



# Home Tips®



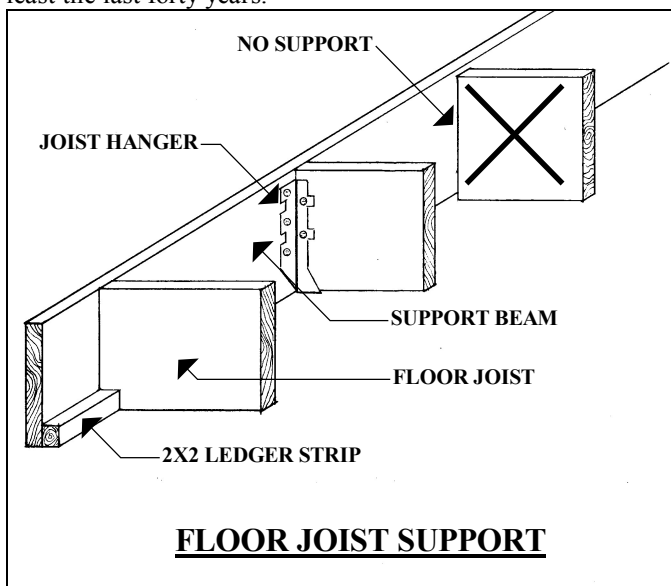
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## Q & A

### Floor Joist Support?

*According to a friend of ours, all deck floor joists must be supported at the ends of the joist. Our deck floor joists are not and we have not had any problems. Why is this needed?*

First of all, all floor joists must be supported on each end of the joist by either a 2x2 ledger strip or by a metal joist hanger. This is required by the building code (*CABO 1 & 2 Family Dwelling Code, Section 502.4.2*) and has been for at least the last forty years.



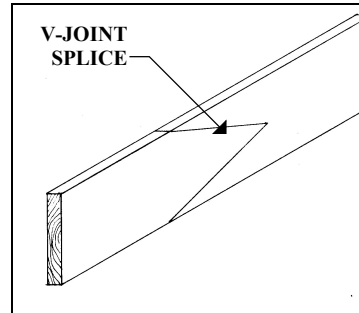
Most of the time an unsupported joists will not have a problem. An unsupported floor joist normally has only a couple of nails holding it in place and the nail could pull out if the load on the joist is heavy enough. Normally a family of four would not load the joist enough to cause a problem. The problem starts when you have the family reunion and all of a sudden you have 35 people standing on your deck. The extra weight could cause the deck to pull away from the house or the floor joists to collapse. That is why you need support under the joists and make sure that the deck is bolted to the house structure.

Most retrofits can be accomplished by installing metal joist hangers at the ends of the joists. Just nail the hangers to the support beam and to the floor joist. Be sure to install a nail into each hole of the hanger. Also, inspect the deck once a year to be sure everything is holding together properly.

### V-Joint Splices?

*Some of our roof framing has unsupported V-Joint splices. What is a V-Joint splice and why does it need to be supported?*

The roof framing today is much more complicated than the framing of the past. The roof pitches are steeper and the length of the framing members must be longer. The main support beams in the roof are the ridge, hip and valley rafters. Sometimes the installed length of these members can exceed the normal length of the lumber. When this happens, the



framer will take two pieces of lumber and splice them together. The most common splice is called a "V-Joint" splice. The splice looks like a V that is turned on it's side. This is a good method of splicing because the joint is very strong. However,

since the member is a beam and is carrying much of the roof load, the splice must be reinforced or supported by a post.

Adding 48" lengths of 3/4" plywood on both sides will

reinforce the splice. If the splice is existing, you may not be able to add plywood on each side. The solution is to add a "Tee" post under the splice. A double 2x4 Tee is good up to eight feet in length. A double 2x6 Tee is good up to sixteen feet in length. The support post must be supported by a beam or load bearing wall. You must not support the post by the ceiling joist or the load will make the ceiling sag or bow. A properly supported splice will insure the splice will not break or fail and will prevent sagging at the joist. Remember: *All beams must be supported at any splice.*

