



CHECK YOUR PORCH EACH YEAR

Each summer, it's a good idea to inspect the condition of your porch – a part of your house that is particularly vulnerable to attack from moisture and insects. Small problems, if not corrected, can soon lead to more expensive repairs.

The first part of your inspection is likely to be the least pleasant, as you'll need to crawl beneath the porch to check out the supporting structure. Look first at the **piers** that hold the weight of the porch. These piers can be made from wood, brick, stone, or concrete. Ideally, they should be supported by concrete **footers** that extend below the frost line, but in all too many older homes you'll find them resting directly on the ground. Especially in these cases, you may see signs of rot and water damage.

Wooden piers are in need of repair if you can push a nail by hand more than 1/4" into the wood. If the damage is not too extensive, you can reinforce the original piece by "sistering" two pieces of sturdy lumber alongside it, bolting them in place. If you are dealing with a severely deteriorated wooden pier, replace it with a new piece of pressure-treated lumber of the same size. Be sure to install a concrete footer beneath the new pier, to keep it from coming into contact with the ground.

With piers made from brick or stone, you'll need to check the masonry joints. If there are cracks or holes in the mortar, tuckpoint the joints and apply a masonry sealer, to prevent water from penetrating the mortar, freezing and expanding, and thus damaging the brick or stone.

Next, check to see if there are any gaps where the porch rests on the piers. If a small gap is present, you can fill it with a wooden wedge. A better alternative, however, is to jack up the porch to level it, and then build up any of the piers that may have settled.

While you're under the porch, check the **floor joists** and other support beams for rot or insect damage. Where the damage is minor, you can sister reinforcing pieces alongside the original beam, but replace any that are seriously deteriorated.

Look carefully at the **ledger board** (where the porch framework is attached to the house), because it is very important to the strength and stability of the entire porch structure. Check the condition of both the wood and the connecting hardware. Ideally, the ledger board should be attached to the house with lag screws and washers, instead of nails or drywall screws.

If you find evidence of insect damage or rot in any of the wood, it's important to correct the underlying cause – not just replace the damaged materials. An exterminator can help you control insect invasions. To prevent damage from water, there are several steps you can take: grade the soil away from the porch to keep water from collecting underneath it; install 4-mil polyethylene sheets under the porch to serve as a vapor barrier; and maximize air circulation by keeping all plants around the porch trimmed back.

Before you leave the crawl space, examine the **floorboards** from below (the first signs of rot are often most visible there), as well as the wood **apron** or **lattice** that surround the crawl space.

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You'll need to replace any rotted pieces. You can also attach hardware cloth (a kind of screening material) to the back of any lattice pieces to discourage critters from taking up residence under your porch.



Finally, you can crawl out from under the porch and examine the top of the floorboards. Pay particular attention to the edges of the floor, and to areas around the bases of railings and columns. If just a few boards need replacement, you can get new tongue and groove flooring at most lumberyards – although you may need to go to bigger establishments to match the dimensions of old-style flooring. Porch columns can also suffer from damage, especially around the base. If you need to replace an area of flooring beneath a porch column, a base under the column, or the column itself, you can jack up the porch roof a couple of inches with a hydraulic jack and two 2 x 4's screwed together, and then support the roof with one or more longer piece of wood wedged between the ground and the ceiling, so the column can swing free (*see separate handout on "Porch Columns."*)

Make sure all railings are in good condition and well secured. The spacing between the balusters should be narrow enough to keep a small child from slipping through – no more than four inches.

The last step in your annual inspection is to check the **expansion gap**, a narrow space between the porch floor and the house wall that allows the floor to expand during hot weather. This gap should be caulked periodically.