

STEP-BY-STEP DIY GUIDE

Chain Link Fence

Installation & Gate Guide



A complete, step-by-step guide to installing a chain link fence and hanging a chain link gate, from planning and layout to stretching the fabric and hanging the gate.

Intermediate • **1–2 Days** • **2 Guides · 23 Steps**

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Part 1 — How to Install a Chain Link Fence

Difficulty: Intermediate **Time:** 1–2 days **Cost:** Budget-friendly

Installing a chain link fence is a rewarding project most homeowners can finish in a day or two, depending on the size of the area. Of the many fencing options available, chain link is among the most affordable and durable. It is built from a metal chain link fabric, or mesh, that attaches to a series of steel posts using specialized fittings. Follow the steps below to install your fence with confidence.

1 Prep the Project

A successful fence starts with good planning. Take care of these details before you begin:

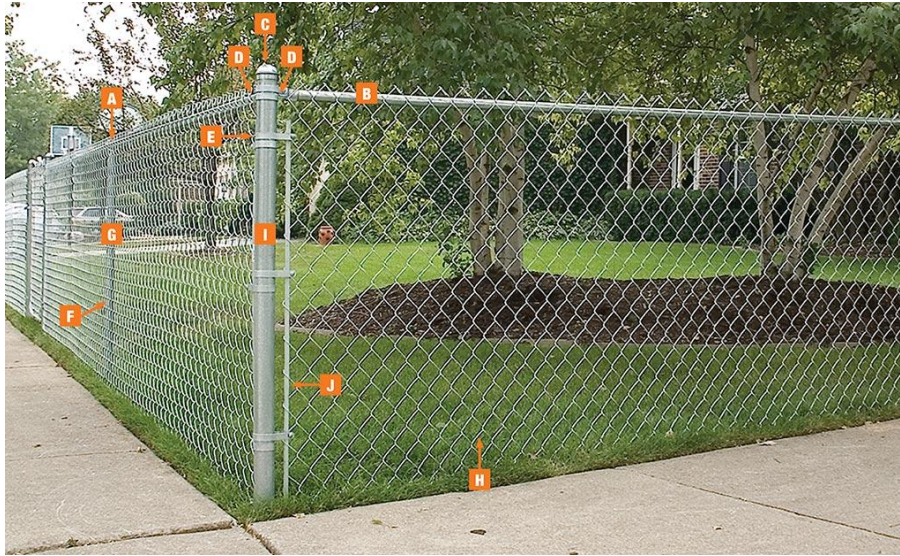
- **Check local codes and permits.** Many areas regulate fence height, placement, and other factors. Contact your local building department to find out whether a permit is required.
- **Confirm your property line.** Decide where the fence will sit relative to your property line. Your local assessor's office can help you locate it.
- **Choose size and material.** Fence height is set by the fabric. [Chain link fabric](#) is sold by the linear foot, in rolls 4, 5, or 6 feet tall. Galvanized steel is strongest; aluminum is lighter. Buy enough to cover the full perimeter, minus gate openings.

Tip Share your plans with adjoining neighbors early to head off any future disputes.



Plan before you dig.

2 Gather Your Materials



The main components of a chain link fence.

Knowing your parts is half the battle. Here is what a typical chain link fence requires:

- A. [Line Post Cap](#) holds the top rail in place. Use one per line post.
- B. [Top Rail](#) runs along the top of the posts. Buy the same linear footage as your total fence length.
- C. [End Post Cap](#) is also called a terminal cap. Use one per end post.
- D. [Rail Ends](#) cap the rail at each end, gate, and corner post. Use one per end post, one per gate post, and two per corner post.
- E. [Tension Bands](#) hold the tension bar. The quantity depends on fence height: for a 4-foot fence, use 3 per end or gate post and 6 per corner post; for a 5-foot fence, use 4 and 8; for a 6-foot fence, use 5 and 10.
- F. [Tie Wire](#) ties the fabric to the top rail and line posts. Use one every 24 inches along the top rail and one every 12 inches on each line post.
- G. [Line Posts](#) support the top rail and fabric. Space them no more than 10 feet apart.
- H. [Tension Wire](#) adds rigidity along the bottom of the fabric. Buy the same linear footage as your total fence length.
- I. [End and Corner Posts](#) anchor the fence and add rigidity. Use one at each end and each corner, and two per gate opening.
- J. [Tension Bar](#) is a vertical bar woven into the ends of the fabric. Use one per end and gate post, and two per corner.

A few additional pieces to consider:

- [Top Rail Sleeve](#) joins two runs of top rail. Use one for every two rails you need to connect.
- [Gates](#) are sold pre-assembled. Use one per opening, or two for a double opening.

- [Gate Post Hinges](#) mount to the post. Use two per swinging gate.
- [Gate Frame Hinges](#) mount to the gate. Use two per swinging gate.
- [Brace Bands](#) hold the rail ends and sit just above the tension bands.

Tools you'll use Tape measure, mason's line and batter boards, spray paint, [post hole digger](#) or two-person auger, level, [come-along cable puller](#) and stretcher bar, [socket wrench](#), hacksaw or pipe cutter, metal file, [pliers or wire cutters](#), and a rubber mallet.

3 Lay Out the Fence

Most chain link projects begin by establishing an accurate layout.

- Set the fence about 4 inches inside your property line to avoid encroaching on a neighbor. Your local code may specify a different setback.
- Lay out the perimeter with batter boards and mason's line. If a run parallels the house, set that line first, then run perpendicular lines to complete the perimeter, crossing at the corners.
- Square each corner with the 3-4-5 method: measure 3 feet along one line and 4 feet along the perpendicular line, marking each. The diagonal between the marks should measure exactly 5 feet. Adjust the lines until it does.
- Mark post locations with spray paint, spacing line posts no more than 10 feet apart.
- At [gate openings](#), leave an extra 3 3/4 inches between posts for the hinges and latch. Check your gate's instructions for exact measurements.

Safety First Before you dig, call 811. Your local utility companies will mark buried water, gas, and power lines for free.



Measure and square before setting anything.

4 Prepare the Post Holes

Posts come in two diameters: 2 3/8 inches for corner, end, and gate posts, and 1 5/8 inches for line posts. Use a post hole digger or a two-person auger.

- Dig each hole about three times wider than the post: roughly 6 to 8 inches across for end and corner posts, and 4 to 6 inches across for line posts.
- Make each hole about one-third the length of the post deep, plus 4 inches for a gravel base.
- Add 4 inches of gravel to every hole and tamp it firm with a hand tamper or a 4x4 post.
- Plan to set the end, corner, and gate posts in concrete. Leave the line post holes empty for now.



Dig each hole to the right width and depth.

5 Set the Posts

Setting the end, corner, and gate posts in [concrete](#) is the key to a strong, long-lasting fence. Make sure they are plumb and the concrete is fully cured before moving on.

- Mix the concrete to the consistency of thick cake batter, following the manufacturer's directions, or use a ready-mix product.
- Set each post in the wet concrete and check it with a level. Have a helper hold it plumb, or brace it with stakes.
- Fill each hole with concrete, checking for plumb every few shovelfuls and adjusting as needed.
- Slope the top of the concrete so water drains away from the post.
- Let the concrete cure for two to three days, or per the manufacturer's instructions.
- Leave the line post holes empty and the line posts out for now.



Set terminal posts plumb in concrete.

6 Attach Tension Bands and Gate Hardware

Tension bands hold the tension bar and give the fabric its vertical rigidity.

- Slide the tension bands onto each end, corner, and gate post. Per end or gate post, use 3 for a 4-foot fence, 4 for a 5-foot fence, or 5 for a 6-foot fence.
- Add [gate hinges](#) and latch hardware to the gate posts at roughly their final positions. Hinge height depends on your gate's size and design.
- Slide a brace band over each end and gate post, and two over each corner post.
- Drive an end post cap onto each end, corner, and gate post with a rubber mallet.



Slide the bands on before the caps.

7 Install Caps and Rails

With the terminal posts set, add the line post caps and run the top rail.

- Drive a looped line cap onto each line post with a mallet, then set the posts in their holes without filling yet.
- Bolt a rail end to each brace band, tightening just enough to hold it. Feed the top rail through the looped caps.
- Cut rails to length with a pipe cutter or hacksaw. To extend a run, join rails with a tapered end or a top rail sleeve.
- Deburr every cut end with a file.
- Set the rails into the rail ends, raising or lowering each cap to the final height of the mesh, leaving about 2 inches of clearance at the bottom.
- Tighten the brace bands to lock in the rail height.
- Fill around the line posts with dirt and tamp firm, keeping each post plumb as you go.



Feed the top rail through the looped caps.

8 Unroll the Fabric and Insert a Tension Bar

- Lay the chain link mesh on the ground along the outside of the fence line.
- Weave a tension bar vertically through the links at the end of the mesh.
- The bar stiffens the end of the fabric and gives you something solid to attach to the post.



Roll the mesh out along the fence line.

9 Attach the Tension Bar to the Post

- Stand the mesh upright and slide the tension bar into the openings on the tension bands.
- Run a bolt through each tension band and, with a socket wrench, secure the bar to one end post.
- Position the mesh so it overlaps the rail by 1 to 2 inches and sits about 2 inches above the ground.



Bolt the bar into the tension bands.

10 Stretch the Fabric

Chain link fabric must be pulled taut or it will sag. Use a [come-along cable puller](#) and a stretcher bar.

- Weave a stretcher bar into the mesh about 3 feet short of the corner or end post you are working toward.
- Hook the come-along to the stretcher bar.
- Crank slowly until the mesh loops move no more than 1/4 inch when you squeeze them together.



Pull the fabric taut so it won't sag.

11 Secure the Fabric

If the mesh shifted or distorted while stretching, tug it back into shape. Without releasing the puller, weave a tension bar through the mesh close enough to bolt into the tension bands on the nearest end post.

Tip This job goes much faster with a helper or two.



Set a tension bar before releasing tension.

12 Remove Excess Mesh

To trim off any extra mesh between the tension bar and the end post, open a loop at the top and bottom, then twist and pull the strand free.



Twist a strand free to trim the excess.

13 Tighten the Tension Bands

- Pull the tension bar into the tension bands on the end post by hand.
- Tighten the band bolts with a socket wrench.
- Release the come-along and remove the stretcher bar.
- Repeat the unrolling, stretching, and fastening process along each remaining side of the fence.



Draw the bar in and tighten the bolts.

14 Tie the Fabric to the Rails

- Bend one end of an aluminum tie wire into a hook and catch the bottom strand of a loop just above the rail.
- Wrap the tie around the top rail, pull it firm, and twist the end back onto the mesh.
- Space ties about every 24 inches along the top rail and every 12 to 16 inches down each line post.



Tie wires hold the fabric to the rail.

15 Finish the Fence

Finish by securing the bottom of the fabric.

- Thread tension wire through the bottom loops of the mesh and tighten it around the end posts.
- Wrap the wire around itself several times to lock it in place.
- Alternatively, attach the tension wire to the mesh every 2 feet or so with hog rings.



Secure the bottom loops to finish.

That's it. You've installed a chain link fence. It's a budget-friendly way to define your property, keep pets contained, and add security. For more privacy, weave [privacy slats](#) diagonally through the mesh. Don't have every tool? You can [rent tools](#) for the job, and if the project isn't for you, professional [installation services](#) are available.

Part 2 — How to Hang a Chain Link Gate

Difficulty: Intermediate **Time:** Under 2 hours



The parts of a chain link gate.

Chain link gates come two ways: pre-assembled and ready to hang, or flat-packed for assembly. Pre-assembled [gates](#) are faster to install, but building one from parts is quick and straightforward too. This section covers both assembling and hanging a chain link gate.

1 Assemble the Gate Frame

Start by sliding the pieces of tubing together to form the frame. Attach the mesh by slipping [tension bands](#) onto the frame, spaced evenly from top to bottom. You'll need at least three tension bands per tension bar; if the gate is more than 4 feet high, use four or more depending on its size.



Slide the tubing together, add bands.

2 Position the Tension Bar

Insert a [tension bar](#) through the end loops of the mesh, threading it through the entire width. The tension bar holds the chain link in place.



Thread the bar through the full width.

3 Attach the Tension Bar

Attach the tension bar to the tension bands on one side rail. Then thread a second tension bar into the [mesh](#), close enough to the other side rail that it holds the mesh taut once fastened. Unhook the strand just outside the second bar and pull it out to remove the excess, clipping it with pliers or [wire cutters](#).



Fasten the bar to one side rail.

4 Attach the Second Tension Bar

Pull the mesh and the second tension bar tight, then slip the bar into the tension bands. If the mesh isn't tight enough, unhook the bar and move it into the next set of loops until it reaches the tension you want, unraveling any excess mesh. Hook the bar back into the bands and trim any remaining mesh with wire cutters.

Tip Ask someone to hold the mesh tight while you fasten the nuts and bolts.



Pull the mesh taut, then slip the bar in.

5 Tie the Mesh

Neaten the top and bottom of the mesh by tying it in place. The mesh should extend about 1/2 to 1 inch above the top row of tubing; cut it there with [pliers](#) at the first knuckle and bend the sharp ends back down. Secure the mesh with fencing ties, using two per side on a 4-foot-wide gate, one at each cross member. For gates wider than 4 feet, add an extra tie to reduce wear.



Tie the top and bottom for a clean edge.

6 Hang the Hinge Straps

To prepare the gate for hanging, install the [hinge straps](#). Note the flat and curved sides, and mount the hinges flat side up, spaced evenly from top and bottom. Secure them with a [wrench](#). Then rest the gate on wood blocks and mark the gatepost where the straps meet it.



Mount straps flat side up, evenly spaced.

7 Hang the Hinges

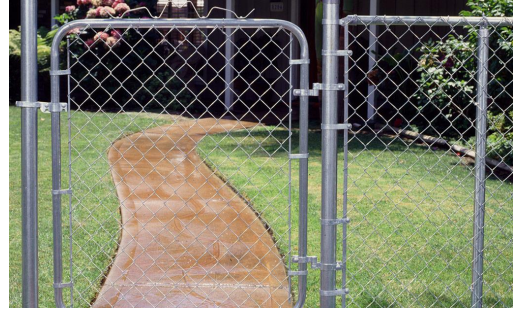
Set the gate aside and loosely attach the hinge halves to the posts, pins in their approximate positions. Tighten them with the top pin pointing down and the bottom pin pointing up. Rest the gate on the blocks, move the post-side of the bottom hinge into position and tighten it, then lower the gate-side hinge onto the pin. Hold the gate in place, lower the top post-side hinge until its pin seats and holds the gate, then tighten. Test the swing: if the hinges bind, make sure all four hinge pieces align; if there's too little or too much room for the latch, loosen the hinges and rotate them around the post or gate.



Top pin down, bottom pin up.

8 Hang the Gate

Position the latch catch on the gatepost opposite the hinges and tighten it. Slide the latch pin onto the side rail of the gate, line it up with the catch, and tighten it with a [socket wrench](#).



Line up the latch and tighten it down.

A chain link gate is remarkably strong and, unlike its wooden counterparts, unlikely to sag over time. Whether it opens onto a walkway or lets equipment and tools through, it's a durable, low-maintenance choice. Need supplies for your project? The Home Depot delivers [online orders](#) when and where you need them.