

Where to Insulate

Checking your current attic insulation depth is a good first step. You need up to 19 inches (or R-50). If you don't have enough, it may be an indication that your home is underinsulated and may not be properly sealed. Adding insulation to underinsulated areas and sealing air leaks are the fastest, easiest ways to help you lower your energy bill.

Locating Underinsulated Areas

There are several key areas that are often uninsulated or underinsulated. These areas allow cold or unconditioned air to pass through, maintaining a comfortable temperature requires more energy, creating higher bills.

Check these areas for the opportunity to add insulation:

- **Attic** - Slide a yardstick or tape measure into the existing insulation. If it is not up to 19 inches deep, add more.
- **Basement** - check rim joists and basement walls.
- **Crawlspace** - check between floor joists if vented, and check perimeter walls if unvented. Ground should be covered with a 6 mil polyethylene sheet.
- **Exterior walls and floors** - turn off the electricity first, then check by removing an electrical outlet cover.
- **Garage** - check garage walls and ceilings that are adjacent to conditioned spaces in the house.
- **Knee walls** - check behind kneewalls, which are walls between living spaces and the garage or attic.

How to Avoid the Chimney Effect

In cold weather, warm air is continually rising. Leaks into the attic allow the expensive, heated air to escape into the attic, while at the same time drawing in cold air to displace it from the basement or other exterior leaks. This continuous air movement makes the home feel drafty and raises energy bills. By sealing attic air leaks, you plug the escape route of rising air and effectively stop the chimney effect.

Check around your attic for these common sources of attic air leaks:

- Between floor joists behind knee walls
- Attic hatch
- Wiring holes
- Plumbing vents
- Open soffit (the box that hides recessed lights and the finished space above cabinets)
- Recessed lights
- Furnace flue

Insulation R-Value

R-value is the measure of a material's ability to resist heat conduction. The greater the material's R-value, the better it performs as an insulator. All values assigned to insulation are based on specific thicknesses and are usually noted on the packaging. Compressing or otherwise reducing the thickness of insulation reduces its ability to resist conduction. Find your region on the map and use the chart to determine the R-value you need.