

# WHAT HAPPENS IF YOU DON'T REPLACE YOUR FURNACE AIR FILTER



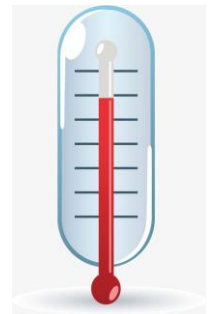
How often do you replace the air filter in your furnace? Were you even aware that your furnace had an air filter before you read this? If not, that's alright. Plenty of people don't realize that their furnace has an air filter. What's important is that you take proper action now to keep the filter in good shape. The Weatherization Program is not designed to cover improper maintenance of your furnace. You could find yourself spending thousands of dollars in repair and replacement costs just by ignoring the filter!

## WHY IT'S THERE

You may be wondering how important the air filter can really be, if you've gone this long without changing it and the system apparently works fine. The air filter actually has a pretty significant role in keeping the furnace healthy. The filter is installed in the return duct, so that all air flowing into the furnace must flow through the filter first. The filter collects dust and debris that might otherwise make it into the furnace and cause problems. It does this job pretty well, but it has one major drawback: it can't get rid of the debris that it collects. This is why the filter needs to be [replaced every few months](#)—or more often if you have pets.

## SHORT CYCLING

If the air filter is not replaced often enough, it will eventually become clogged to the point that air cannot pass through it. When the furnace is operating, the lack of air flow will trap the heat in the system. As the temperature inside the system continues to rise, the limit switch will activate and shut down the furnace to prevent it from overheating. This will temporarily lessen the issue, but it won't solve the root problem. Without a new air filter, the furnace will overheat every time it starts up again. This is referred to as *short cycling*.



## CONSEQUENCES

Prolonged short cycling causes a wide range of problems for the furnace. The output of the system drops, due to the lack of air flow. The wear and tear on the furnace increases significantly, causing more frequent breakdowns. If not corrected in time, the lifespan of the furnace could be shortened by a number of years.

If you notice your furnace turning on and off every couple of minutes, turn it off and check the filter. If the filter is dirty, replace it! Regular maintenance of your furnace filter will be better for the system in the long run.

Fortunately, replacing a furnace filter is a pretty simple task, once you know what you're doing. There are ways to botch the job, like buying the wrong size filter or putting it in backwards, which could block the flow of air instead of cleaning it. Here's how to do the job properly in three simple steps:

### Step 1

**What kind of filter do you have?** Start by turning off the furnace. Remove the existing furnace filter, which will be located inside the furnace or inside the return air vent. Look for an arrow on the filter indicating airflow direction. Using a permanent marker, draw the airflow direction on the outside of the furnace, so you'll always know the right way to install the filter. Then note the furnace filter size, which will be printed on the cardboard frame.

### Step 2

**Get the right replacement.** Furnace filters are sold at home centers, hardware stores, and online. Disposable ones are typically 1 or 2 inches thick. There are also thicker furnace filters, some up to 5 inches, and they often provide superior air cleaning. But if your furnace isn't already equipped to handle a thicker filter, it will need to be modified by an HVAC professional.

### Step 3

**Install the new filter.** Look for the markings that tell you which side of the filter should face the furnace. Then slide the filter back into place and replace any cover that goes over it. Keep a record of the date so that you'll know when it's time to change the furnace filter again. You can even write the next changeout date on your monthly calendar!



**Yuck!**



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