



# I just had my chimney swept a couple of months ago and it seems to not work again. What is wrong?

Sometimes a wood-burning system can develop issues within a short period after the cleaning. Most of the causes are **avoidable** and here are some of the reasons your stove, fireplace or insert may experience draft problems:

1. **Low Quality Fuel**
2. **Insufficient Combustion air - aka “Dampering down” or “Choking**
3. **Negative pressure within the home.**

## **1. Low Quality Fuel.**

Low quality fuel can mean 2 things:

- Softwood like **Pine or Fir**, high in sap content, low BTU output.
- Any Softwood or Hardwood high in moisture content over 20% (either insufficiently seasoned or the wood was exposed to rain/snow during storage).

This kind of fuel does not create a combustion environment hot enough to avoid “incomplete combustion”. As a result (even though there is a fire) there will be a lot of unburned gases and VOC’s (volatile organic compounds) travelling through the chimney. As soon as these molecules leave the firebox they cool down within the chimney and connect with the moisture that is escaping wood at the same. That is the creation of

creosote which will eventually **clog your system** or the **spark arrester screen** on the chimney cap. In other words, the weaker the fuel, the quicker it can clog your system. With daily use of green (unseasoned) or really wet wood a chimney can develop issues even **in 1 month since the sweep!**

SOLUTION: Inspect the wood you buy to make sure it has been seasoned. Store your wood away from moisture, do not burn cardboard or treated construction lumber.

## **2. Insufficient Combustion air - aka “dampering down”**

**Dampering down** is achieved by limiting the amount of oxygen available to the fire. Most stoves and inserts are equipped with an air control lever or knob. Choking is most useful when you want to load up the firebox and leave it burning slowly through the night. There are, however, negative consequences of this option:

- Lack of oxygen creates low firebox temperatures and leads to poor combustion (smouldering). Just like with poor fuel, creosote accumulation can speed up tremendously and clog your system **even with good fuel.**
- Dark deposits on the glass

SOLUTION: Give your fire some more air. If you need a longer burn, use hardwood (oak, walnut, almond) instead of softwood (pine, fir). Hardwood is more dense and burns longer and hotter promoting less creosote in your system.

### 3. Negative pressure within the home.

Even the cleanest and newest system will not work against negative pressure within the home. Wood-burning causes oxygen and air to be constantly removed from the house and this process lowers the air pressure indoors. When the pressure drops too low the house will want to re-pressurize and suck air in through the paths of least resistance. In many cases that path is your chimney and the smoke may be drawn back into the home as a result.

What causes the pressure to be too low?

- Tight home construction or recently upgraded **doors, windows, insulation** etc.
- Simultaneous use of **Clothes Dryer, Kitchen Range hood, bathroom fans, furnaces**. Anything that has an outdoor vent and removes air from the home will cause low pressure

Why does the house never run out of air then? In most homes opening the door or window for a few seconds does the job. In older homes full of countless “construction imperfections” the make-up air is drawn in through all available openings and cracks. In tighter structures and new homes with high performance insulation, doors and windows you may need to create an opening to bring in fresh air into the home or install an **outside air kit** for your wood-burning appliance.

### 4. The fire you are starting is too small

If your fireplace is cold and you are just starting the fire be aware that your chimney is also cold and there is a column of cold air sitting in your chimney. Cold air is “heavier” than warm air. The first thing you must do is establish a good draft so the fire you are building can sustain itself. You

must create a somewhat sudden surge of heat in the firebox in order to push the column of cold air out. This is most easily done by filling up the firebox first with a good amount of crumpled up paper (regular newspaper kind, but stay away from anything glossy, with lots of ink or cardboard). Light up the paper at once in many locations so it all ignites at roughly the same time. The “ball” of fire achieved this way should push the cold air out of your chimney and get you draft going upward. While the paper is burning you can add kindling (small and thin wood pieces) and continue with medium size pieces once the kindling is well lit. Leaving the door cracked about 1” for a few minutes (attended) can also help feed more oxygen into the firebox and get the fire going faster.

**Tahoe Chimney & Fireplace** guarantees a professional cleaning of your system and we are here to help. Unfortunately, even your chimney was re-swept, the issues will return if the causes are not addressed. If you need any further assistance, feel free to call us anytime with any questions, we'll find a solution.