## **Opening Interior Doors and Supply Vents**

Should I open or close supply vents? Should I open or close interior doors? This is a question people might ask themselves when trying to lower their electric bill. Several theories have suggested that shutting a door to a room that is not being used will save money. In reality, closing off rooms causes your heating and cooling unit to work harder. The same goes for the supply vents in your home.

Heating and cooling systems are balanced whole-house units. These systems are designed to heat and cool the entire home, not just parts of it. Typical houses will have one or more return vents and numerous supply vents throughout the home. Since the system is designed as a whole, shutting doors to rooms where vents are located is disrupting the system's operation. When the door is shut to a room where a supply vent is located, the room becomes pressurized and less air gets back to the return vents. The system becomes imbalanced and doesn't operate as designed. This condition can cause the system to run longer than normal, increasing electric bills and maintenance on the system. The more interior doors that are shut, the worse the effect it will have on a system.

The same can be said about supply vents in a home. This also goes back to the design of the heating and cooling system. When a system for a home is calculated, the size of ductwork and the amount of air that goes in and out of a system is taken into consideration. When a supply vent is closed, it builds pressure in the ductwork. If the ductwork is already leaky, this can increase the size of holes and leaks. With more supply vents shut, the more imbalanced the system will become. The system has to put in extra effort to distribute air throughout the home because of the pressure buildup.

Pressure problems in a home can cause the home to draw in dirty, unconditioned air or force out heated or cooled air. This can cause higher bills, decreased comfort and poor air quality. How does a homeowner know if there is a pressure problem? Look for darkening around the top or bottom of doors. This is especially noticeable if you burn candles in your home. There is also an increased burst of air around doors or they become harder to open or close suddenly.

It is also important to make sure none of the supply vents



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are blocked by furniture or any other objects in the home. Objects blocking vents can have the same type of effect on the system and energy bills as closing them manually. Keeping the interior doors and supply vents open allows the system to distribute air flow throughout the house as it was designed to do. In return, it can help you save money and energy. Ensuring that vents and interior doors stay open is an easy and simple task that requires no money and minimal effort.



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