



Heat FOR THE Feet

by Susan Conbere and Kate Fried,
for the PATH Partners

RADIANT FLOOR HEATING

At the height of summer, your home heating system may be the farthest thing from your mind. But if you're planning a new home, it's not too early to think about the kind of system you want installed. And if comfort, efficiency and allergies are a concern, you'll want to look beyond a traditional forced air system.

Let's imagine you're five months down the road, installed in your new abode, just out of bed on a cold, wintry morn. Your toes hit that cold bathroom floor—and a familiar chill runs up your spine.

If you'd only thought of radiant floor heating in July.

Various forms of radiant floor heating have been in use since the ancient Romans, who channeled hot air beneath the floors of their homes. Today's hydronic (liquid) systems usually work by pumping hot water through pipes installed beneath the floor, to leave you—and your toes—pleasantly warm.

A hydronic system can heat your entire home, the cold concrete floors in the basement and garage or the chilly tiles in the kitchen and bath. Radiant heat is also especially appealing in rooms with high cathedral

ceilings, since forced air heat quickly rises above the occupants.

Electric radiant heat is also an option, and it can be a good one since there's no piping to complicate installation. At current gas prices, however, electric is usually only cost effective for smaller applications, like heating a bathroom or entranceway.

Whichever system you choose, the hallmark of radiant heat is even, consistent heat.

"The biggest advantage with radiant heating is comfort," says Deb Arrington, co-owner of Deb's Construction, who installed radiant floor heat in her own home near Richmond, Virginia. "In a home with radiant heating, you are always warm. You won't have any cold spots or the need to regulate temperatures."

In forced air systems, registers are placed along outside walls and under windows to compensate for cold surfaces. Vented hot air goes up those cold walls, across the ceiling and down to the cold air return, losing a great deal of heat along the way. Radiant heating, in contrast, directs heat to the home's interior.

And that, says Arrington, is very energy efficient.



FLOOR COVERINGS

Since ceramic tile is great at conducting and storing heat, this is the most effective floor covering for radiant floor heating. Other floor coverings, like vinyl, linoleum, carpeting and wood, can also be used, but they will be less efficient since they help insulate the floor from the room. Make sure the radiant tubing loop in these rooms is capable of delivering more heat than for equivalent rooms with bare concrete floors or ceramic tile covering.

If you use carpeting, pick a thin carpet with dense padding, and carpet as few rooms as possible. If you choose wood flooring, be sure it's laminated instead of solid wood, which may shrink or crack from the drying effects of the heat.



CERAMIC TILE



LINOLEUM



CARPETING



LAMINATED WOOD

Since your toasty toes are right in contact with the heat, and the heat tends to remain in lower levels of the room (rather than escaping upstairs or into a cathedral ceiling), you're more likely to be comfortable at lower temperature settings. And of course there is less heat loss overall. Manufacturers claim radiant floor heating will save 20 to 40 percent on monthly heating bills; the actual numbers may vary.

As with most heating systems, individual thermostats in different rooms can increase your savings, since multiple zoning allows you to lower the heat in rooms you aren't using.

Radiant floor heating is also quieter and less drafty because there are no heat registers or radiators (although you will need registers for cooling if you have a central air conditioning system). Radiant heat also works with any type of floor covering. (See sidebar.)

Set aside for a moment comfort, versatility and efficiency. If you suffer from allergies, that may be all the reason you need to consider radiant heat! Indoor air quality is improved because dust and allergens aren't circulating through the ductwork and the registers, as with forced air heating. Households with radiant floor heating host 50 to 80 percent fewer dust mites, according to the Association for Applied and Experimental Research of Allergies. That means you can be more comfortable in your new home, pay less and breathe free in the bargain!

Not bad for a system that's been around since the ancient Romans. ■

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