

Safety Rules: CR's Guide to Decks

How to keep your deck in tip-top shape and turn it into a cozy retreat

By Tobie Stanger
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Your deck is probably getting a good workout during this summer of staycations. It's where you grill and dine and relax with family, sure, but you might also be using it as your gym, camp-craft studio, and even your remote office. So you want to make sure it's safe.

Collapses and failures of decks, porches, and balconies accounted for about 2,900 injuries between 2016 and 2019, the Consumer Product Safety Commission reports. "You may think all your deck needs is a power-wash and stain every year or so, but a safety check should be part of routine maintenance," says Don Huber, Consumer Reports' director of product safety.

Here's how to make over your deck for safety, including how to find and fix structural problems and prevent injuries. We've got some simple tips for making your deck more cozy, too. For more information on decks, see [CR's ratings of more than 20 decking products](#).

Replace Fasteners and Rotted Wood

Over time, your deck takes a beating from the weather. So check that everything is secure and sound. Wiggle the deck and stair railings; if they're loose, tighten fasteners or replace them if they're rusty, Huber advises. Nail or screw down any nails or screws that you see popping up.

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If those fasteners won't go in, it may mean that the structural element underneath, such as a supporting joist, is damaged and needs replacement, says Mark Guthrie, chair of the building code committee for the North American Deck and Railing Association, an industry trade group. The wood, he explains, could be so soft from decay that it can't hold on to nails or screws.

Replace any decaying wood. How can you tell if wood is rotten?

"If you can poke a screwdriver in to the wood more than 1/16 of an inch, it's probably rotted," says Bruce Barker, owner of Dream Home Consultants in Raleigh, N.C., who has written deck inspection

guidelines for the American Society of Home Inspectors.

Decayed wood with [paint](#) or [solid stain](#) finishes may also look like they're lifting or flaking off, says Rich Handel, who tests decking for Consumer Reports.

Prevent Slips

If you're shopping for new decking boards, consider their slip factor. You don't want to fall if you're out on your deck after rain or a water-gun duel. [CR's decking tests](#) show that wood resists a slip best in wet and dry conditions, followed by aluminum decking. Some composite materials and plastic decking didn't perform as well, though.

Another way to reduce slips: Add outdoor area rugs. Look for those made from solution-dyed acrylic, says Tracy Morris, an interior designer in Washington, D.C. Because the dye is mixed into the acrylic solution before it's spun into fiber, the resulting material is colorfast, and water- and stain-resistant. "It's a high-quality material and isn't inexpensive," she says.

Here's a pro cleaning tip: Pull up the rug periodically to check for moss or algae, which—unlike mold—can grow on synthetics. Scrub affected areas with diluted vinegar. Press a towel over the wet spot where you've scrubbed to soak up moisture, then air-dry over the deck railing.

Check Under the Deck

You might not think to look under your deck, but it's important to make sure the ledger board, which attaches the deck to your home, is secure. A ledger that's not well-attached can break away from your home and cause a deck collapse. The safest ledger connection goes all the way through the wall to attach the ledger to your home's interior floor supports.

Decks built within the past five years are likely to use strong, new fastener designs that significantly reduce that risk. But if your house is older, consider having a contractor or professional deck inspector check out your deck's attachments. (This specialized task isn't part of a standard home inspection, so it may be something that hasn't been checked before.)

If you need to have new attachments, it could run you anywhere from around \$600 for a small, low deck connected to a house with wood floor supports to \$2,000 for a large, high deck attached to floor supports that aren't wood.

"It's expensive," notes Andy Happ, owner of Happ Contractors in Doylestown, Pa., "but it's better than a bunch of people pitching off the side of a house when the deck fails."

You may also need a contractor to replace or add flashing to deflect water from the ledger board. Otherwise, the ledger beam can weaken from moisture damage and sag or collapse.

Grill Safely

To prevent fire and smoke damage to siding, decking, and deck furniture, place your grill 2 feet away from railing, siding, and any wires, awnings, or other overhangs.

“You don’t want smoke and fumes to get into the house to damage items or sicken anyone inside,” explains Larry Cuifo, who tests grills for Consumer Reports.

Place the grill on a nonflammable grill mat (most we found online cost \$20 to \$90). Make sure any storage boxes—such as for lighter fluid, cleaners, and other hazardous materials—have childproof latches.

Also, trim any branches hanging above your grill. They can dry out over time and ignite, even without a spark, from the heat alone.

Light Up the Night

To ensure safety and visibility, municipalities usually mandate lighting around deck areas such as steps and landings, says Patrick Harders, a landscape lighting designer and co-owner of Sterling Lighting, an outdoor lighting maker in Sterling, Va. But avoid wall-mounted security floodlights. “You don’t need that ‘prison break-out’ look to make things safe,” Harders says.

Instead, choose softer lighting for a warm, inviting feel. Place uplights at the bottom of deck posts and staple strings of LEDs under railings, advises Teris Pantazes, owner of Settle Rite Home Services, a Baltimore-based home-staging company. You can illuminate steps the same way. Each activity area—seating, grilling, eating—should get its own lighting as well. Just be sure to check the UL, ETL, or IP rating of all your lighting to confirm it’s been tested and approved for outdoor and wet environments.

Some last pieces of advice: Keep in mind that town or other municipal codes might be more stringent—or more lax—than what we discuss here. And if you're uncomfortable assessing your deck yourself, consider having a deck builder or inspector do it; it typically costs \$200 to \$250, Barker says. Decks that are 10 years old or more should be inspected once every five years. If you live within a mile or two of a beach, up that to every year to ensure the salt water hasn't corroded your deck's fasteners.

Make Your Deck a Haven

Your deck can benefit from the same design principles used indoors, says Tracy Morris, an interior designer. If there's room, create discrete living areas—say, one place for lounging and another for dining—defined by area rugs and large potted plants.

Neutral colors work best for deck furniture and cushions because they blend into your deck's natural surroundings, Morris says. But be sure to create some contrast with throw pillows and accessories.

“Some of my favorite contrast colors are navy, hunter green, or deep purples,” she says. “They work with almost any home.”

Daryl Beyers, a container-plant expert at the New York Botanical Garden, prefers tall plant containers on a deck because they bring plants to eye level when you're seated.

“It can make you feel like you're sitting with the plants, not hovering above them,” he says. “Even on a small deck, a 3-foot-tall planter can have a small footprint. It's the height that matters.”