# Broken key or stuck bolt: diagnosing a deadbolt problem

When your deadbolt refuses to turn, or a key snaps off mid-lock, it is easy to assume the whole lock has failed. In most cases the real problem is simpler and cheaper to fix than a full replacement. The trick is knowing what kind of trouble you are dealing with. A misaligned door, a worn keyway, a frozen lock cylinder, or a broken key all demand different approaches. Rushing in with the wrong fix often makes things worse. This article walks through the most common deadbolt issues and how to tell them apart, so you can decide whether a quick adjustment is enough or whether you need professional help.

## When the key turns but the bolt won’t budge

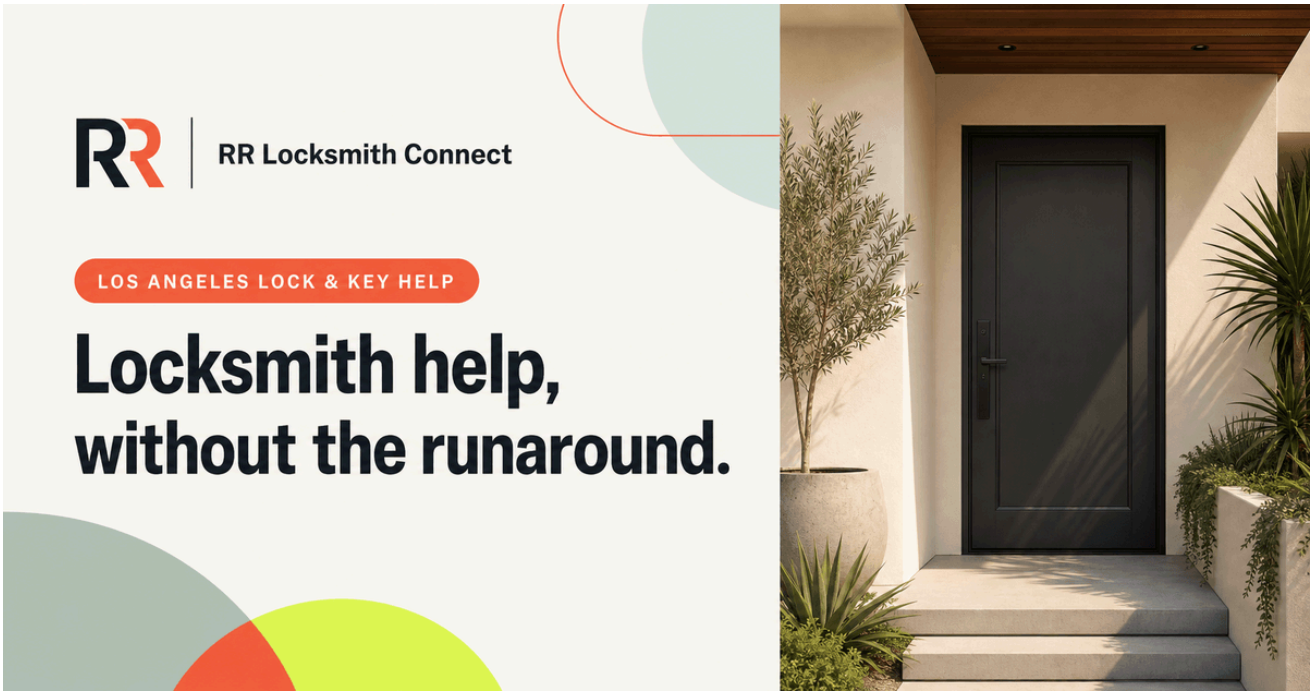
If your key slides in and rotates freely yet the bolt stays put, the problem is usually inside the lock body or at the strike plate. A deadbolt mechanism relies on a small cam or tailpiece that connects the cylinder to the bolt. Over time that connection can strip or break. You might also have a bolt that is simply not aligned with the strike plate hole. A door that has sagged, or one that swells in humid weather, can push the bolt out of line. The key turns, the bolt tries to move, but it hits the edge of the plate and stops.

To check alignment, look at the gap between the door and the frame when the door is closed. If it is wider at the top or bottom, the door may have shifted. A quick test: try pressing the door inward while turning the key. If the bolt slides home, alignment is likely the issue. A loose strike plate screw can also cause misalignment. Tightening it sometimes solves the problem without any work on the lock itself.

## When the key won’t go in or won’t turn

A key that refuses to enter the keyway, or goes in only partway, points to dirt, debris, or damage inside the lock cylinder. Keyways collect dust, pocket lint, and tiny metal shavings from worn keys. In older locks the pins inside the cylinder can stick from dried lubricant or corrosion. A squirt of dry graphite or a silicone-based lock lubricant may free things up. Avoid oil-based sprays, which attract grit and eventually gum up the pins.

If the key enters but will not turn, the problem could be a worn key or worn pins. Keys are softer than the steel pins inside a cylinder. Over many uses the key’s teeth round off, and the pins no longer lift to the right height. A duplicate key cut from a worn original will carry the same flaws. Having a new key cut from the factory code, or having a locksmith decode the cylinder and cut a fresh key, often restores normal operation.




Sometimes the issue is a lock that was installed upside down, or a cylinder that has been forced and has a broken spring. In those cases the lock needs to be disassembled. If lubricant does not help and the key still sticks, it is time to call someone who can inspect the pins and springs directly.

## When the key breaks off inside the lock

A snapped key is one of the most frustrating lock problems because the lock is now effectively blocked. The cause is almost always a key that was already weakened by a crack or worn thin at the teeth. Turning with extra force on a stuck lock puts the final stress on that weak point. Once the key breaks, the remaining piece sits inside the keyway and prevents any other key from entering.

If part of the broken key sticks out of the slot, you may be able to grip it with needle-nose pliers and pull it straight out. Do not twist or jiggle the key while pulling, because that can wedge it tighter. If the break is flush with the cylinder face, extraction tools such as a spiral key extractor or a fine pick are needed. Pushing the broken piece deeper or trying to glue a handle onto it usually makes removal harder. A professional can often extract the fragment without damaging the lock, saving you the cost of a new cylinder.

## When the bolt sticks in the locked or unlocked position

A deadbolt that gets stuck halfway, or that you have to push or pull manually to get it to move, usually means the bolt is rubbing against the strike plate or the door frame. This is a common sign of **deadbolt repair** that involves adjusting hardware rather than replacing the lock. Check

the strike plate first. If it is bent or set too far inward, the bolt has to force its way past it. Filing the strike plate opening slightly, or moving the plate outward with shims, can give the bolt a clean path.

Another possibility is a bolt that has elongated from repeated use. Some deadbolts have a plastic or zinc housing that wears down, allowing the bolt to wobble. If the bolt wobbles side to side when extended, it may catch on the edge of the strike plate. In that case the bolt assembly itself may need replacing, though the cylinder and key can often be reused.

## When you are locked out and the key is on the other side

A lockout that happens because the key is inside, or because the thumb turn is stuck, is a different kind of problem. It is not a deadbolt failure but a situation where you need help with a home lockout. In these cases the lock itself is probably fine, but you cannot operate it from the outside. If you have a second door or a window that opens, you may be able to retrieve the key. If not, a locksmith can open the door without damaging the deadbolt, usually by picking the lock or using a bypass tool.



For apartment dwellers, a lockout often involves the building's main entry lock as well. If you are locked out of your unit and the building manager is unavailable, you may need **help with a home lockout** from a local locksmith who can work with the building's key system. Always

have your proof of residence ready, because reputable locksmiths will ask for identification before opening a door.

## When the deadbolt feels loose or wobbly

A deadbolt that has play in it, or that rattles when you touch it, usually has loose mounting screws or a worn bolt mechanism. The screws that hold the lock to the door edge can pull out of the wood over time, especially on hollow-core doors. Removing the lock and checking the screw holes is straightforward. If the holes are stripped, filling them with wooden toothpicks and glue, then re-screwing, often restores a tight fit.

A loose deadbolt can also cause the door to rattle in the frame. That rattle puts extra stress on the strike plate and the door jamb. If the jamb itself is cracked or the wood around the strike plate is split, the fix moves beyond simple screw tightening. A longer strike plate or a reinforcement plate can spread the load across more wood. In severe cases the jamb may need to be repaired or replaced.

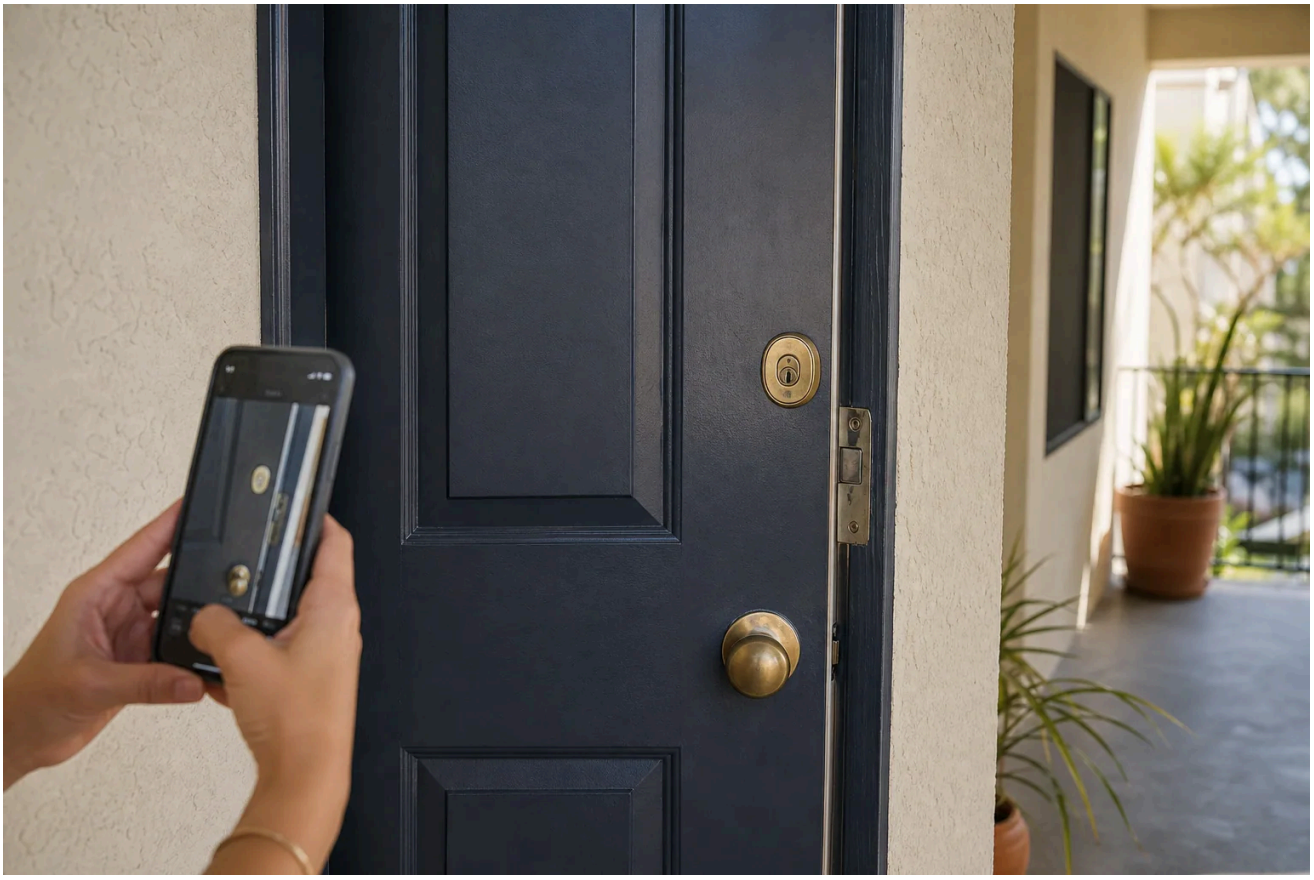
## When the lock works fine but the door alignment has shifted

Sometimes the deadbolt operates perfectly when the door is open, but when you close the door the bolt misses the strike plate. That is a door alignment issue, not a lock issue. Doors settle over time, especially in older buildings. Hinges can sink into the frame, or the frame itself can twist. Before adjusting the lock, check the hinges. Tightening hinge screws often pulls the door back into alignment. If the screws are stripped, longer screws that reach into the wall framing can help.

If tightening hinges does not solve the problem, the strike plate may need to be moved. You can enlarge the strike plate hole slightly with a metal file, or reposition the plate itself. That is a simple job if you have a screwdriver and a file. But if the door has shifted a lot, the gap between the door and the frame may be uneven enough that the bolt will never line up properly. In that case a carpenter or a locksmith who does **deadbolt repair** can advise on shimming the hinges or adjusting the frame.

## When the lock is simply old and worn out

Every mechanical lock wears with use. After years of operation the pins, springs, and internal components lose their shape and tension. A deadbolt that has become increasingly hard to turn, or that sometimes works and sometimes does not, is likely telling you it is time for a replacement. The same goes for a lock that has been forced in a burglary attempt, even if it still appears to function. Forced locks often have cracked internal parts that will fail at the worst moment.



Replacing a deadbolt is a common DIY job if the new lock fits the existing hole and the door is standard thickness. But if the door has a non-standard prep, or if you want to upgrade to a higher-security model, a locksmith can handle the installation and make sure the new lock is properly aligned. A fresh deadbolt with hardened steel inserts and a reinforced strike plate gives far better protection than a worn-out lock that looks fine from the outside.

## When to call a professional

Many deadbolt problems have simple fixes that a careful homeowner can handle. Lubricating a sticky cylinder, tightening a loose strike plate, or using a file to widen a bolt hole are all within reach. But some situations call for a trained hand. A broken key that is stuck deep in the cylinder, a lock that has been forced or tampered with, or a door frame that is split or rotting are jobs that require proper tools and experience. A locksmith can also rekey a cylinder so that one key works multiple locks, or upgrade your deadbolt to a smart lock if that is something you are considering.

Knowing what you are dealing with before you pick up a tool saves time and prevents accidental damage. Look at the obvious signs first: does the key turn, does the bolt move, is the door aligned. Most deadbolt issues fall into one of the categories above. Identify the problem, then decide whether a do-it-yourself adjustment or a professional repair is the right path.