

OPTIONS TO AVOID



Foundation & Crawl Space Repair Options to Avoid

Finding out you have a foundation or crawl space issue can understandably cause a great deal of anxiety. After all, this is your home we're talking about here. The things and people you hold most precious are all supported and protected by this structure and its foundation. So, upon discovering a problem, you naturally start searching the internet and asking friends on social media for solutions.

It becomes apparent fairly quickly that there is a wide variety of options when it comes to foundation and crawl space repair, including some that seem too good to be true in terms of cost. So, before you try to do it yourself, hire a local handyman or some other "Chuck in a truck," let's look at why going the cheap route is often much more trouble than it's worth.

Foundation Fixes, Good and Bad

If your home's foundation is sinking or settling, the best way to stabilize it is to physically connect it to competent, load-bearing soil or bedrock (there is no DIY option for this). And, the best way to do that is through the installation of piers. These long steel tube sections are either pushed



or mechanically screwed into the soil and are attached to your home's foundation with heavy-duty brackets. Once they hit bedrock or load-bearing strata, your home's foundation is stabilized. At this point it can even be lifted back to its original position in most cases.

Some contractors may suggest other less-expensive options, including concrete underpinning or concrete piercing. With concrete underpinning, soil is excavated from around your foundation. Then, larger concrete footings are poured beneath your home's existing footings. Once the concrete has cured, the soil is backfilled. This may seem like a logical choice; if

a footing is designed to carry the weight of the home, then a bigger footing should be better, right? Well, not exactly. The problem is, instead of extending beyond the problem soils, the new underpinning sits on top of them—just like your current footing. If the soil beneath these newly beefed-up footings is still moving, you've just added more weight—a lot more—to weak soils already struggling to hold up your home. And, when it comes time to fix it right, it will likely be much more expensive because all that new concrete must be removed first. Lastly, it should be noted that contractors who don't specialize in foundation repair may not know any other way to address the problem.

Concrete piers are another option that may seem to offer value but may not be worth the short-term savings. In this option, short, blunt concrete cylinders are pushed into the soil on top of one another, held together loosely by a wire. Shims are then placed on top of the uppermost concrete cylinder, and the soil is backfilled.

On the surface, it may seem a reasonable fix, since concrete is a very strong material. Unfortunately, this option likely won't solve the issue. Because these concrete cylinders are wide (usually six to eight inches in diameter), it's difficult to push them deep enough into the ground to get past the problem soil. That means your home may continue to sink. In addition, since there's nothing to guide the direction of the piers as they're pushed, they often aren't installed straight. Finally, though concrete is indeed strong, it can crack and crumble over time due to a variety of reasons (we've all seen cracked sidewalks and driveways, right?). This is why only a few contractors struggle with this approach.

Crawl Space Options

If you've noticed your floors sagging or bouncing, you may have a more serious problem lurking in your crawl space. The columns that support the girders and joists that hold up your floor may have been placed too far apart when they were constructed. Or, moisture from the surrounding air may have caused them to rot and weaken. In any case, you need to support your floor or it will continue to get worse.



SAGGING FLOORS



UNEVEN FLOORS



WEAK JOISTS

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The best way to do this is with a heavy-duty jack system that can permanently stabilize your floor and, in many cases, lift it back to its original position. The reason it's called a system is, the jacks alone can't do the job properly. They need to be attached at the top to a heavy-duty wood or steel girder. And, to adequately dissipate the massive weight of the structure and prevent the jacks from simply being pushed into the soil, each jack must be supported by a metal plate that in turn sits on a two-foot hole filled with crushed stone. Once installed, the jacks can be adjusted to lift floors back to their original position.

Some contractors may suggest other ways to shore up a sagging floor. One option is the installation of concrete block columns. In this method, concrete footings are poured throughout your home's crawl space. After they cure, concrete blocks

are stacked on top of the footings, sometimes with mortar placed between the blocks. After the mortar cures, shims are placed between the uppermost concrete block and the girder. The problem is, this method is extremely time consuming (concrete takes a long time to cure), and it's not adjustable. Plus, as with the concrete underpinning foundation fix mentioned earlier, this doesn't address the root of the problem—the soil beneath your home.

Other contractors may suggest light-duty jack posts or shims to "fix" sagging floors. You may even think it's a do-it-yourself project, since you can buy these light-duty jack posts at most big-box home stores. The problem is, light-duty posts were never intended to support the weight of live loads and load bearing walls. They have adjustable top brackets designed only to tighten them up against the beam above, not to lift an

entire floor. Plus, they're made of thin, unprotected or spray-painted steel that corrodes and weakens over time. And, as with block columns, these posts do nothing to address weak soils that can give way under their base. Shims are the cheapest way to address a sagging floor, but they're only a temporary fix. That means you'll find yourself repairing damage to upstairs finishes again and again. Plus, as you've probably guessed by now, these also do nothing to address the problem with your soil.

At the end of the day, you want to trust your home's foundation or crawl space repairs to an expert — not a jack-of-all-trades general contractor or fly-by-night handyman. Ask questions. Read reviews. And, make sure you get an in-depth quote and a transferrable warranty. You'll sleep better at night knowing you did.

