



# Home Tips®



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## Q & A

### Sunken Garage Floor?

*Soon after we moved into our new house the garage floor developed a crack that runs the entire length, front to back. Half the floor on one side of the crack has dropped 2 inches. Can you tell us why the floor cracked and how we can fix it?*

Unless you are seeing signs of settling in other areas of the house, such as cracks in the foundation walls, sticking doors and windows, and cracked drywall, chances are the soil under the garage floor has settled because it was not properly compacted before the garage floor was installed. Once the soil settled, it no longer supported the weight of the garage floor.

To repair the floor, you can:

1. Break up and remove the old floor that has settled on one side of the crack, haul in clean sand to fill in where the soil has settled and pour a new floor.

After you remove the old floor, rent a flat-plate vibrator tamper to compact the soil as much as you can before you place the sand. Tampers rent for around \$50.00 per day. The sand should be compacted after it is spread out. The cost for a contractor to do the job would be at least \$3.00 per square foot.

2. Have the floor raised. This is done by drilling holes in the floor and forcing calcium carbonate and water under the floor. This mixture is forced in under pressure, causing the floor to rise. After the water in the mixture evaporates, a hard material forms that supports the floor - it's like adding sand without having to break out the floor. Concrete raising or "mud jacking" as it's sometimes called, will cost around one-half to one-third the cost of replacing the sunken slab.

Since concrete raising in this situation can exert excessive pressure against the home's foundation wall, make sure you hire an experienced contractor and ask for a certificate of insurance and references. Look in the phone directory under "Concrete Pumping Service" or "Concrete Contractors".

### How Do You Add Insulation To Finished Walls?

*I live in a very old house that has plaster walls and probably no wall insulation. Can I just add 1/2" rigid foam over the existing walls and glue new drywall to it?*

Energy consultants Ned Nisson and Mark Laliberte agree that this approach is a good one provided you use 1/2" foiled backed foam (foil on both sides) and make the walls as airtight as possible. Foil backed foam will provide a 3.6 R-value and act as a good vapor barrier.

To make the walls airtight, you need to apply a bead of silicone caulk around all electrical boxes. The caulk should go between the outer wall of the electrical boxes and the foam. Also apply caulk to plug the holes inside the electrical box where the wires enter. A short length of tubing fastened to the end of the caulk tube tip will make it easier to get the caulk into the electrical box.

Make sure you turn off the electricity at the circuit breaker before working around the electrical boxes. Pulling out the outlets and switches will make the job easier. Seal around the windows and doors by applying a bead of caulk between the foam and the window or door frame. Caulk the seams between the sheets of the foam insulation and along the ceiling and floor too.

Instead of gluing the new drywall to the foam, use 2" to 1/2" drywall screws. It is okay to glue the foam to hold it in place until the drywall is installed.

### Caulking Lap Siding?

*My house has horizontal cedar lap siding and to cut heat loss, I would like to caulk where the siding overlaps. Is this a good idea?*

No, it's not. Heat loss through the siding at this precise point is negligible. Caulking might cause other problems, such as trapping moisture behind the siding, which could cause the paint to peel and blister or the siding to actually deteriorate. The bottom seam is the best place for the moisture to escape.

### How Do You Set An Attic Fan?

*We have installed an attic exhaust fan. The thermostat can be set anywhere from 60 degrees to 120 degrees F. Are there any guidelines I can follow for setting the temperature?*

There do not seem to be any hard and fast rules on this matter. Some energy experts agree that unless the fan manufacturer gives specific recommendations, you should set the thermostat at 120 degrees because at this setting, the fan will run the least amount of time. Trying to cool your attic

