

CONCRETE TIPS

Repairing minor concrete damage around the home is a project you can often complete in one day

Spring is almost here and that means warmer weather, fun in the garden and, of course, some repairs. In many areas, winter can take its toll on concrete walkways, patios, steps and even outdoor statuary and garden art. The freezing and thawing of the ground, as well as damage from rock salt and other ice melters, can make your outside areas look far different this spring than they did last fall. Or maybe this spring is the time to install that privacy fence you've been talking about since you moved in. Check out "On the Level" for some hints for keeping posts straight and sturdy when setting them in concrete.

Note: There are a few different brands and types of concrete on the market so be sure to talk to an employee at your local garden center about the best mix to use for your specific job.

Minor damage

Because it's extremely difficult to patch small cracks and chips using traditional concrete mixes, it's recommended you use a concrete crack seal or repair caulk when the crack or fracture is $\frac{1}{8}$ - to $\frac{1}{2}$ -inch wide. Crack sealer comes in liquid form and is most appropriate for use on horizontal surfaces. Concrete repair caulk is a thicker, textured sealant for use on vertical surfaces.

Horizontal surfaces. Begin by carefully cleaning the area to be repaired using a wire brush. Remove all dirt, concrete chips and organic matter from the damaged area. After shaking up the contents of your crack sealer tube, cut the tip of the bottle so the opening is about the same size as the crack you're filling. If the crack is deep, fill it to within $\frac{1}{4}$ inch of the surface with sand.



Apply the sealer in $\frac{1}{4}$ -inch layers and allow each layer to set overnight before applying the next.

Vertical surfaces. On hot days, cool the caulking tube in the refrigerator for an hour to make it less runny and easier to apply. Clean the area as described above, using a wire brush or similar tool. Cut the tip of the concrete repair caulk tube on an angle to make a $\frac{1}{4}$ - to $\frac{3}{8}$ -inch hole and insert in a standard caulking gun. Apply the caulk by pushing the tip over the damaged surface and forcing the bead of caulk deep into the crack, but do not apply any thicker than $\frac{3}{8}$ inch at a time.

Concrete repair caulk can also be used to seal joints where concrete and masonry meets wooden or metal framing. Simply fill the joint completely and slightly overlap the caulk.

Larger cracks

Wider, deeper vertical cracks will require patching with a cement-based product like quick-setting concrete, which has better bonding capabilities than traditional concrete mixes. Horizontal damage, including cracks and crumbling, pitted



Each issue, *Green Profit* organizes a ready-made class on livegood and hardgood topics in the form of a magazine page you can tear out, even giving it to customers who want questions answered, myths debunked and a reason to be in a garden environment, regardless of the season. You provide the customers and example products; we'll do the rest.

On the Level

Whether you're setting fence posts, a new mailbox or the latest basketball hoop for a little LeBron James in your family, a leaning tower is unacceptable. Here's a step by step plan for setting straight posts that will last for years to come. You can use traditional concrete mix, but fast-setting mixes are much easier. DIY gurus swear by fast-setting mixes and you will, too.

- 1** Dig a post hole three times the diameter of the post and one-third of the post height, adding six inches for the gravel base. For large projects (like the basketball hoop) that require a solid footing, follow the manufacturers recommendations concerning mounting hole depth and size.
- 2** Tamp the sides and bottom of the hole until firm and pour in six inches of all-purpose gravel to help with drainage.
- 3** Position the post, making sure it is plumb. Don't just eyeball it—dig out the old level!
- 4** Pour the fast-setting mix into the hole dry until it reaches 3 to 4 inches from the top. Be sure you recheck the post to make sure it's plumb, and brace if needed.
- 5** Pour water into the dry mix, allowing it to soak in. You will need about one gallon of water for each 50 pounds of fast-setting mix, depending on soil conditions.
- 6** Fill the remainder of the hole with the soil you removed.
- 7** Most fast-setting concrete sets in less than an hour, but wait at least four hours before applying a heavy load (like a basketball backboard) to the post.
- 8** For holes deeper than 2½ feet, fill to about 2 feet with the mix and water. Wait for the water soaks completely into the mix and then add the remainder of the mix and water.

Recommendations

- Use pressure-treated lumber or apply a creosote equivalent to prevent below-ground rot.
- Coat metal posts with a rust inhibitor before installing.
- Dig larger, dish-shaped holes for posts set in loose or sandy soil.



concrete can be repaired using vinyl concrete patcher. If you do not have a pointing trowel and finishing trowel for concrete work, be sure to pick them up before starting the job.

Vertical cracks. Clean the area well using a wire brush, hammer and chisel. If the crack contains grease and dirt, it's a good idea to use a concrete and asphalt cleaner on the area, as well. Make sure to dampen the area to be repaired before mixing the patching material. Mix the quick-setting cement as directed, keeping in mind the end result will be a stiff mix with the consistency of modeling clay. Press the mix as deep as possible into the area to be repaired using a pointing trowel until the area is completely filled. Use a steel finishing trowel to smooth the area and feather the edges to create a clean repair. Mist the repair area several times each day for better curing and a strong bond.

For best results, do not add too much water during mixing—mix only as much material as can be placed in 10 minutes. Be sure to keep your trowel clean and damp when applying cement, so the mix will not curl up on the tool.

Horizontal cracks and holes. For larger and wider damaged areas up to one square foot, it's recommended you use a vinyl concrete patch. This is an excellent product for repairing patches of crumbling or pitted concrete up to ½ inch deep. Vinyl concrete patch contains fine sand and vinyl resins and can be troweled to an extremely thin finish so your repair blends perfectly with surrounding concrete.

Begin by vigorously cleaning the surface with a wire brush to loosen and remove all damaged concrete. Use concrete and asphalt cleaner, if needed, and sweep the area carefully before beginning. Mix the vinyl concrete patch as directed and apply with a trowel to the area needing repair. Feather-edge the patching mix onto the surrounding concrete for a smooth repair, applying in ¼-inch layers. If the hole is deeper than ¼ inch, apply the patcher in stages, allowing each layer to cure for several days before applying the next.

For larger projects—patches between ½- and 2-inches deep—a sand mix is recommended and should be applied to surfaces already prepared with a bonding agent.

Ready for more?

Now that you've gotten the hang of working with concrete, the sky's the limit. Consider a walkway or patio for your next project. Molds are available to help you design colored, textured concrete areas without the hassle of laying and mortaring bricks. Simply mix and pour the slab, using a mold to create the illusion of bricks or stones. 🍃

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