipment, taxes, and more can tack \$25 or so onto your monthly bill.

EARLY EXIT

Most cable companies don't require a contract, but certain providers do, especially with promotional rates. With Verizon contracts, you pay up to \$350 if you want out before your term expires. DirecTV and Dish charge a prorated fee of \$20 per month (up to \$480) if you try to exit a contract early. Before you sign anything, find out what it'll cost you to get out of a contract if you change your mind later.

MODEM OR ROUTER RENTAL

A rental charge of \$8 to \$10 per month adds up fast. Instead of continually shelling out that fee, buy your own gear for about \$100 or less.

Road REPORT

TRUCKIN'

We test the best-selling pickup in America, conduct a muscle-car showdown, and tell you how to get a hot summer deal at the end of the model year. Our coverage begins on page 56.

WEIGHT WATCHERS

The redesigned Ford F-150, at right, lost 700 pounds. How does that affect acceleration, fuel economy, and towing? Check out our test results on page 60.

RIGHT-SIZING

The midsize Chevrolet Colorado pickup provides an alternative for those who don't need a big truck. See page 57.



PLUS: OIL CRISIS

New cars shouldn't burn oil between changes, but our exclusive report shows that some top-name cars do just that. See page 61.

Home-Improvement Haulers

THERE IS NOTHING MORE AMERICAN THAN A PICKUP TRUCK. And the segment has been undergoing a transformation in recent years, with redesigns of the Chevrolet Silverado, Ram, Toyota Tundra, and soon the Nissan Titan. But the big dog in the group is the Ford F-150, which has been the No. 1-selling truck in America for 33 years. And for those folks for whom size doesn't always matter, we also tested the Chevrolet Colorado, which is leading a resurgence in the compact pickup segment. Who comes out on top?



PICKUP TRUCKS

Ford F-150

High-tech advances can't overcome an underwhelming driving experience

78

76

3.5-liter 2.7-liter

WITH THE LAUNCH of the redesigned F-150, Ford broke all of the rules for pickup trucks. From its much-touted aluminum construction—shaving about 700 pounds from the old model—to available small-displacement twin-turbo V6 engines promising the power of a V8 but with better fuel economy, Ford has shaken things up in a category not known for innovation. It has bet the farm on the automaker's biggest profit center.

The weight-loss program and high-tech wizardry under the hood pay off with class-leading 17 mpg overall fuel economy from the 2.7-liter turbo V6—edging out the 5.3-liter V8 Chevrolet Silverado by one hay-hauling mpg. The F-150's 2.7- and beefier 3.5-liter turbo-V6 engines provide plenty of punch even at low revs, with quick acceleration and effortless towing ability. Powerwise, you won't miss a V8.

Still, old-school truckers can relax because a 385-hp, 5.0-liter V8 is also available. It has a great V8 rumble, but the two turbo V6 engines have more torque. The 3.5 turbo is actually a better choice for towing, with a max rating of 11,500 pounds. Rounding out engine options is the base, nonturbocharged 282-hp, 3.5-liter V6. All powerplants are paired with a six-speed automatic.

Inside, our tested crew-cab models had cavernous room front and rear, and both

were almost tomb-silent. The driving position is comfy and roomy. A standard tilt-and-telescoping steering wheel and optional power adjustable pedals can accommodate truckers of all shapes and sizes. Large windows and relatively narrow pillars provide better visibility than the competing Silverado or Ram 1500, but a rear camera costs extra. It should be standard equipment, given a pickup's rear blind zone behind the back bumper.

A wide range of trim levels and option packages let buyers choose anything from a hose-it-out fleet special to a posh, leather-lined interior with luxury-car comforts. Our tested midlevel XLT trim was quite basic in ambiance and not befitting a \$46,000 vehicle. Lots of clever features, including a tailgate ladder and side mirror spotlights, make work and play easier.

Despite the revolutionary new structure, the F-150 driving experience falls flat. Bearing in mind that we were testing a truck, the steering was nonetheless vague and slow to respond, and the ride was fidgety and unsettled even on relatively smooth surfaces. That means staying in your lane on rural back roads requires fatiguing focus. A wide turning circle doesn't help with parking. The Silverado handles better, and the Ram has a plusher, more settled ride. The F-150 also lost points for long stopping distances.

If you're a Ford loyalist dead set on staying in the family, be aware that new F-150s are



TESTED VEHICLES

HIGHS	Quiet cabin, acceleration, fuel economy, available towing and payload capacities, clever features
LOWS	Jittery ride, lackluster handling and braking, frustrating MyFord Touch infotainment system
ENGINES	325-hp, turbocharged 2.7-liter V6; 365-hp, turbocharged 3.5-liter V6; 6-speed automatic transmission; four-wheel drive
FUEL	17 mpg (2.7-liter); 16 mpg (3.5-liter)
PRICE	\$26,995-\$56,265



LET THERE BE LIGHT The F-150 has several neat features, such as these bed lights.

currently rolling off the line with Ford's distracting and irritatingly glitchy MyFord Touch infotainment interface. The system is to be replaced by year's end with the new Sync 3. Based on our experience, the new display looks more intuitive and easier to use. We think it might be worth the wait.



PICKUP TRUCKS

Chevrolet Colorado

Don't need a monster pickup truck? Chevy offers a mid-sized alternative.

69

THE WORLD NEEDS more small trucks. They're easier to park and maneuver, and cost less to feed than the relative behemoths known as the Ford F-150, Chevrolet Silverado, and Ram 1500. The problem has been that there are only moribund and dated compact models available. And though the Chevrolet Colorado is the first redesign in 11 years, the fact that it tops the class is due more to its newness rather than it being inherently ground-breaking.

How to put this nicely? We really, really want to like this truck. We just can't.

This Colorado replaces a version that was an also-ran right out of the box. So small-truck buyers were left to choose between the aged Nissan Frontier and the rough-and-tumble ride of the Toyota Tacoma—akin to choosing between poison ivy and wasps on a 10-mile hike. Hence, Chevrolet had Rocky Mountain high hopes for the new Colorado.

The pint-sized dimensions make parking a snap. It's clearly the most maneuverable truck in the segment, and handling is quite responsive as well. Fuel economy, at 18 mpg overall, is tops. The cabin is quiet and easy to climb into.

As for carrying out normal truck duties, the Colorado boasts a 1,555-pound payload and can tow up to 7,000 pounds. That's more than the Tacoma or Frontier.

But this is where things start to go badly. Despite its 305 hp, the V6 is rather short on the low-end torque that's so important for truck owners who actually haul stuff. The ride can be

brutal at times, with choppiness and jostling on any road rougher than a velvet Elvis painting.

To fulfill its trucklike duties, the Colorado offers a damped rear tailgate that opens without sounding like you dropped a box of nails on a metal floor. A standard corner step in the rear bumper and a low loading height make getting your stuff into the bed that much easier.

Expectations for interior quality in this segment are predictably low. The plastic knobs are rubber-ringed, but dials, switches, and panels are hard to the touch.

The real deal-breakers here are the seats and driving position. The standard cloth seats in our tested LT model were universally scorned by our testers for being too stiffly padded and lacking lumbar adjustment. The bottom seat cushion didn't adjust for tilt, and the recline adjustment is manual. The steering wheel didn't telescope far enough for many.

From a safety standpoint, we laud the Colorado for being equipped with a standard rear-view camera. We're also impressed that it's the only small truck currently available with forward-collision and lane-departure warning—part of the \$395 Safety Package.

The as-tested price for our crew-cab four-wheel-drive LT came to an eye-widening \$34,300, not far from many full-sized trucks.

Overall, the Colorado is almost a large-truck alternative. But it's not cheap, and upcoming redesigns of the Tacoma and Honda Ridgeline mean that its elite stature among small trucks could be short-lived.



TESTED VEHICLE

HIGHS	Maneuverability, towing and payload capacities, fuel economy, damped tailgate, standard rear camera
LOWS	Ride, uncomfortable seats and driving position, gets pricey
ENGINE	305-hp, 3.6-liter V6; 6-speed automatic; part-time four-wheel drive
FUEL	18 mpg
PRICE	\$20,995-\$35,290



EASY DOES IT The damped tailgate is a nice touch, lowering the gate gradually.



CLEAN LINES The Colorado's cargo loops can be hidden away when not in use.

Muscle Machines

DESIGNERS CALL IT RETRO-FUTURISM: taking a fond look back at the treasures we cherished as adolescents and updating them with modern features and touches. Nowhere is the trend more apparent than with muscle cars, where classic examples from the 1960s routinely top six-figure prices at auction. For those with more ordinary budgets, Chevrolet, Ford, and Dodge have recently updated their go-fast coupes with modern powertrains, electronics, and safety features to accompany designs that pay homage to their sainted roots.



SPORTS CARS

Ford Mustang

America's original pony car is reborn for its second half-century

82

V8

74

4-CYL.

WHAT DO YOU GIVE the iconic Ford Mustang for its 50th birthday redesign? Lots and lots of presents.

Ford provided its quinquagenarian pony car with the equivalent of a heart transplant and a hip replacement. It added a turbocharged four-cylinder engine to the lineup and replaced its creaky solid-axle rear suspension with an independent multilink design. What does that mean? Strong power with decent fuel efficiency, and a chassis that's more planted than skittish.

But Ford's largesse didn't stop there. A rakish new silhouette provides a sleeker, sportier appearance that's modern yet true to the Mustang's Americana roots. Interior quality and ambience are improved immensely.

Coupe and convertible versions are again available. We tested two coupes—a GT V8 with a six-speed manual, and a 2.3-liter turbocharged four-cylinder with a six-speed automatic. The turbo is a stylish, mildly sporty boulevardier; the GT is a tire-smoking brute that will summon your inner teenager.

With a snappy 0-60 mph acceleration time of 6.4 seconds, the turbo version lives up to the image of its sheet metal. Power comes on quickly, but the engine sound is raspy and gritty. Fuel economy of 25 mpg overall is more akin to a midsized sedan than a performance car. As for handling, the turbo Mustang has an appropriately sporty demeanor while leaving your molars intact on bumpier roads.

With its throaty 5.0-liter V8, the GT is

more of a high-strung thoroughbred than an easygoing mare. Pumping out 435 hp, our GT roared from 0-60 mph in just 4.9 seconds, about a half-second slower than a Chevrolet Corvette or Porsche 911. The six-speed manual had smooth, low-effort action, and the clutch was light enough to avoid left-leg fatigue in traffic. That's a rare feat in a car with this much torque.

With the optional Performance package, we got stiffer springs, Brembo brakes, and a Torsen limited-slip axle. So equipped, the GT felt ready to race. But the Pirelli P Zero tires take forever to heat up for optimum grip, so we recommend getting performance all-season tires for real-world driving.

All Mustangs have improved interiors, with soft-touch materials offsetting some hard plastic surfaces here and there. A row of toggle switches in the center stack lends a cool, retro-racer flair. But the irritating and poorly designed MyFord Touch infotainment system won't be replaced by Sync3 until 2016.

Unlike many sporty cars and coupes, the Mustang can serve as a daily driver without severely compromising visibility, ease of access, or drivability. The front seats are superbly supportive, but they lack a power recline feature. As for the rear seats, there's room for groceries but little else. It is, after all, a coupe.

A standard rear camera is helpful. We'd also select the optional blind-spot monitoring.

So how does the Mustang look as it turns 50? Better than most of us.



TESTED VEHICLE

HIGHS	Handling, V8 acceleration and exhaust note, braking, interior details
LOWS	Rear seat, ride (V8), noise, EcoBoost engine sound, glitchy MyFord Touch infotainment system
ENGINES	435-hp, 5.0-liter V8, 6-speed manual; 310-hp, turbocharged 2.3-liter 4-cylinder, 6-speed automatic; rear-wheel drive
FUEL	19 mpg (V8); 25 mpg (turbo 4)
PRICE	\$24,625-\$42,625



WHOA, NELLY The optional Performance package comes with high-performance tires and brakes.



IT'LL FIT GROCERIES Even kids will struggle to find room in the backseat.



SPORTS CARS

Dodge Challenger

It rumbles. It snarls. It roars. Bravado comes standard.

70

EVER SINCE THE CHALLENGER'S

2009 reincarnation as a retro-modern muscle car, Dodge has made a series of civilizing upgrades to the interior. It has also improved the handling and given it the latest version of Chrysler's accomplished touch-screen infotainment system.

Rest assured, its brazen attitude remains.

The 2015 vintage brought various cosmetic changes, performance-oriented features, and a choice of V6 and V8 engines spread over a bewildering 10 trim lines, culminating in the outrageous 707-hp "Hellcat" version.

Our tested car was a loaded midtrim R/T Plus with a 375-hp, 5.7-liter "Hemi" V8 and six-speed manual. Adding navigation; heated seats and steering wheel; a sport-oriented tire, brake, and suspension package; and active safety gear nudged the sticker to \$40,860 with shipping.

The Challenger's bruising design makes a definite statement at a red light, with the Hemi's baritone exhaust note gurgling at idle.

But such an intimidating form takes a toll on function. The cockpit is a low, dark man

cave, with plenty of macho furnishings. It feels as if you're sitting in a pit—surrounded by long, high doors and windows that better resemble embrasures.

Despite its heft, the Challenger is surprisingly capable. It snarls and grips in corners like a rottweiler with a rib-eye steak. Braking is exceptional. Steering requires more wheel-winding than expected but provides decent feedback. The manual shifter has longer throws than the Mustang's, but it's easy to find the right gear. Though not quick through our avoidance maneuver, it stayed balanced and predictable.

Various track-driving apps let you scale down or shut off driving aids like stability control. That allows an experienced driver to test the limits—of car and wheelman—on a closed course. Compared with Ford's pony car, the Dodge remained docile even at the limits of tire grip in corners. For a high-performance coupe, the Challenger has an almost refined demeanor.

In everyday driving, our Challenger was a mixed bag. Around town, you feel the car's heft and width. The ride is very firm but not



TESTED VEHICLE

HIGHS	Brawn, exhaust note, braking, infotainment system, habitable rear seat
LOWS	Ride, noise, visibility, wide-hipped around town
ENGINE	375-hp, 5.7-liter V8; 6-speed manual
FUEL	20 mpg
PRICE	\$27,990-\$60,990

too punishing. Acceleration is effortless, but the loud, exhilarating exhaust note can become tiresome. The heavy clutch-pedal effort wears your left foot.

The cockpit offers an old-school analog speedometer and tach dials. A versatile, full-color information screen shows a host of useful info, including a digital speedometer, a trip computer, and audio settings. Our car also displayed track stats including 0-60 mph times, braking distances, and lateral g's.

Although the Challenger offers generous steering-wheel adjustments, the recline adjustment for the front seats is manual only. The rear seats will fit kids, but an adult needs a slender body and powers of levitation.

The Challenger's biggest challenge is that it's not the only muscle car with a modicum of civility. Drivers must carry an individualistic streak that overlooks its flaws.

Chevy's Next Camaro: Smaller, Lighter, More Powerful

THE THIRD ENTRANT in the long-running American muscle-car race is the Chevrolet Camaro. The current model dates back to 2009—and we recommend the V8 version on the market now—but shoppers should know that a redesigned version arrives in dealerships later this year.

Styled with a clear nod to the 1967 original, the sixth-generation Camaro promises to ratchet up performance and sophistication. The car's dimensions contract for 2016. It's slightly shorter, narrower, and lower, and it rides on a more compact wheelbase. Chevy has reduced its weight by at least 200 pounds to bolster fuel economy and handling agility.

The base engine is a 275-hp, turbo-charged four-cylinder. A new 3.6-liter V6 brings an incremental power gain, up a dozen horses to 335 total. For the V8

offering, Chevrolet adapted the ferocious 6.2-liter LT1 engine from the Corvette Stingray. With 455 hp on tap, it will be the most powerful SS yet.

All versions have a choice of a six-speed manual or an eight-speed automatic transmission.

The interior retains a dual-binnacle instrument panel. The buttons and assorted brightwork appear more polished than the chintzy controls in the outgoing model. There are two 8-inch color screens, one providing

key driving information in the instrument cluster and the other serving as the interface for the latest MyLink infotainment system.

At first blush, the new Camaro appears to be more hospitable and a formidable competitor to the Challenger and Mustang. We will test it soon.



ROAD TESTS

Ratings: Sports Cars

Scores in context: Recommended models did well in the overall road-test score and had average or better predicted reliability. They also performed adequately in government or insurance-industry crash tests.

Recommended



SPORTS CARS Equipped with manual transmission.

Recommended	Rank	MAKE & MODEL	PRICE As Tested	RELIABILITY Predicted	SCORE Road Test	TEST RESULTS									
						Overall MPG	Acceleration 0-60 MPH, Sec.	Quarter Mile, Sec.	Braking, Dry/ Wet 60-0 MPH, Ft.	Avoidance Maneuver Speed, MPH	Routine Handling	Ride/Noise	Seat Comfort Front/Rear	Driving Position	Controls
	1	BMW M235i	\$50,400	NA	98	25	5.2	13.8	115/128	58.5	●	○/●	●/●	●	●
	2	Ford Mustang GT Premium (V8)	\$43,295	New	82	19	4.9	13.4	121/133	54.5	●	○/○	●/●	●	○
	3	Nissan 370Z Touring (Coupe)	\$38,565	NA	81	23	5.3	13.9	120/127	58.0	●	●/●	●/-	●	●
	4	Subaru WRX Premium	\$29,742	New	75	26	6.0	14.5	120/128	59.0	●	●/●	○/●	●	●
	5	Ford Mustang Premium (2.3 turbo, auto.)	\$33,080	New	74	25	6.4	14.9	125/135	53.0	●	○/○	●/●	●	○
<input checked="" type="checkbox"/>	6	Dodge Challenger R/T Plus (V8)	\$40,860	○	70	20	5.5	13.9	119/128	51.5	●	○/○	●/●	○	●
<input checked="" type="checkbox"/>	7	Chevrolet Camaro Coupe 2SS (V8)	\$35,425	○	66	18	5.1	13.6	129/137	55.5	●	○/●	●/●	○	○
	8	Hyundai Genesis Coupe	\$28,375	●	64	23	6.2	14.6	138/149	54.0	●	●/○	●/●	●	●
	9	Chevrolet Camaro Coupe 2LT (V6)	\$28,195	○	55	21	6.6	15.2	133/144	53.0	●	○/●	●/●	○	○

Why certain models are not recommended. The Ford Mustang and the Subaru WRX are too new for us to have reliability data. The Hyundai Genesis Coupe has below-average reliability. We have insufficient data for the BMW M235i. The Chevrolet Camaro (V6) scored too low to recommend.

Ratings: Pickup Trucks

Recommended



PICKUP TRUCKS

Recommended	Rank	MAKE & MODEL	PRICE As Tested	RELIABILITY Predicted	SCORE Road Test	TEST RESULTS									
						Overall MPG	Acceleration 0-60 MPH, Sec.	Towing Capacity, Lb.	Braking, Dry/Wet 60-0 MPH, Ft.	Avoidance Maneuver Speed, MPH	Routine Handling	Ride/Noise	Seat Comfort Front/Rear	Driving Position	Load Capacity, Lb.
	1	Ram 1500 Big Horn (V6, diesel)	\$49,155	NA	82	20	9.5	8,750	143/160	47.0	●	●/●	●/●	○	1,170
	2	Ram 1500 Big Horn (5.7L V8)	\$42,810	●	81	15	7.1	9,950	141/154	47.0	●	●/●	●/●	○	1,270
	3	Chevrolet Silverado 1500 LT (5.3L V8)	\$42,070	●	80	16	7.5	11,200	138/164	45.5	○	●/●	○/●	○	1,705
	4	Ford F-150 XLT (3.5 V6 EcoBoost)	\$46,755	New	78	16	7.2	7,600	139/156	46.5	●	●/●	●/●	●	1,925
	5	Ford F-150 XLT (2.7 V6 EcoBoost)	\$45,750	New	76	17	7.0	10,700	137/155	46.0	●	●/●	●/●	●	1,465
	6	Chevrolet Colorado LT (V6)	\$34,300	New	69	18	7.5	7,000	132/150	48.5	○	●/○	●/○	○	1,555
	7	Toyota Tundra SR5 (5.7L V8)	\$34,738	●	63	15	6.7	7,400	153/178	44.5	○	●/●	●/○	○	1,395
	8	Toyota Tacoma (V6)	\$33,119	○	49	17	7.9	6,400	139/148	47.0	●	●/○	●/●	○	1,050

Why certain models are not recommended. The Chevrolet Silverado and Ram 1500 (V8) have below-average reliability. The Toyota Tacoma and Tundra scored too low to recommend.

OIL CRISIS

Adding oil between scheduled changes? Automakers say it's normal; our new data says it's not.

CARS UNDER WARRANTY shouldn't burn oil. And most don't.

But Consumer Reports' 2014 Annual Auto Survey found that several auto manufacturers are building engines—available in a number of widely sold models—that require frequently topping off the oil reservoir between recommended oil changes. That's a worry and cost that a new-car owner shouldn't have.

The oil-change industry has long prescribed changing your oil every 3,000 miles. In recent years, most automakers have stretched that to 7,500 or even 10,000 miles because refinements in engine manufacturing and oil technology purportedly allow engine oil to last longer.

For some automakers, though, that appears to be an optimistic claim. In our survey of owners of about 1 million vehicles stretching back 10 years, we found that for certain models, significant numbers of consumers have to add a quart of oil to their engines as frequently as every month.

It's normal for cars to burn a little oil as they age toward 100,000 miles and beyond. But Consumer Reports believes that for an almost new car to burn that excessive amount of oil is unacceptable.

We focused on 498,900 vehicles from the 2010 to 2014 model years, many of which are still under their powertrain warranty. Several engines emerged as the main offenders: Audi's 2.0-liter turbocharged four-cylinder and 3.0-liter V6, BMW's 4.8-liter V8 and twin-turbocharged 4.4-liter V8, and to a lesser extent Subaru's 3.6-liter six-cylinder and 2.0- and 2.5-liter four-cylinders.

Those engines are in models such as the Audi A3, A4, A5, A6, and Q5; BMW 5, 6, and 7 Series, and X5; and Subaru Forester, Impreza, Legacy, and Outback.

The worst case showed that, overall, owners of BMW 5 Series vehicles with V8 engines were 27 times as likely to suffer excessive oil consumption as owners of an average vehicle.

Already, some manufacturers are facing off against angry consumers who are finding that carmakers aren't backing up their products.

How Much Is Too Much?

Audi, BMW, and Subaru stick firmly to the statement that oil consumption is a normal part of a car's operation. Subaru considers a quart burned every 1,000 to 1,200 miles to be acceptable. Certain Audi and BMW cars' standards state that a quart burned every 600 to 700 miles is reasonable.

If a driver has to add a quart of oil once per month, that can mean adding up to 7 to 9 quarts of oil between oil changes. Those costs can add up because automakers more frequently require synthetic oils that can cost upwards of \$9 per quart—in addition to the expense of the routine oil changes.

Consumer Reports data does not show a direct connection between increased oil consumption and other engine problems. But our survey data concerning 10 model years shows

that if a car burns oil early in its life, it will burn even more as it ages. In tracking oil consumption by model year, engine families show increased consumption with each successive year on the road.

Having to add oil isn't a problem that will necessarily strand you by the side of the road if you are vigilant about monitoring your oil levels. But we think it's a serious problem that automakers should address.

Not all engines suffer from this problem. In fact, our data shows that owners of 98 percent of 2010 to 2014 cars did not have to add oil between changes. But the cars that do burn oil do so furiously. Even if only 2 percent of vehicles sold since 2010 have this problem, that still represents about 1.5 million vehicles on the road.

Consumer Reports believes that any engine that burns oil between changes should



be repaired under the powertrain warranty. But automakers often shield themselves in the fine print of their owners' manuals.

What Carmakers Are Doing About It

In some cases, when confronted by a customer complaint, the manufacturer has authorized a dealer to repair, rebuild, or replace the engine under warranty. In other cases, though, some manufacturers are defending the oil consumption as falling within the car's technical specifications—or they blame the car's owner for his or her driving habits.

Shelly Shugars, a training director from Tivoli, N.Y., bought a new 2012 Subaru Impreza Sport hatchback and had her first oil change done on schedule when it hit its first 3,000 miles. But since that oil change, she says she has been adding a quart of oil every 800 to 1,000 miles. Shugars says her Subaru dealer told her that her car's oil consumption is normal, although the automaker offered her \$500 for her trouble. Rebuilding the engine to fix the problem would cost far more.

Shugars is far from alone. Subaru and Audi are in the midst of class-action lawsuits regarding the problem.

Subaru's director of corporate communications, Michael McHale, said in an e-mailed statement, "The rate of consumption can be

affected by such factors as transmission type, driving style, terrain, and temperature."

For consumers who complain, Subaru has authorized its dealers to perform oil-consumption tests to determine whether the vehicle is performing outside of manufacturer specifications. Subaru began modifying its engines on certain models starting in 2010 but took until 2014 to modify others.

Meanwhile, a settlement to a class-action lawsuit against Audi would extend the powertrain warranty on its 2009 to 2011 model-year CAEB 2.0-liter turbo engines to eight years or 80,000 miles. Audi declined to comment on the litigation or oil-consumption problems in general. Our data shows that newer Audi 2.0-liter turbos and V6 engines are also burning oil.

In a recent technical service bulletin, Audi recommended that "the customer always have a spare quart of engine oil in case the engine oil needs topping off while on the road."

BMW outlines such consumption as part of its manufacturer specifications. You can even purchase a traveling case for oil, to affix in the car's trunk.

"Oil consumption is normal on all engines," BMW spokesman Hector Arellano-Belloc said in an e-mailed statement. "BMW vehicles have long intervals between oil changes (10,000 miles). BMW engines

(excluding the BMW M) may consume up to one quart of engine oil per 750 miles under certain driving conditions." He added that BMW's M performance models may consume even more oil than that.

Other manufacturers that have shown instances of oil consumption are taking corrective action.

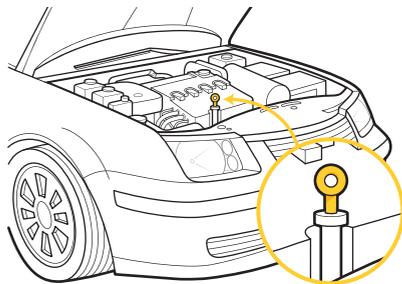
Honda recently issued a warranty extension to eight years or 125,000 miles for 2008 to 2011 Accord and 2010 to 2011 CR-V four-cylinder engines. Honda said it had found that sticking piston rings could lead to higher oil consumption if the engine is revved hard when cold, when combined with prolonged usage of low-quality gasoline.

And following the filing of a class-action lawsuit in California regarding its four-cylinder 2AZ-FE engines sold in some 2007 to 2011 models, Toyota amended its powertrain warranty on those engines to 10 years or 150,000 miles. A Toyota representative said, "This program provides complete relief to owners who are currently affected, as well as those who have previously paid for repairs."

Automakers are facing a dilemma: They want to reduce ownership costs and the ecological impact of their cars. Used engine oil can pose a hazard if not properly discarded, and internal combustion engines

How to Check Your Oil

GOT A LOW-OIL WARNING LIGHT? It's bad to have too little oil in your engine, but it's also a problem if you add too much. So be careful not to overfill your engine. Also consult your owner's manual to determine the right grade of engine oil to use. Here's how to determine how much oil you may need to add:



1.

Drive the car long enough to warm up the engine, then park it on level ground, turn off the engine, and wait 2 minutes. Look under the hood to find the oil dipstick. On most newer cars, the dipstick handle is a bright yellow or orange plastic ring.



2.

Pull out the dipstick, wipe it clean with a lint-free cloth, reinsert it fully, and remove. The dipstick should have markings that designate the engine oil level. A sheen of oil should indicate the engine's current level.



3.

If the oil level is at or below the bottom 'fill' line, add ½ quart of oil into the reservoir opening—located under the screw-cap mounted on top of the engine. Wait 2 minutes, then recheck the level. If it's still low, add more oil incrementally.

ROAD REPORT

rely on routine changes. But wait too long to change your oil and it can foul—turning to sludge and damaging your engine.

Some consumers we followed up with told us they would not have bought their oil-burning cars had they known they would be checking their oil so often. A recent CR national survey of 542 American owners of a 2000 to 2016 model-year vehicle showed that 39 percent either never check their oil or only have it checked when taken in for service.

If consumers are being denied repairs and rebuilds on engines that consume too much

oil, those cars could end up unloaded onto used-car lots by folks sick of adding oil. That just passes the problem on to the next owner.

If a car does consume oil under warranty, Consumer Reports believes the automaker should cover the repair costs for current owners and pay to top off the oil in between changes—and not just improve the engine's design for future buyers.

➔ **FOR MORE INFORMATION** about oil consumption, why it happens, and what you can do about it, go to ConsumerReports.org.

The Thirsty 30

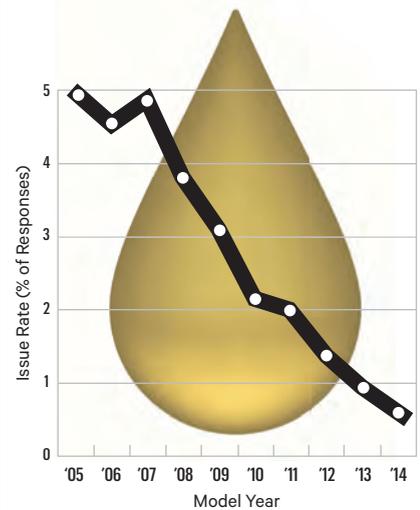
According to data from Consumer Reports' 2014 Annual Auto Survey of owners of 498,900 vehicles from 2010 to 2014 model years, these 30 models have much higher rates of oil consumption overall than the average for their model years.

RANK	MAKE & MODEL	% OF VEHICLES THAT NEEDED AT LEAST A QUART OF OIL BETWEEN CHANGES				
		2010	2011	2012	2013	2014
1	BMW 5 Series (V8)	*	43	33	36	15
2	BMW 7 Series	38	34	35	37	11
3	BMW 6 Series	18	—	18	38	11
4	Porsche Panamera	61	39	20	22	5
5	BMW X5 (V8)	*	29	23	10	11
6	Audi A4 (2.0T)	58	48	9	4	2
7	Audi A5	52	34	10	3	2
8	Audi Q5 (2.0T)	24	55	11	7	0
9	Porsche Cayenne	26	23	21	7	2
10	Audi A6 (V6)	20	17	22	3	2
11	Audi S4	37	19	11	3	0
12	Audi A3 (2.0T)	9	13	11	6	—
13	Subaru Outback (6-cyl.)	14	17	13	3	2
14	Audi S5	26	11	8	4	1
15	Audi Q7	10	7	15	5	3
16	BMW X1 (6-cyl.)	—	—	—	7	2
17	Subaru Legacy (6-cyl.)	19	15	13	2	0
18	BMW 335i Sedan	8	5	9	9	3
19	Audi A7 (V6)	—	—	17	3	0
20	BMW 5 Series (6-cyl.)	8	8	8	8	2
21	BMW 335Ci	14	3	7	2	—
22	Porsche Boxster	5	7	*	1	5
23	Audi Q5 (V6)	11	7	3	4	2
24	Audi A6 (2.0T)	—	—	5	4	2
25	Subaru Forester	4	8	5	4	2
26	Subaru Impreza	2	1	13	3	1
27	Mercedes-Benz E-Class (V8)	3	4	7	4	2
28	Volvo XC60	6	13	2	1	2
29	Volvo XC70	13	10	2	2	0
30	Chevrolet Spark	—	—	—	3	2
The Average Model		2	2	1	1	1

A dash (-) indicates that the model wasn't made that year. *Insufficient data.

Burning Up

The chart shows the percentages of surveyed vehicles that needed at least a quart of oil added between oil changes, sorted by model year. The chart does not include vehicles that leaked oil.



Can't Get No Satisfaction?

IF YOUR CAR requires frequent topping off of its oil, you may have recourse from the automaker.

Take your car to your dealer, along with receipts for oil changes and oil purchased between oil-change intervals. Ask whether your car is eligible for repairs under any customer-satisfaction campaign or technical service bulletin.

Even then, the dealer may want to conduct an oil-consumption test before offering to perform repairs under warranty.

The test measures how much oil you consume over several weeks of driving. If your car's oil consumption exceeds the manufacturer specifications and it's still under its original powertrain warranty, Consumer Reports believes the dealer should repair or replace the engine free of charge. Some extended warranties will cover the problem. However, if your car is consuming oil, but at a rate less than the manufacturer guidelines state is excessive, you could be in for a legal battle.

If that is so, you may want to consult an attorney regarding lemon-law statutes. Also check to see whether your car is a part of a class-action suit already in progress.



CAR STRATEGIST

Summer Deals

What's the secret to scoring some hot wheels? Find out about hidden incentives, and which cars are leaving the lineup.

A CAR DEALERSHIP is the last place most folks want to be on a summer day. But with the 2016 models on the way, dealers are offering big discounts on their remaining 2015 stock—especially for vehicles receiving major changes for the upcoming model year. Here are some tips and tricks to make sure you get the best deal when the industrial-strength air conditioning lures you into a showroom:

THE PRICE OF UNPOPULARITY

Automakers usually pay a car dealer's inventory "floor planning" costs for 60 days. But after that, the holding costs come out of a dealer's pocket. That gives the dealer extra reason to sell that moldy oldie sitting on the

lot. Those unpopular units often have colored stickers identifying them as such to the sales staff. Ask whether any car on the lot is aged stock. Chrysler, GM, and Hyundai have given additional incentives to move old inventory.

STAIR-STEP STOCK

One way some automakers spur their dealers to sell more units is with "stair-step" incentives. Dealers get extra bonuses from the factory if they exceed their typical volumes, and those incentives skyrocket with each new benchmark hit. The problem: If the dealer falls short by one unit, he doesn't get the big payday. As the deadline draws near, dealers get desperate to hit the mark. Ask the salesman whether there are any stair-step incentives in place and see what happens.

One Reason to Wait

If you're in the market for a Ford or Lincoln vehicle, you may want to wait. The erratic, distracting MyFord Touch infotainment system will be replaced with Sync 3—which looks promising. It will arrive first in the Ford Escape and Lincoln MKC by the end of summer; the rest of the lineup will roll out Sync 3 during the 2016 model year.

IT ONLY LOOKS NEW

You may be seduced by a discounted 2015 model, but remember that it's "new" only in that it has zero miles on the clock. Some vehicles are much older in terms of their engineering and design. Long-in-the-tooth models often are hard to sell, especially if a carmaker has begun publicizing a new 2016 edition.

If you don't need the latest sheet metal, the old models usually carry big financing and lease incentives on their way out the door.

This summer, that aged lineup with big incentives includes the BMW 7 Series, Chevrolet Malibu and Volt, Ford Edge and Explorer, Hyundai Elantra, Kia Optima and Sportage, and Lexus RX. (Of those, we don't recommend the BMW and the Fords.)

Some caveats: Because those models are of an old design, they may not have the latest safety features and body construction technology. Plus, your car will suffer a big depreciation hit once the new model arrives.

DO YOUR HOMEWORK

Automakers list sales incentives on their website. Yes, it's annoying when the site asks for your ZIP code, but it does the work of finding localized incentives for you.

Also, college graduate or military discounts aren't as exclusionary as they sound. They often apply to family members as well. To reap the benefits, you must live in the same household as the graduate or the active or recently discharged veteran.

BUY LOCAL

See a good deal at a dealership the next town over? Though a dealer may come down on price to steal a sale away from his rival, it could be a shortsighted play for you. When a dealer offers free replacement tires or oil changes, it almost always requires going to that dealer for all future maintenance. Traveling that extra distance for a freebie won't seem as much of a bargain later.

HOW TO HAGGLE

When negotiating, use e-mail so that you can take your time in analyzing the offer. You also will have the offer in writing. Contact multiple dealers for the best price, and don't disclose your knowledge of additional discounts until after you've negotiated a price.

➔ **HAVE A PROBLEM WITH YOUR MECHANIC OR DEALERSHIP? SOMETHING PUZZLING YOU ABOUT YOUR CAR? Contact CR's Car Strategist at carstrategist@cr.consumer.org.**



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Free Pregnancy With Purchase

An ad for a massage that really delivers was just one the confounding promos and product labels sent in by our readers.

Will It Fit?

The confusing label on this GE PartsMaster drip bowl left Eileen Tilque of Salem, Ore., wondering. (It wound up suiting her rangetop just fine.)



• Fits most brands EXCEPT GE®

That's Worth a Really Big Tip

The awkward phrasing on this spa ad, seen by Arlynn Manasse of Downers Grove, Ill., hints that women who go in to relax will walk out with a lifelong commitment.



For That Tousled-Hair Look

Several readers sent in this error from a Starcrest of California catalog. "Can't quite figure out how this would work," wrote Shirley Carr of Orange City, Fla. "I bet it would give me a headache."



Lost in Translation

When Aaron Sirob of Rogersville, Mo., saw this bottle, he was surprised to find out not only that Paul Newman had a Russian alter ego, but also that the late actor's name was spelled two ways. (The company said that one was a typo.)



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CANADA EXTRA

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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.

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 34D, 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 e-mail message or implement every suggestion, but with your help we'll try to keep growing to serve your needs.

Cooktops Six of the high-scoring cooktops are available. Report and Ratings, pages 40-42

		BRAND & MODEL	PRICE	SCORE
Recommended	Rank			

A. 30-INCH SMOOTHTOPS

<input checked="" type="checkbox"/>	2	Maytag MEC7430WS	\$1,100	94
<input checked="" type="checkbox"/>	8	LG LCE3081ST	\$1,500	87
<input checked="" type="checkbox"/>	9	Whirlpool G7CE3034XS	\$1,100	86

B. 30-INCH INDUCTION

<input checked="" type="checkbox"/>	7	KitchenAid KICU500XB	\$2,300	95
<input checked="" type="checkbox"/>	8	Whirlpool GC13061XB	\$1,900	95

C. 30-INCH GAS

<input checked="" type="checkbox"/>	1	Whirlpool WCG97US0DS	\$1,600	80
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Refrigerators

Twenty-six of the top-scoring refrigerators are available, including 22 of the recommended models.
Report and Ratings, pages 43-45

Recommended	Rank	BRAND & MODEL	PRICE	SCORE
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A. THREE-DOOR FRENCH-DOOR BOTTOM-FREEZERS

<input checked="" type="checkbox"/>	2	LG LFXS32766S	\$4,300	85
<input checked="" type="checkbox"/>	3	GE Profile PWE23KMDES	\$3,200	84
<input checked="" type="checkbox"/>	9	Samsung RF28HDEDBSR	\$2,700	82
<input checked="" type="checkbox"/>	13	Kenmore Elite 74033	\$4,350	81
<input checked="" type="checkbox"/>	14	LG LFXS30766S	\$3,450	81
	18	Kenmore 70333	\$3,100	77

B. FOUR-DOOR FRENCH-DOOR BOTTOM-FREEZERS

<input checked="" type="checkbox"/>	1	Samsung Chef Collection RF34H9960S4	\$6,200	84
<input checked="" type="checkbox"/>	3	LG LMXS30776S	\$4,400	84
<input checked="" type="checkbox"/>	4	Samsung T9000 RF32FMQDBSR	\$4,000	83
<input checked="" type="checkbox"/>	5	Samsung RF25HMEDBSR	\$3,000	80
	7	Samsung RF23HSESBSR	\$3,500	76
	8	Whirlpool WRX988SIBM	\$3,400	74

C. CONVENTIONAL BOTTOM-FREEZERS

<input checked="" type="checkbox"/>	1	Kenmore Elite 79043	\$2,100	83
<input checked="" type="checkbox"/>	2	LG LDC24370ST	\$2,000	83
<input checked="" type="checkbox"/>	3	Kenmore Elite 79023	\$1,900	81
<input checked="" type="checkbox"/>	4	Kenmore 69313	\$1,200	80
<input checked="" type="checkbox"/>	5	Whirlpool WRB322DMBM	\$1,500	77
<input checked="" type="checkbox"/>	6	Amana ABB2224BRM	\$1,250	72
	7	Amana ABB1924BRM	\$1,000	71

Recommended	Rank	BRAND & MODEL	PRICE	SCORE
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E. SIDE-BY-SIDES

<input checked="" type="checkbox"/>	3	LG LSC22991ST	\$3,000	76
<input checked="" type="checkbox"/>	4	Samsung RS22HDPNSR	\$2,100	76

F. BUILT-INS

<input checked="" type="checkbox"/>	1	Thermador Freedom Collection T36BB820SS	NA	80
<input checked="" type="checkbox"/>	2	Jenn-Air JS42PPDUB[SS]	NA	80
<input checked="" type="checkbox"/>	3	Bosch Integra 800 Series B36BT830NS	NA	78
<input checked="" type="checkbox"/>	4	Thermador Freedom Collection T36BT810NS	NA	78
<input checked="" type="checkbox"/>	5	Sub-Zero BI42S[S]	NA	76

Dishwashers

Twenty-two of the top-scoring dishwashers are available, including 11 of the recommended models.
Report and Ratings, pages 46-47

		BRAND & MODEL	PRICE	SCORE	
Recommended	Rank				
	<input type="checkbox"/>	1	KitchenAid KDTM354DSS	NA	85
	<input checked="" type="checkbox"/>	4	Bosch Ascenta SHX3AR7(5)UC	\$1,000	81
	<input type="checkbox"/>	6	Thermador Topaz Series DWHD640JFM	NA	80
	<input type="checkbox"/>	7	Bosch 800 Plus Series SHX7PT55UC	\$2,000	80
	<input type="checkbox"/>	8	Bosch 500 Series SHP65T55UC	\$1,400	80
	<input type="checkbox"/>	9	Bosch 300 Series DLX SHX53TL5UC	\$1,300	80
	<input type="checkbox"/>	10	Miele Futura Crystal G5225SS	NA	79
	<input type="checkbox"/>	11	Bosch 800 Series SHE68T55UC	\$1,500	79
	<input type="checkbox"/>	12	GE Profile PDT750SSFSS	\$1,400	79
	<input type="checkbox"/>	13	Blomberg DWT55300SS	\$1,120	79
	<input type="checkbox"/>	14	Viking 100 Series FDW101	NA	79

		BRAND & MODEL	PRICE	SCORE	
Recommended	Rank				
		15	GE Profile PDT760SSFSS	\$1,700	78
		16	Blomberg DWT54100SS	\$1,030	78
		17	Thermador Emerald Series DWHD440MFM	NA	78
		21	Blomberg DWT55500SS	\$1,300	77
		22	Viking 300 Series FDW300	NA	77
		23	GE Café CDT725SSFSS	\$1,400	77
		25	GE GDF540HMFES	\$800	77
		26	GE GDT580SSFSS	\$1,000	76
		27	Thermador DWHD651JFP	NA	76
		29	Whirlpool WDT720PADM	\$700	75
	30	Kenmore 13202	\$650	75	

Ranges

Eight of the high-scoring ranges are available. Report and Ratings, pages 40-42

		BRAND & MODEL	PRICE	SCORE
Recommended	Rank			

A. SMOOTHTOP, DOUBLE OVEN (30-INCH)

<input type="checkbox"/>	3	Samsung NE58F9710WS	\$2,400	85
<input type="checkbox"/>	4	Maytag YMET8885XS	\$2,100	83

B. SMOOTHTOP, SINGLE OVEN (30-INCH)

<input type="checkbox"/>	4	GE Café CBC980STSS	\$3,000	86
<input type="checkbox"/>	5	Samsung NE58F9500SS	\$2,400	83

D. GAS AND DUAL-FUEL, DOUBLE OVEN (30-INCH)

<input type="checkbox"/>	1	KitchenAid KDRS505XSS	\$2,900	71
<input type="checkbox"/>	2	GE PGB950SEFSS	\$2,700	70

E. GAS AND DUAL-FUEL, SINGLE OVEN (30-INCH)

<input type="checkbox"/>	1	Samsung NX58F5700WS	\$2,400	79
<input type="checkbox"/>	2	Samsung NX58H9500WS	\$3,000	77

Autos Report and Ratings, pages 56-60

All of the tested vehicles are available in Canada. Listed by group, in order of overall score within group.

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
SPORTS CARS								
Ford Mustang (V8)	\$37,349-\$49,899	2.2	5.4	2.0	15.3	18.3	8.8	12.4
Ford Mustang (2.3 EcoBoost)	\$28,349-\$40,899	2.6	6.7	3.0	17.1	14.6	6.5	9.6
Dodge Challenger	\$29,995-\$71,890	2.3	5.7	2.6	15.9	16.8	8.8	11.8
PICKUP TRUCKS								
Ford F-150 (3.5L EcoBoost)	\$27,999-\$67,899	3.0	7.5	3.4	17.9	20.9	10.8	14.6
Ford F-150 (2.7L EcoBoost)	\$26,199-\$54,299	2.9	7.3	3.4	17.7	20.0	10.7	14.2
Chevrolet Colorado	\$19,900-\$36,550	3.1	7.9	3.6	18.1	18.8	9.1	12.8

Contact info How to reach manufacturers in Canada.

Amana
800-843-0304
amana.com

Blomberg
877-430-5253
blombergappliances.com

Bosch
866-442-6986
boschappliances.com

GE
877-994-5366
geappliances.ca

Jenn-Air
800-688-2002
jennair.ca

Kenmore
Contact local Sears
sears.ca

KitchenAid
800-807-6777
kitchenaid.ca

LG
888-542-2623
lg.ca

Maytag
800-807-6777
maytag.ca

Miele
800-565-6435
miele.ca

Samsung
800-726-7864
samsung.ca

Sub-Zero
800-222-7820
subzero.com

Thermador
800-735-4328
thermador.com

Viking
888-845-4641
vikingrange.com

Whirlpool
800-807-6777
whirlpoolappliances.ca