## REPLACING A ROTTEN FLOOR

The included video will show you the details of repairing a rotten floor underneath your toilet. For repairing floors in other rooms, the following pages will guide you.


First remove the existing floor covering. In many older homes, the carpeting is layed underneath the walls. So to remove the carpeting, it must first be cut along the walls with a utility knife.

Next, remove any carpet bars, the closet doors and the bottom track to the closet door.


Also remove the floor registers. Most are taken out by removing two screws and then prying up.


Roll back the carpet and then remove. When removing carpet, open a window for fresh air. It's also a good idea to wear a mask for protection against airborne mold and


With the subfloor now exposed, damage can be inspected.

The floor in this picture appears to have been repaired one time before. Have to admit a poor job was done as at least one seam has no blocking.


IMPORTANT NOTE: In some rare instances, your subfloor may not be screwed directly to the floor joists, but instead screwed to 1x2's nailed across the floor joists. Inspect for these before doing any cutting. You DO NOT want to cut the $1 \times 2$ 's.


Determine the direction and location of the floor joists. In most cases, the joists run across the width of the home. Generally you will find a joist at the seams of the subfloor. If you're unable to determine the location of the floor joists, cut an inspection hole and feel for the joists with your hand. Again, check to be sure that your floor isn't screwed to $1 \times 2$ 's, as mentioned above.


If replacing the floor along a wall or an entire room, cut along the edge with a circular saw. To cut, we put the saw guide against the wall and cut. This left 1" or so of old flooring. If the old flooring isn't rotten around the edges, this may be OK.


A sawz-all works good for cutting up next to the wall. Be constantly checking for pipes and wires.


For easy removal of debris, set a dump trailer right outside the window. Throw the debris out the window into the trailer.


For easiest removal of the old floor, cut down inbetween each floor joists with a circular saw. We prefer to work in sections.


Pull up the cut pieces and throw out the window into the dump trailer. If the flooring is glued to the joists, the pieces may not come up easily.



Replacing the floor underneath a toilet generally involves cutting off the toilet flange, and installing a new one after the new floor is installed. See our 30 minute how-to video for more details.


Clean up the top of the joists by removing all the staples and nails. If the old floor was glued, then scrape away any remnants stuck to the joists by using a chissel. Take the proper time and do a good clean job.


When installing the new plywood flooring, all edges of the plywood need to be supported by a $2 \times 4$. At this point notice on the right that there's no joist along the edge of the wall to support the new flooring. To add a joist, simply screw a 2 x 4 to the existing joist which may be slightly under the wall. In some cases it may take two $2 \times 4$ 's to make the floor joist extend out far enough from under the wall to offer support. $2 \times 4$ supports should also be added between the joists at the seams


The first section is now ready for new $3 / 4$ " plywood subflooring. Laying the floor in sections may be easier than ripping out the whole floor at once. Plywood offers much greater strength than partical board.


Notice how some of the joists look wider than others. This is called a t-joist, and some factories use these at all the seams. The top of the tee is a strip of subflooring about 3" wide. If this strip appears in good shape, leave it. Otherwise, replace it to keep all the joists the same level.

Blocking should also be added wherever two pieces of subflooring meet. Nailing $2 \times 4$ 's as shown left work great. Air nailers make quick work of adding blocking.


With the floor opened up, this is a great time to beef-up the insulation underneath. Also do any minor belly repairs. When adding insulation, do not smother any waterlines. Keep any added insulation underneath the waterlines so heat from the floor can reach the lines.


After measuring and cutting the new flooring, construction adhesive should first be applied to the tops of all the joists. This will help minimize floor squeaks.


After applying the adhesive, lay down the first piece of plywood flooring and screw into place using $2^{\prime \prime}$ galvanized screws. Screws are preferred over nails as they are less likely to pop.


Screw flooring to the floor joists using 2" galvanized screws. Do not nail flooring.


Cut and screw the last piece into place, which is often the piece by the door.


Wow, a job well done!
Ready to lay carpet or install vinyl flooring.


A leaking window was the reason that a large section of the floor in this hallway needed replacing.

In summary, the steps to repairing a soft or rotten floor are:

1. Remove or roll-back the floor coverings.
2. Mark out the area to be removed, following the floor joists wherever possible.
3. Cut or pound with a hammer some small holes.
4. Look and feel for waterlines, electrical lines and anything else that you need to avoid.
5. Cut out the area of the damaged floor.
6. Add blocking so every edge and seam of the new floor will be solid.
7. Check and add any new insulation to the belly. Don't put insulation over any waterlines.
8. Measure, cut and screw down the new floor.

9 . Roll back or replace your floor coverings.

