



Tree houses are for everyone with imagination. Elevate your building skills with these tree house building tips from experienced builders, including attachment techniques, site choice, assembly techniques, design ideas and more.

Climbing trees has always been part of human history, allowing us to escape floods, saber-toothed tigers and intruders (especially parents with chores in mind). Building tree houses has long been part of human history, too. In that spirit, we've gathered tree house building tips, project ideas and photos from *TFH* readers and professional tree house builders. Maybe something here will inspire you to build the tree house of your dreams, for the special kids in your life or as a way to escape from modern day saber-toothed tigers and chore-requesting spouses. Enjoy!

"You get a different perspective when you're up in a tree. First of all, nobody can find you because nobody ever looks up. And when you're up there, you're able to look up, down and all around—it's another world up there." Michael Garnier, professional tree house builder

Building Tip 1: Site considerations

Choose a healthy, long-lived hardwood for maximum support, with load-bearing branches at least 8 in. in diameter (larger if the species is a softwood).

The best trees include maple, oak, fir, beech and hemlock.

You don't have to build it very high, just high enough so nobody gets a bump on the head when walking underneath it.

Building Tip 2: Keep weight and stability in mind



Single trunk construction

When building on one main trunk, level the main platform by cantilevering the beams and supporting them from below.

Build the platform as close to the trunk as possible and add diagonal bracing for extra strength to support uneven loads.

Put the load over the base of the tree, not on one side.

For heavy tree houses, consider spreading the weight among several trees.

A tree house will act as a sail in strong winds, which can add a large load to the tree's roots. In high-wind areas, build your tree house in the lower third of the tree.

"I built a tree house for my kids in our backyard (Photo). It was tricky getting the roof in place and, of course, nothing is square. They drew the wall design on regular paper, and we transferred the pictures to the walls, using a grid method. We replace the old pictures with new ones each year." Sean Milroy

Building Tip 3: Don't Restrict Tree Growth



Leave gaps around the tree

To accommodate tree movement and growth, allow gaps around any branches or trunks that penetrate the tree house.

Don't constrict branches with rope, straps or wire. This can strangle the tree.

Add spacers between the beams and the tree to allow movement.

Use extra-long large bolts. This leaves most of the shaft exposed so you can mount items on the ends and lets the tree grow over the shaft (see "Use the Right Fasteners," Tip 6, below).

Allow a 2-in. gap around the tree if it passes through the floor and a 3-in. gap if it passes through the roof (photo).

Building Tip 4: Level the floor



Level and sturdy

To keep a large tree house stable, center the load over the trunk and spread the weight among several branches.

It's much easier to build the rest of the structure if the floor is level and can support the entire weight of the tree house. Consider these methods:

- Lay beams across the branches and shim until level.
- Run the beams between trunks of different trees.
- Cantilever the beams out from a single trunk and support them from above or below.

"I wanted my kids to experience the same fun I had in my tree house as a kid but without the risk of killing themselves—like I nearly did." Brenton LaFleur

Building Tip 5: Build sections on the ground and hoist them into position



Photo 1: The big lift

It's easier and safer to fabricate the main sections on the ground and then hoist them into position



Photo 2: Piece by piece

If branches penetrate areas of the tree house, complete the construction up in the trees.

From one tree house builder:

"I built it in my driveway and used a friend's backhoe to lift it up on the joists I'd hung in the trees (Photo 1). The morning of 'the big lift' was quite exciting. We served bagels

and coffee in the driveway for people who came to watch.”

Mike Whitaker

And from another: “I assembled the platform and house on the ground, then disassembled them. After attaching the supports to the trees, I lifted the platform piece by piece and assembled it on the supports (Photo 2). An extra set of hands was needed only to raise the four walls and two roof sections. Final assembly took place in the trees.”

Bob Lackey

Building Tip 6: Use the right fasteners



Floating bracket support

Allow for flexible supports, especially if you use more than one tree, so that trees can move in the wind. Special floating brackets allow the tree to sway.



Heavy duty custom bolt

Large, strong custom bolts can support tree house beams with only one puncture point in the tree. These specialty tree house fasteners (known as TABs or GLs) are worth considering if you want your tree house to last more than a few years, you want to keep tree damage to a minimum and the tree house you're building is large.



Specialty fastener

Minimize tree damage by perching beams and braces on top of specialty fasteners instead of pinning them to the tree.

Don't run bolts through the tree. Lag bolts cause less tree damage than through bolts.

Don't use too many fasteners. One large bolt is better than many screws or nails. You get the same strength but with fewer puncture wounds to the tree.

Whenever possible, perch your tree house on top of fasteners rather than pinning beams to the tree. This gives the tree room to move and grow.

Even for smaller, lighter tree houses where the load is spread over three or four attachment points, consider using 1-in.- or 1-1/4-in.-diameter lag bolts.

You can order floating brackets and tree house fasteners from specialty suppliers such as garnierlimb.com or treehousesupplies.com or special-order them from home centers (Photos). These bolts are pricey (about \$100 each) and often require special tools. But they allow the tree more room to grow (they can support heavy loads up to 5 in. from the tree) and they hold more weight than normal bolts.

Building Tip 7: Checklist of cool accessories (to buy or make)



Water Toys

Zip lines

Rope swings, ladders and bridges

Speaking tube

Periscope

Clothesline pulley with bucket between tree house and kitchen for frequent snacks (or to lower to the ground to fetch provisions)

Pirates' treasure chest

Flag

Binoculars

Tennis ball/potato launcher

Water cannon

Fire pole or slide

Trap door

Solar-powered lights or lanterns

Fold-down benches and tables

Building Tip 8: Beware of the dark side of tree houses



Building a tree house is a wonderfully whimsical and romantic idea. But it's important to go into it with your eyes open. Keep the following issues in mind:

Tree damage

Tree houses do damage trees. Foot traffic compresses the soil, which is bad for the roots. Adding weight in the branches can also stress the tree roots, and fasteners can cause infection. Most trees will survive this abuse, but think twice before you build in a treasured tree.

To minimize tree damage:

- Consider using one or two supports to take stress off the tree.
- Make the fewest punctures necessary to support the tree house safely. Any damage to the bark of the tree is a potential entry point for disease and bacteria.

- Don't put fasteners too close together, which can weaken that section of the tree. Use at least 3/4-in. bolts spaced at least 18 in. apart vertically and 12 in. apart horizontally.
- Avoid slinging cables and ropes over branches. They cut through the bark as the structure moves.

Neighborhood concerns and municipal regulations

Do you need a building permit? It depends on local laws and the nature of your tree house. If you're considering building one that will be visible to your neighbors, discuss it with them in advance to avoid problems. Often, a municipality becomes involved after a neighbor complains. Stay away from boundary lines and don't build your tree house where it will infringe on a neighbor's privacy.

Injuries

Kids can get hurt playing in a tree house. Don't build higher than 8 ft. and make sure to build safe, strong rails. Also, nobody should be in a tree house in high winds or lightning.