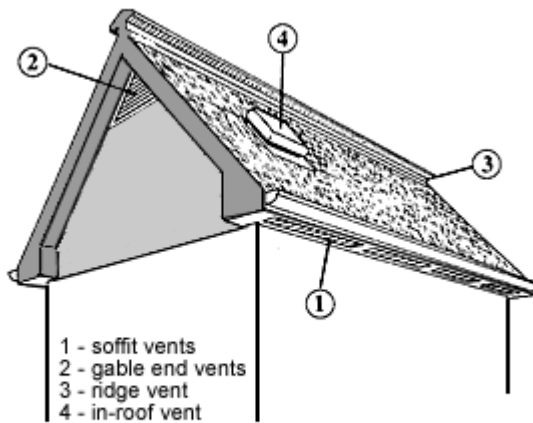


Understanding the Attic

If you're like most homeowners, you know the importance of insulating and tightening up your house to conserve energy. But what you may not know is that certain areas of a house need to breathe. One of these areas is the attic, which requires proper ventilation not only to maintain comfort below, but also to keep the very roof over your head solid and secure!

There are two particular villains that proper ventilation will fend off. These are heat and humidity.

Sources of Heat



Typical types of roof ventilation

Heat comes from the sun and, in summer, a poorly ventilated attic can reach temperatures as high as 150°F which means that even with insulation in the attic floor, the rooms below will be hotter than necessary, less comfortable, and more expensive to air condition. Excess heat also can shorten the life of some roofing materials.

Sources of Humidity

Humidity comes primarily from within the home, drifting upward from showers, unvented clothes dryers, humidifiers and kitchen ranges. It also comes from other, not-so-obvious sources.

During cold weather, water vapor may condense in various areas of an insufficiently ventilated attic, seeping into wooden rafters or roof sheathing and rotting them. Moisture in the attic area can cause roof shingles to buckle and insulation to lose its effectiveness. It also creates an environment that is conducive to mildew.

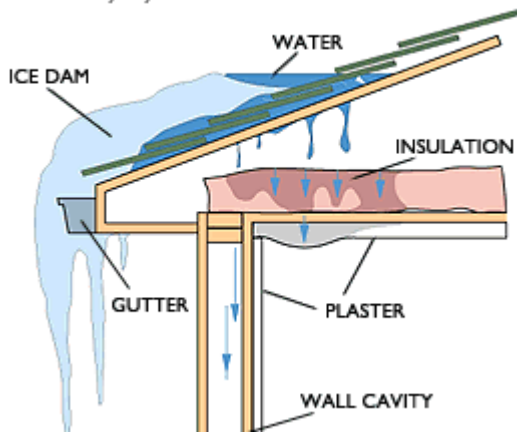
In recap, four reasons you need proper attic ventilation, to help:

- Prevent structural damages caused by moisture
- Increase the life of the roofing materials
- Reduce energy consumption
- Enhance the comfort level of the rooms below the attic

Ice Dams

If adequate ventilation is not installed, serious problems such as attic condensation, wood rot, mold, mildew and rusting metal will occur. These problems can affect the integrity of the roof as well as the integrity of the house, and can even cause health problems for family members in the home. One of the biggest roof problems associated with improper attic ventilation is an ice dam.

Illustration by Bryce Lee



Ice dams occur when snow melts near the ridgelines of warm roofs (roofs without adequate ventilation). As the water runs down the roof to the overhand, it cools and freezes. If the snow continues this melt and freeze process, an ice dam can form that can seep under the shingles, through the sheathing and into the home.

Points to Ponder

To maintain the most efficient attic ventilation, make sure that vents from your bath, kitchen and laundry are not routed to the attic, but instead go directly to the outside.

Never block off your attic ventilation in winter, since moisture generated inside the home that rises to the attic can cause more problems in winter than in summer. With proper insulation between the attic floor and ceiling below, the ventilation will not lower the temperature in the house.

[Click here to order an attic inspection or full home inspection](#)