HOMEOWNER REPAIR GUIDE

MAINTAINING YOUR DECK

In 2003, a number of people in Chicago were killed when a third story deck broke loose where the deck framing met the building wall. Although there were a lot of people on the deck, the collapse was really caused by the failure of a plank (called a **"ledger board"**) that had partially rotted and split where the bolts attached it to the building.

This was not an isolated incident; deck collapses are more common than one might think. While there are decks that fail because they are not built to code specifications, the most common problem is lack of adequate maintenance. When a deck is refinished, the joists, ledger board, and posts are seldom coated with the waterproofing material. Joists – shaded by the planking above and unable to dry out – can remain wet for a long period of time and eventually rot.

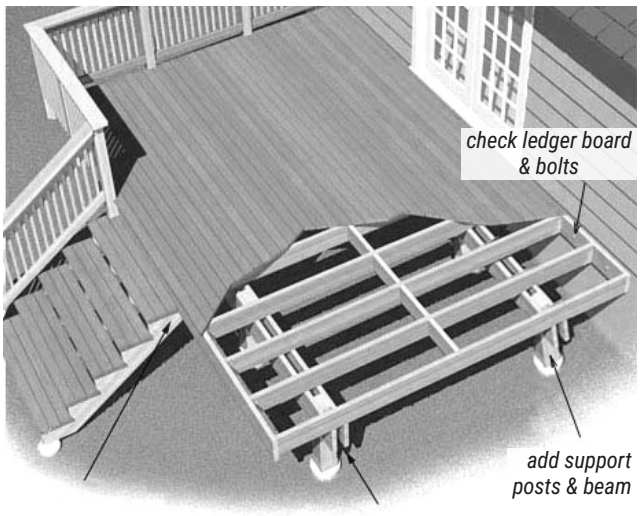
INSPECT YOUR DECK EVERY YEAR

It's vital to conduct an annual inspection of a wood deck, especially an older deck on long posts. Homeowners can usually do most of the maintenance required, but if a deck is more than six years old (or if the age is not known), it's wise to turn over the inspection to a professional who specializes in wood-frame construction.

CHECK THE WOOD

Start your inspection by checking the understructure to ensure the wood is solid *(see illustration)*. If you can push a screwdriver a quarter-inch into the wood, it's time to replace it. Do the same test with the deck planks, too. If you replace any rotted planks, use **galvanized or stainless steel screws** instead of nails, to prevent the plank from pulling up.

On the other hand, if the deck planking has split, don't bother replacing it unless you feel the plank flexing under foot. (Since treated lumber is generally quite wet when it's installed, splitting will be a natural occurrence as the lumber dries.)



What to check on the understructure

CHECK THE DESIGN AND CONSTRUCTION

In addition to checking the condition of the wood, look carefully at how the deck was designed and constructed. The safest decks are those that are over-built. For example, even if the design load is for 40 pounds per square foot and the span chart calls for 2 x 8" joists, 2 x 10s will give more strength. Similarly, where a plan may have one support beam, a second beam, or more, can be added. To attach the ledger to the house, **lag screws with washers** are

stronger than nails or drywall screws. (Here in the Snow Belt of northeast Ohio, it's not unusual for structures to collapse with a 3-to-5 foot wet snowfall, often breaking right at the ledger board.)

RAILINGS

It's important that the railings are well secured and the spacing between balusters narrow enough to prevent small children from slipping through the railing – no more than four inches.

CLEAN AND REFINISH

1. **Sweep.** Once you have checked the condition of the wood, you can work to renew its appearance. Start by sweeping off dirt and leaves with a broom (a stiff palmyra push broom works well for this job). Use an old hacksaw blade to scrape out any "crud" in the gaps between the planks.
2. **Clean.** You'll need to clean the surface of the deck before refinishing it. If you don't wish to use chemicals, pressure washing alone will clean the deck enough to prepare it for refinishing. But, if it's been a long time between refinishes, a commercial deck cleaning solution with **oxalic acid** (wood bleach) may be necessary to remove the dirt, gray coloring, mildew, and stains. Use a garden sprayer to apply the cleaning solution, and then work the solution into the wood surface with a scrub brush mounted on a broom handle. Let it sit for thirty minutes or so, and then wash off the deck. Grease stains (under an outdoor grill, for example) are tough to get out; a paste of **TSP** (TriSodium Phosphate) scrubbed into the stain will break up a lot of it. Finish cleaning by washing the surface with a garden hose or, preferably, a pressure washer.
3. **Dry and refinish.** Let the wood dry for a few days before applying the finish. There are many products available for the new finish. On the visible surfaces, you can use a **color stain water seal** that protects the wood from moisture and U-V rays, in addition to staining the wood. Be sure to coat the end grain of each plank. All the surfaces of the understructure should be treated with a **clear water seal** to prevent decay – especially the support beam and posts.

HOW LONG WILL A DECK LAST?

Even with proper maintenance, decks won't last forever. The life expectancy of an average deck, made with treated lumber, is 15 to 20 years. An annual inspection and periodic refinish is the best way to keep your deck attractive, protect your investment and prevent deck failure.

Home Repair Resource center

Home Repair Resource Center empowers homeowners to maintain their homes for sustainable and diverse communities.

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