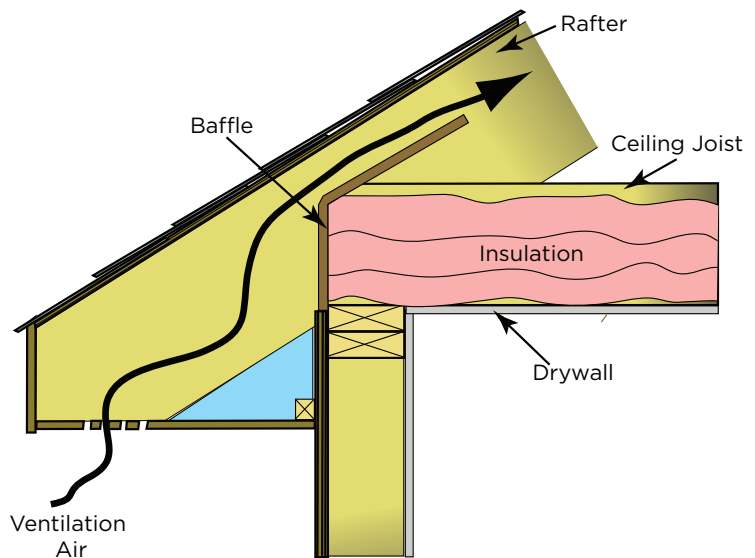


Attic Thermal Insulation

The attic accounts for a large percentage of a house's heat loss and heat gain. Attic insulation reduces heat loss in the cold months, and prevents heat build up in hotter months, making it a priority for insulation. In new construction, insulation levels for the attic are higher than all other areas. In an old home, the attic is the first place for insulation upgrades. The attic is comparatively easy to insulate since it usually presents no space constraint, making it easy to add a lot of insulation.

Ventilation

Critical to a healthy attic is good ventilation, with airflow circulating into and out of the attic. Circulation helps stabilize the attic temperature and remove moisture. Ideal ventilation has vent openings low on the roof and vents high on the roof to create draft. Air will flow naturally in the low openings and out the high openings. This is usually accomplished with soffit vents at the eaves and rooftop vents (mushroom vents) or ridge vents on top of the roof. There are many other possibilities as well.



Older houses often don't have as much ventilation as we do today. It usually works out for the old home because there is not much insulation, either. If you upgrade the insulation you could inadvertently create a problem if consideration is not given to the appropriate insulation. Upgrades should consider insulation and ventilation together.

Air Leakage

Current building science recognizes that while attic ventilation is important, equally important is sealing air leaks from the rest of the house to the attic, especially in cold climates. In a typical home, recessed light fixtures, bathroom vents, plumbing stacks, chimneys and wall cavities present numerous potential air leakage paths to the attic. Air leakage from the house causes many problems including condensation, rot, mildew and in cold climates - ice dams.

Attic HVAC Ducting

Ducting that runs through the attic should be well sealed and properly insulated. Leaking ducting in the attic is a waste of energy. There is no point heating and cooling your attic. During cooling season it's even more critical. Leaking or improperly insulated ducting could lead to condensation and water damage.

Do Not Disturb the Insulation

It's best not to disturb the insulation in the attic. Some attics have vermiculite insulation. Most vermiculite insulation contains small amounts of asbestos. Disturbing the insulation can cause a cloud of asbestos, a substance it is best to avoid or to which exposure should be limited. In some cases, the vermiculite lies under a layer of a different type of insulation. Visually, it may look like you have ten inches of fiberglass when, in fact, you may actually have four inches of vermiculite and six inches of fiberglass. If you have to disturb the insulation, check what kind of insulation you have first and take appropriate precautions. A standard dust mask does not provide adequate protection from asbestos.

Upgrading Attic Insulation

If you are upgrading your attic insulation, make sure you hire a contractor who is knowledgeable about the techniques and codes for your area. Good contractors will assess the insulation type and condition, as well as the ventilation.

