



REPAIRING EXTERIOR BRICK STEPS

Sometime today, you will probably walk up or down the steps outside your house without even noticing them. Seldom do we pay them any attention... until a loose brick falls into the cavity under your porch, or one of those beautiful sandstone treads breaks. If you could view your house through the eyes of a stranger, however, you'd see that steps in bad repair can ruin the first impression given by your home, and take away from its attractiveness.

There are many different types of steps, and one style is not necessarily better than another. The important thing is that the style of your steps relate to the type and style of your house. (Note that replacement of existing steps with a different style or material may require approval by your city's Building Department; check with them about the appropriate procedures.) The advantage to masonry (brick or stone) steps is that the materials don't deteriorate; however, the mortar holding the bricks together can fall apart in time, leaving them without normal support. Wooden steps, on the other hand, are subject to rot. So, there is no perfect material from which to make steps. The best approach is to learn to recognize the problems common to each type, so you can correct them before you have to replace the entire steps.

Problems with masonry steps usually start with the foundation. When a home is built, its foundation is dug deep into the ground. Unfortunately, steps are usually built on a much less substantial foundation. As the house settles over the years, the steps settle at a different rate. This situation usually produces a diagonal crack in the brickwork between the house and the steps. Unless you want to remove the steps, replace their foundation with a stronger one, and then rebuild the steps, there is little you can do except tuckpoint the crack when needed – digging out old mortar and replacing it with new. If the mortar deteriorates, then fairly quickly the bricks will loosen and fall out. Before you know it, your stone treads will crack and break, and they'll need much more substantial work to get them back into good shape.

A quick going-over once a year will help keep masonry steps in good repair. You may wish to tuckpoint in the fall, since the water and ice that get in between the brick joints in the winter does the most damage. If you go into the winter with the brickwork nice and solid, chances are you'll emerge in the spring in good shape.

Once the treads have broken, however, it becomes much more difficult to salvage the steps. Many steps have brick risers supported by the tread beneath them – so when a tread cracks, that support is lost, and the bricks start to shift out of alignment. In a few situations, you may be able to repair the broken areas without having to rebuild the entire unit. One common problem involves a sandstone tread or landing where a corner has broken off – often at the place where the handrail was anchored. If the broken portion is all in one piece, and if the piece can be supported by the riser underneath, then you can sometimes adhere the broken corner with vinyl patching cement or a two-part epoxy. (You won't be able to reattach the rail at that same spot; you'll need to readjust the railing to a new position.) If the broken corner can't be supported by the riser, however, you won't be able to reattach it permanently, and will need to have the entire tread or landing replaced.

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If the landing has cracked and started to collapse, but the rest of the unit is solid, you may be able to have a replacement landing cast in place from concrete. A form will have to be built to support the weight of the wet mix until it cures and hardens. Check with the your city's Building Department before undertaking this repair, to make sure their requirements will be met.

Masonry steps that are beyond preventive maintenance – with broken treads and/or many missing bricks – may need to be rebuilt. In most communities this is a permit job, and usually must be done by a professional. A new foundation will generally be needed, and you may have to add or change design elements (such as railings) to meet current code requirements.