



PLASTER AND DRYWALL REPAIR

In most homes built before 1945, the interior walls were finished with plaster and lath. After WWII, drywall replaced plaster and lath, allowing for quicker and more uniform construction. Although the two products are different, repairs to plaster and drywall can be made in much the same manner.

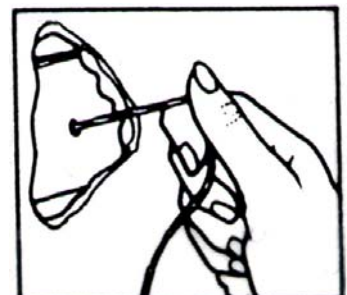
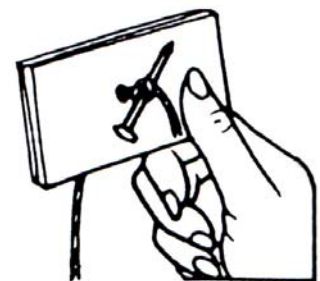
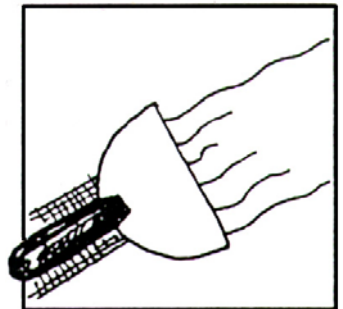
One important caution – you should *never* use an electric sander to sand drywall or plaster unless it is made specifically for this purpose, as the fine plaster dust will be sucked into the motor and ruin the ball bearings. To limit the spread of dust during large-scale sanding of plaster and drywall, you can use a **power drywall sander** specially made for this purpose, with a sanding head surrounded by a shroud and attached to a vacuum. For smaller sanding jobs, use a **hand-held pole sander**, with clamps on the head that hold a piece of drywall screen. The head is attached to the pole in such a way that sanding can be done from any angle without gouging the plaster or drywall. Drywall screen, readily available at most hardware stores, will work longer than traditional sandpaper, because you can knock the plaster dust from it to prevent the surface from becoming clogged.

Materials and techniques to repair plaster and drywall depend on the size of the problem. For small hairline cracks, use **interior vinyl spackling**. This product has some elasticity and is thus more likely to remain intact than plain patching plaster. Using a flexible putty knife, push the material into the crack as firmly and thoroughly as you can, smoothing it as you go.

As the cracks get larger than the hairline variety, you'll need to give the patching material more support. Apply **drywall tape** over the crack – either paper tape embedded in a layer of **drywall joint compound** (a form of spreadable plaster), or self-adhesive fiberglass mesh. Then, using a wider putty knife, spread a thin layer of the joint compound over the tape, tapering to nothing at the outer edges to blend in with the surrounding wall. You may need a second coat after the first has dried and been lightly sanded. After the second coat has dried, lightly sand it smooth. This process will keep most cracks from reappearing.

Holes can be treated in several different ways, depending on their nature. Fill in small ones with one or more coats of joint compound. (Allow each coat to dry before adding the next.) As holes get larger than the diameter of a paint can, you'll be better off installing some wall material in the hole before you add the joint compound. First, shape the hole into a square or rectangle for easier repair. Then, cut a piece of drywall to fit as a patch. (You may need to use 1/4" or 3/8" drywall to have the surface of the patch at the level of the surrounding plaster.) Install the patch with screws, nails, or construction adhesive; then, cover the seams with drywall tape and joint compound.

For a hole with no lath or other support to which you can attach a patch, you'll need to make your own backing piece before



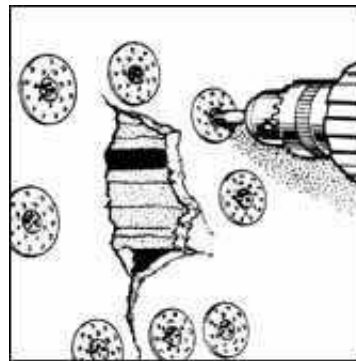
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patching. Cut a piece of drywall or scrap wood slightly narrower than your squared-off opening, and a few inches longer. Drill a hole in the center of this piece, and tie a piece of string through it (*see illustration on previous page*). On the ends that you cut to be longer than your hole, apply some construction adhesive along the front edges of the piece. Insert the backing piece through the opening, and use the string to pull it tight against the wall around it; the construction adhesive will glue the support piece to the back side of your hole. Tie the string to something that will hold the backing piece in place until it dries. Then, cut a patch to fit in the hole and glue it to the backing piece you previously installed. Use drywall tape and joint compound around the edges of the patch.

When patching a larger area with drywall, it's usually best to cut the damaged material back on each side to the center of the next wall stud, and square up the hole. Then, nail your patch to the studs, finishing with drywall tape and joint compound as described earlier.

Whatever size the hole, if you repair plaster and lath with drywall, you'll generally find the drywall patch is not as thick as the plaster around it. Use a thin layer of joint compound to build up the patched area to the level of the surrounding plaster.

If you don't want to use drywall for your repair, there are several products that can help you repair the plaster itself. If you have a smaller area of plaster that moves rather easily when you push on it, you can try stabilizing the plaster with **plaster washers** (*illustration right*). These devices are used with drywall screws to secure loose plaster to the lath behind it. (Plaster washers can also be used to stabilize any loose plaster around a hole, before you fill it in.) Cover with several thin layers of joint compound.



For a larger area of loose plaster, or an area that is extensively cracked, one option is to remove the plaster completely down to the lath, and replace it with new materials. Use a layer of **greycoat** (rough plaster) or **Structo-lite™**, let it dry overnight, and then dampen it with a sponge or spray bottle before applying a layer of **patching plaster**.

Another approach is to cover the entire wall with 1/4" drywall. Sometimes, this option can be easier than trying to patch the plaster, and will give you a smooth, stable surface. Before you start, remove any crown molding at the top of the wall. You should also take off the baseboards; if your baseboards are made of several pieces of wood, you can just remove the top molding strip. Don't worry that you won't be able to see the studs to which you'll be screwing the drywall; when you're removing the baseboard molding pieces, take a grease pencil and mark the location on the floor below of the nails fastening the baseboards to the studs. Install and finish the drywall as you normally would (*see separate handout on drywall installation*). If desired, you can also spread construction adhesive over the existing plaster before hanging the drywall, to help hold it in place.

Light sanding of all these repairs will blend them in. To avoid a "too smooth" patch and approximate the eggshell stipple of the original surface, use a **high-pigment water-base primer** (like Kilz™), applied with a semi-smooth (1/2" nap) paint roller. If you are painting over new drywall, cover the wall with one coat of **PVA primer**, then a coat of the high-pigment water-base primer, before the finish coat is applied.

Then, when you've painted, you'll wonder where the damage went!