



Under-Tile Heating

There's nothing like a cold bathroom floor to wake you up first thing in the morning. Most of us simply accept cold, uncomfortable tile floors as a necessary evil, and we buy slippers and carpets to compensate. The best practice not only for warming floors but also for heating the entire room is radiant under-tile heating.

An alternative to forced air heating, under-tile heating is gaining popularity in kitchens, baths, and other areas with ceramic or stone tile floors. In this heating system, a network of electrically heated wires installed under the tiles heat not only the floor but the entire room as well. An under-tile heating system heats the room mostly by radiation, similar to how the sun warms the earth. Radiant energy emitted by the electric wires is absorbed into the tile floor, which then emits radiant energy that warms the air. After a while, all surfaces in the room radiate energy, and the room becomes uniformly warmed. The energy reaches into every corner of the room. No cold spots or cold feet.

Under-tile heating is a popular choice for people with asthma or other respiratory problems. Forced air systems can carry dust and air pollutants throughout the home. Under-tile heating is healthier because it has no chemicals, dust, or fumes. To learn more about indoor air quality, visit the Environmental Protection Agency's website.

Another advantage of under-tile heating is that it's invisible, making it more visually pleasing than the floor or wall vents that are part of a forced air system.

Installation steps vary depending on the specific system, but can generally be done in a few hours. Follow manufacturer instructions while considering the following general tips:

- ▶ Clean all dust and debris from the area to be covered.

- ▶ Coat the floor with primer.

- ▶ Follow the sizing guidelines in the manufacturer's instructions to mark the layout of the system—typically every two to four inches.

- ▶ Install the wires in a U-shaped layout. Tape the corners as you go. The tape, a type of duct tape, usually comes with the system.

- ▶ When you're finished, tape all the wires into position, making sure the wire is in the center of the tape. This will guard against the wire accidentally being moved out of position when the tiles are installed.

- ▶ Connect the thermostat to the system and test it.

- ▶ Once you've confirmed that the system is working, apply the adhesive that came with the heating system on top of the wires, and then apply the tiles.

For maximum comfort and good indoor air quality in ceramic or stone tile floored rooms, consider under-tile heating as an attractive, clean alternative to a forced air system.

To learn more about another type of under floor heating system, see HGTVPro's Best Practice video on [Radiant Floor Heating](#).