

KEEP YOUR SYSTEM
RUNNING SMOOTH & SAFE



FROM
MITLYNG &
FAMILY
HANDYMAN

DIY Furnace Tune-Up

Tune-up your own furnace in this free guide from Mitlyng & Family Handyman. If you need a hand, our technicians are **just one call away!**

165 Division St.
Montevideo



320-269-2970
www.mitlyng.com

About This Guide

Save money and increase your heating system's efficiency and comfort by following these simple steps to keep your furnace in tip-top condition.

PLEASE NOTE: All appliances, especially natural gas furnaces, can be dangerous and deadly if improperly handled or operated. All contents within this document are provided for *educational purposes only*.

Mitlyng Electric & Refrigeration assumes **no responsibility or liability** for any damages to personnel or property that may occur as a result of the instructions provided herein.

Readers are advised to exercise caution and, if ever uncertain, to immediately call a professional.

Call Mitlyng today at **320-269-2970** for any help with your heating needs.

Our expert technicians are available 24/7 to assist with your emergencies.

COLD WEATHER FURNACE TUNE-UP

DETAILS

Tune-up your furnace for the winter!

Our technicians will perform:

- Carbon monoxide (CO) testing
- Filter replacement (if available)
- Thermostat calibration
- Gas line check
- Burner & flue inspection
- Blower inspection
- Safety controls check
- Combustion analysis
- ... and more!

\$79

\$129 Value
Save \$50!

QUALIFIES FOR
UTILITY REBATE*

*Terms and conditions apply. Call today to ask about rebates.

About Mitlyng

Mitlyng Electric, HVAC, Plumbing & Refrigeration was founded in 1984 in Montevideo, MN. We primarily serve customers in West Central Minnesota, but have worked with clients as far away as Texas. We serve both individuals and commercial entities. No job is too big or small!

At Mitlyng, **your satisfaction is our top concern**. Our roots in small town Minnesota bring with them friendliness and respect that we integrate into every interaction. Whatever your problem or concern may be, we hope to address it in a professional, respectful, and cost-effective manner.



Introduction

Together, these tasks will take you less than three hours to do, cost only a few dollars, and require a few basic hand tools. That's pretty cheap insurance for a winter of cozy, cost-effective warmth.

Winter's tough enough without your furnace dying or not putting out enough heat. And when it comes to furnaces, an ounce of prevention truly is worth a pound of cure.

So here are some basic maintenance tasks that you can do to ensure that your natural gas or propane-fueled furnace stays running in peak condition all winter.

Step 1: Remove combustion chamber door

Step 7: Blow dust off the pilot flame burner

Step 2: Inspect the burner flames

Step 8: Clean the flame sensor

Step 3: Vacuum burner & blower cavities

Step 9: Dust the hot surface igniter

Step 4: Remove blower to clean it

Step 10: Inspect the drive belt for cracks or fraying

Step 5: Vacuum & brush the blower blades

Step 11: Lubricate bearings if necessary

Step 6: Change your furnace air filter

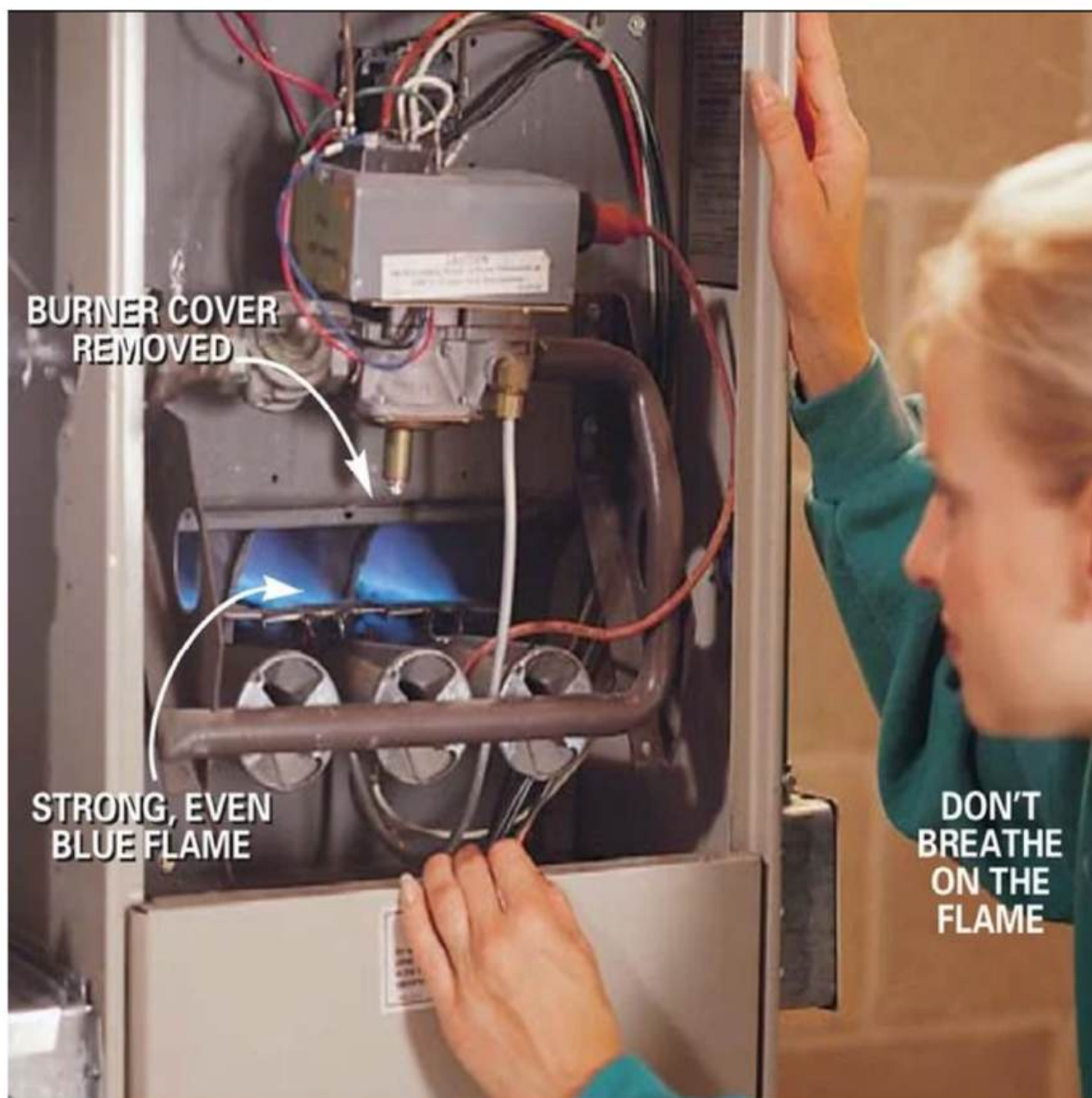
Step 12: Adjust dampers if necessary



STEP 1

Remove the Combustion Chamber Door

To begin maintenance on your furnace, first flip the electrical power furnace switch to "Off." Remove the combustion chamber door by lifting up and pulling it out, and remove the burner cover (if you have one). It's usually held in place by two screws.



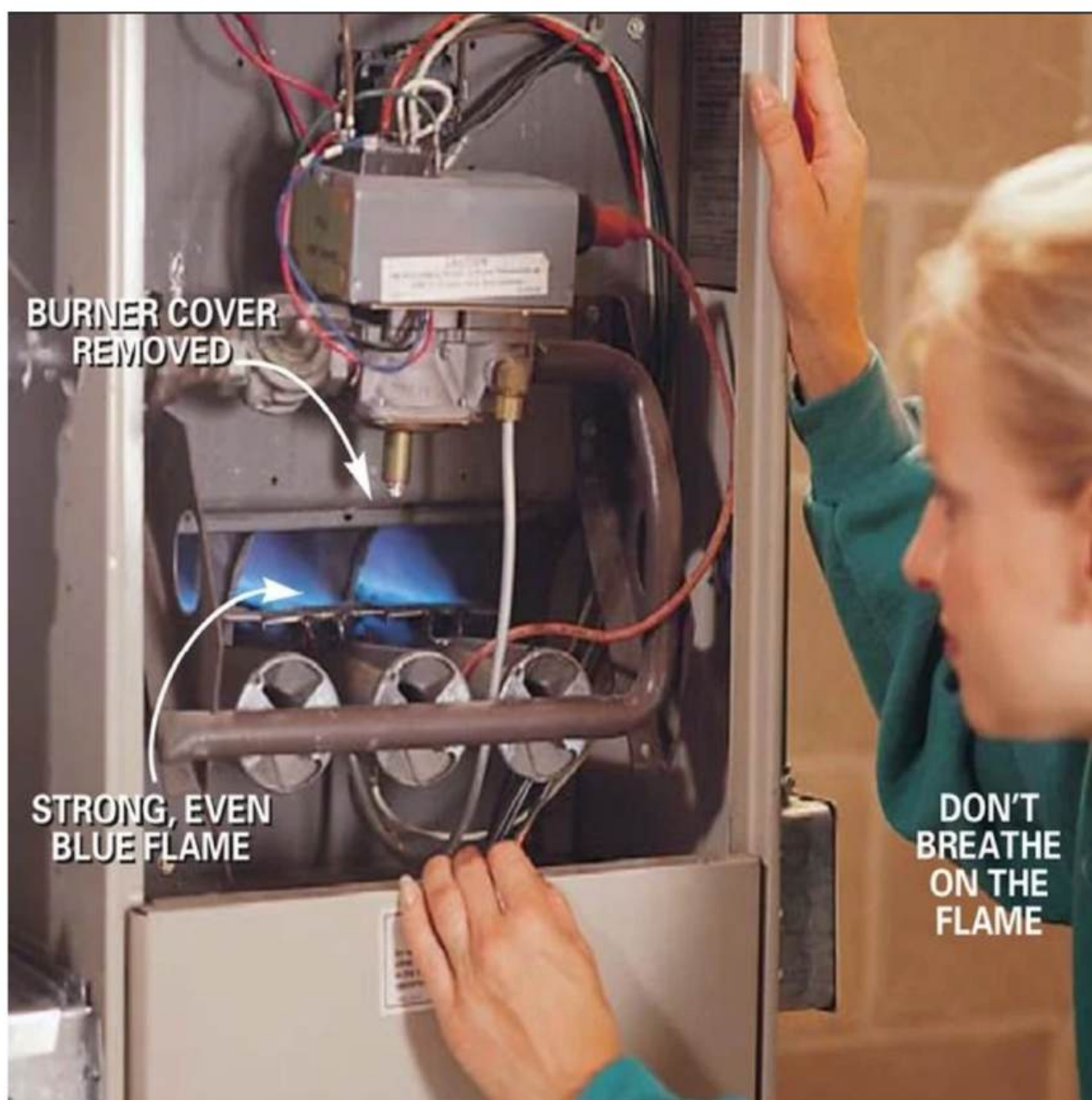
STEP 2

Inspect the Burner Flames — Ensure They are Even & Blue

Once the chamber door is off, turn the power switch back on and activate the burners by turning up your thermostat. Inspect the burner flames. The flames should be fairly even and blue. Yellow flames indicate dirty burners. **Don't adjust the burners yourself.** Call in a professional — Mitlyng can help! **Call 320-269-2970.**

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**Mitlyng Electric, HVAC,
Plumbing & Refrigeration**

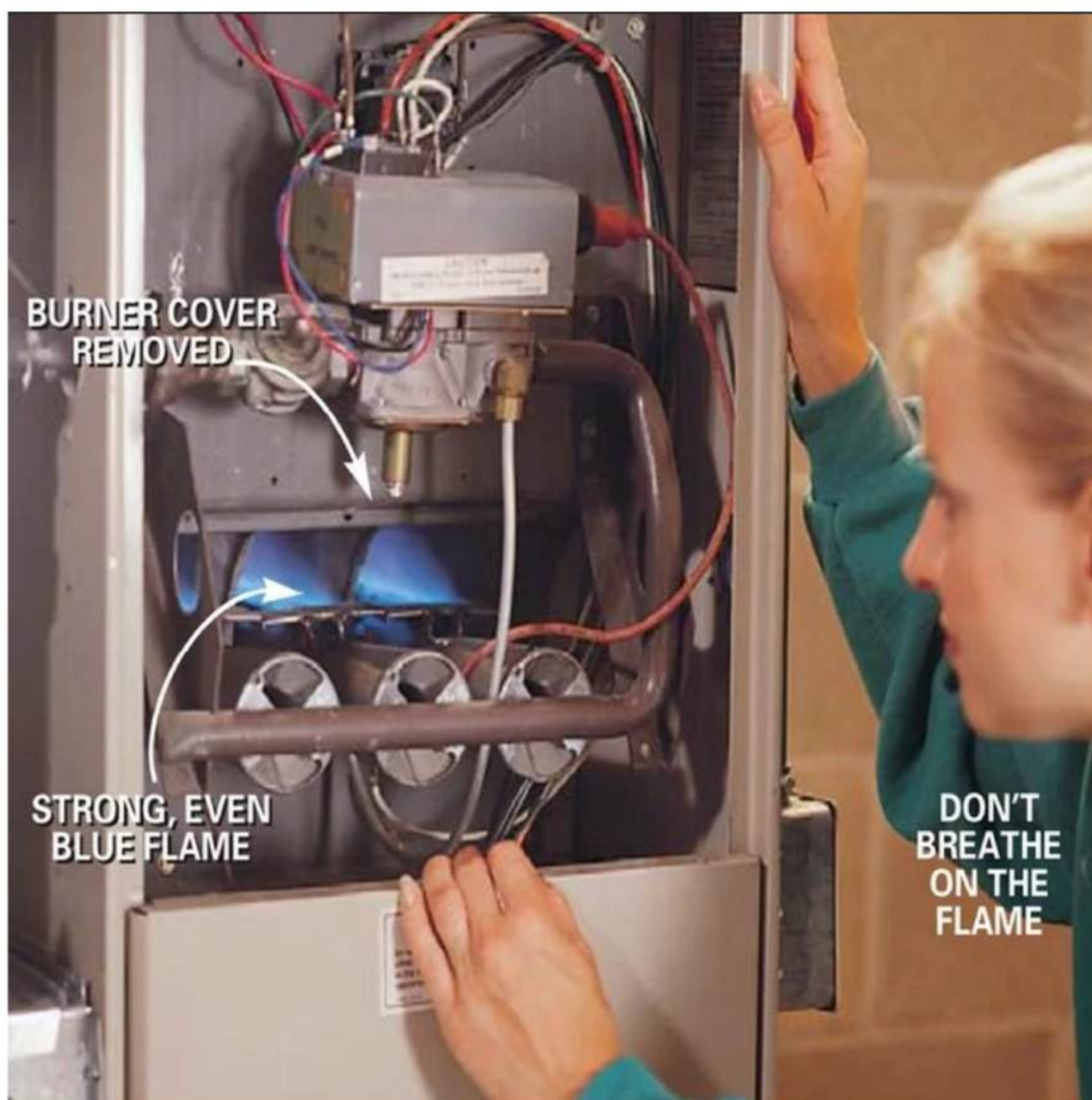


STEP 3

Vacuum Out the Burner and Blower Cavities

Once your combustion chamber is open, shut off the gas to your furnace by giving the valve one-quarter turn. Vacuum the furnace burners and the furnace base. To get at the back of the burners, tape a 20-in. length of 1/2-in. drain line to your vacuum hose.

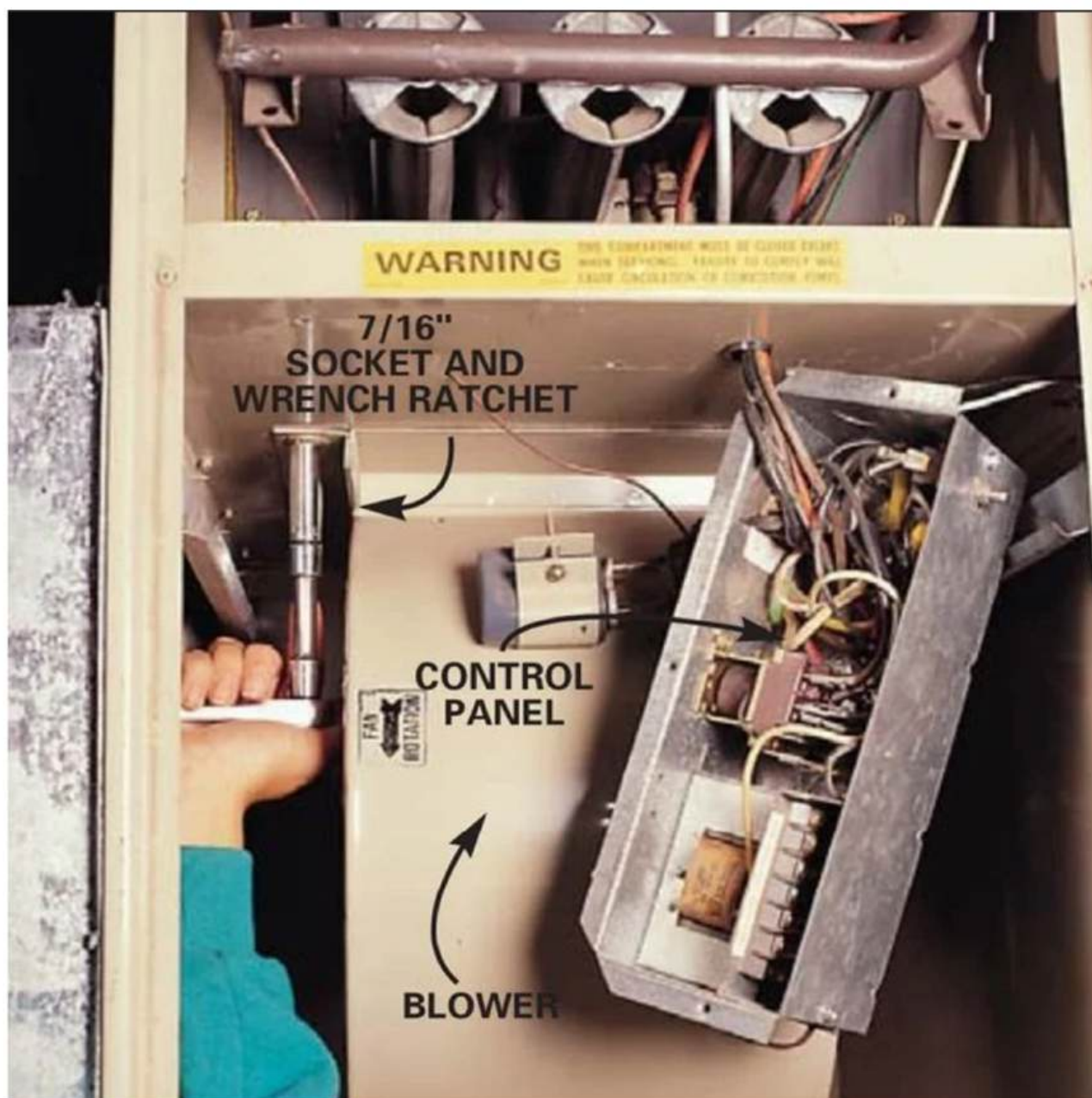
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STEP 3

Vacuum Out the Burner and Blower Cavities

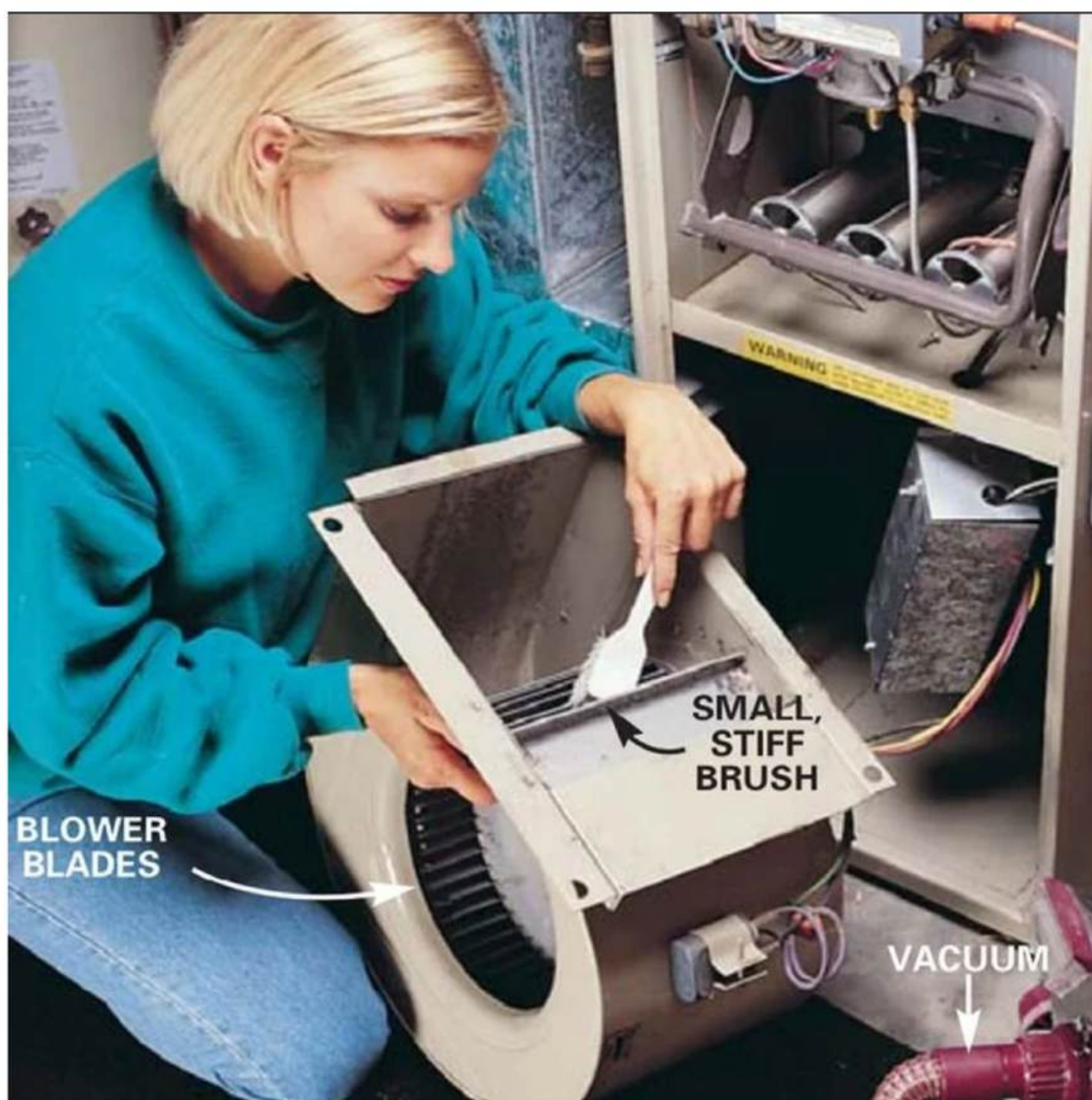
Vacuum everywhere you see dust. While everything is open, use a flashlight to look for signs of soot (fine black powder), which often indicates poor combustion. Lift off the lower door (blower door) and vacuum the blower compartment.



STEP 4

Remove the Blower from Furnace Housing to Clean It

Remove the blower in order to clean it. If you have a control panel in front of the blower, two screws will loosen it and you can let it hang. Next, using a 7/16-in. socket and ratchet, remove the two bolts holding the blower in place, then gently lift it out.



STEP 5

Vacuum and Brush the Blower Blades Thoroughly

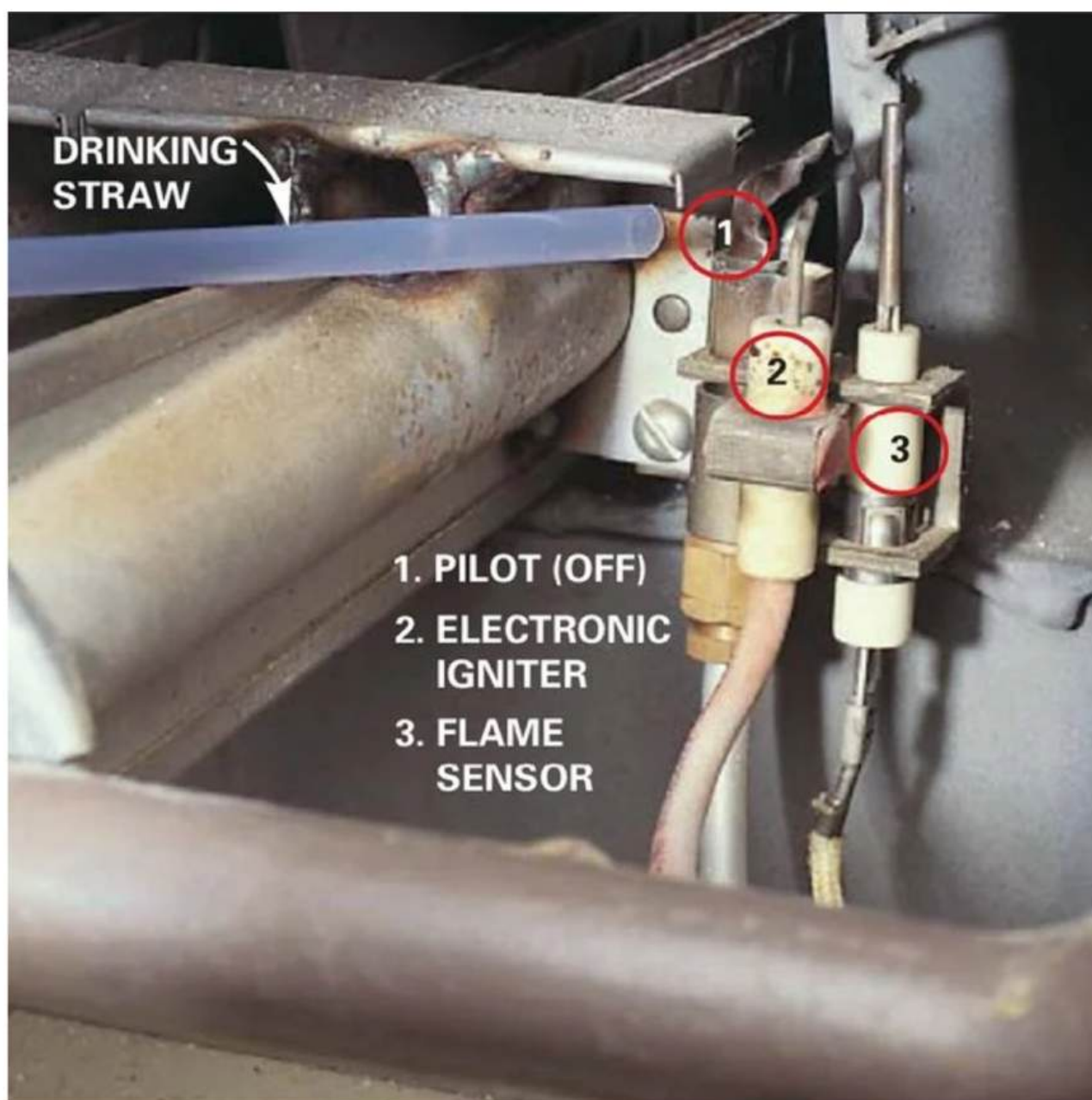
Clean the blower blades thoroughly with a vacuum and small brush. Take care **not to stress the wiring** or disturb the counterweights that will be on the fan blades. If you can't clean the blower fully, **don't clean it at all**; you could throw off the balance.



STEP 6

Change Your Furnace Air Filters

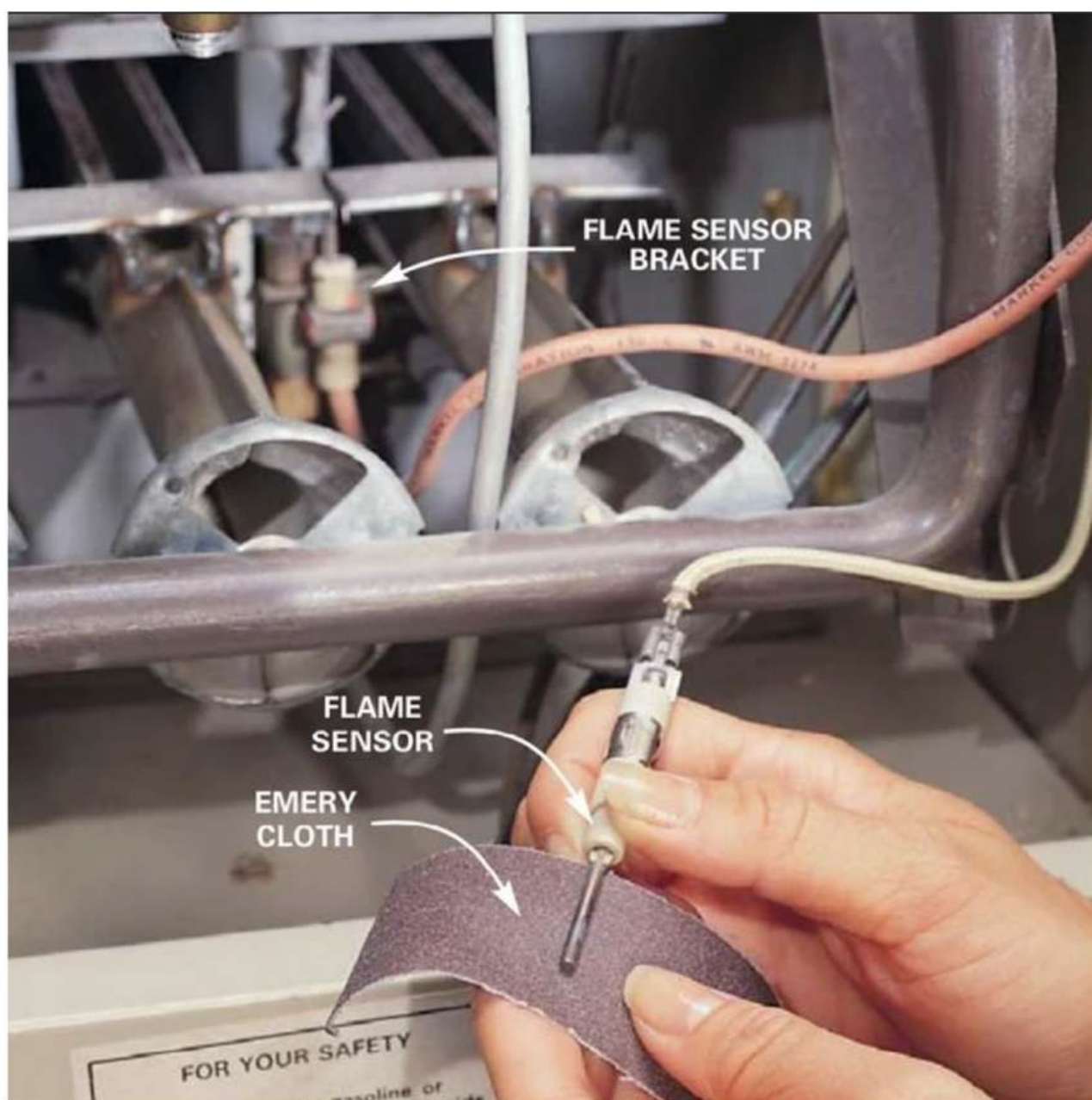
Change the furnace filter every one to three months — check the owner's manual for the manufacturer recommendations on what filter to use. High-efficiency filters can restrict the airflow, strain the blower motor and make your furnace less efficient. If you want cleaner air, the best option is a separate UV air-cleaning system.



STEP 7

Blow Dust Off the Pilot Flame Burner

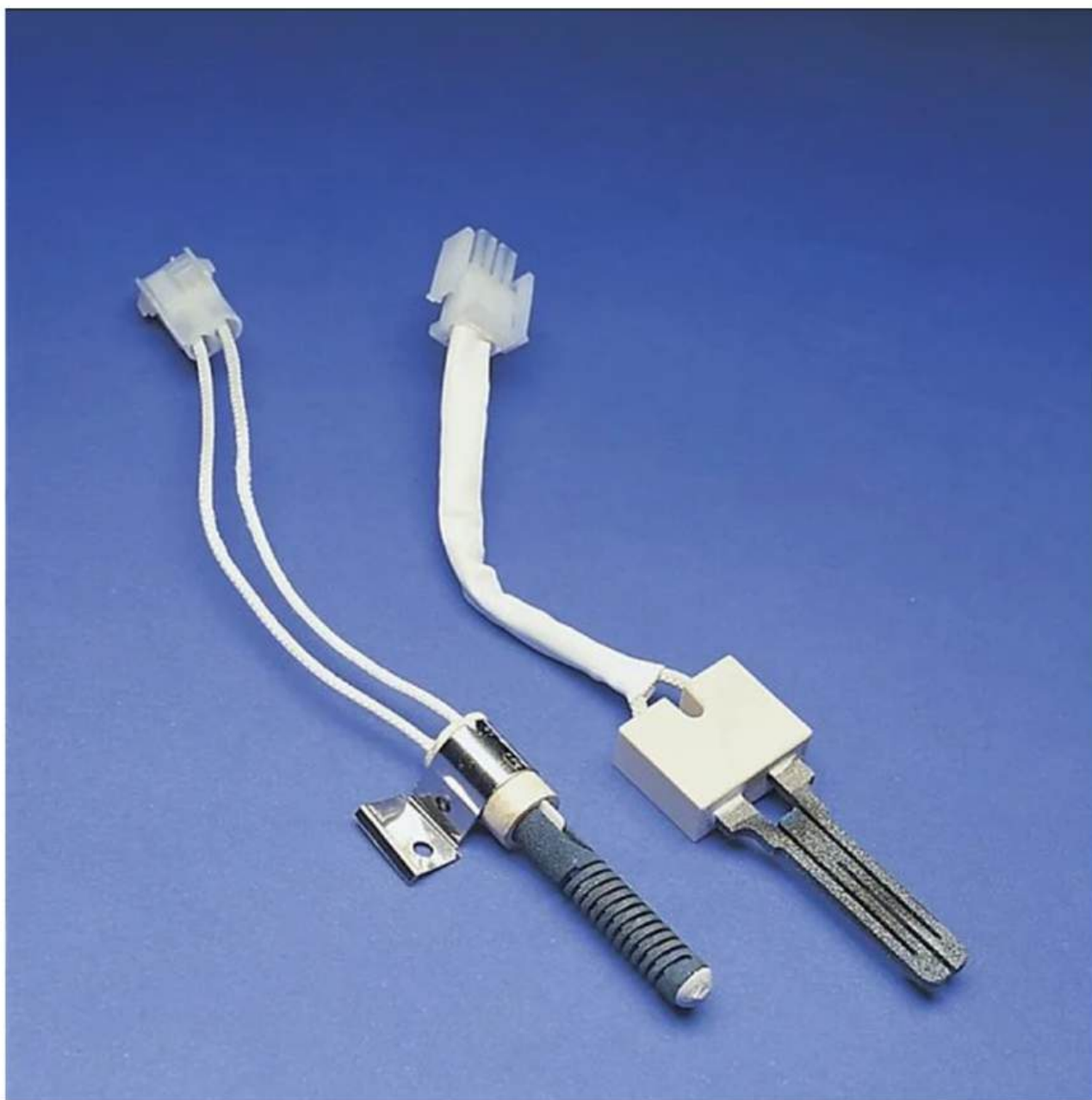
Blow dust off the pilot flame burner. Direct air to the exact spot by blowing through a drinking straw. A dirty pilot can cause the flame sensor to get a false reading that the pilot isn't lit. Some newer furnaces have hot surface igniters instead of pilots.



STEP 8

Clean the Flame Sensor

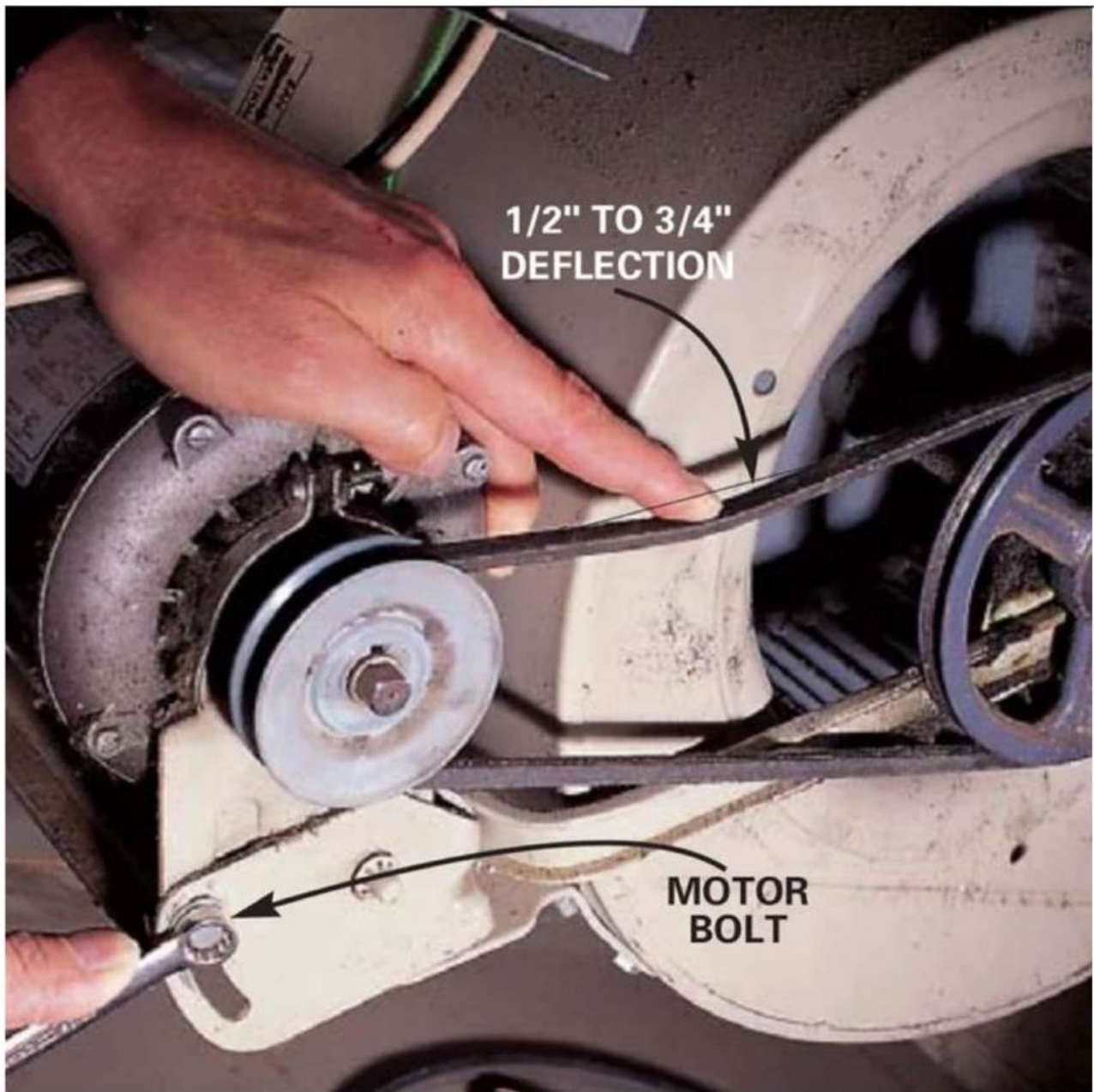
The flame sensor occasionally becomes coated with residue and will prevent your furnace from lighting. Remove it by pulling it down out of its bracket. Lightly clean the surface with fine emery cloth and slip the sensor back into its bracket.



STEP 9

Dust the Hot Surface Igniter Without Touching It

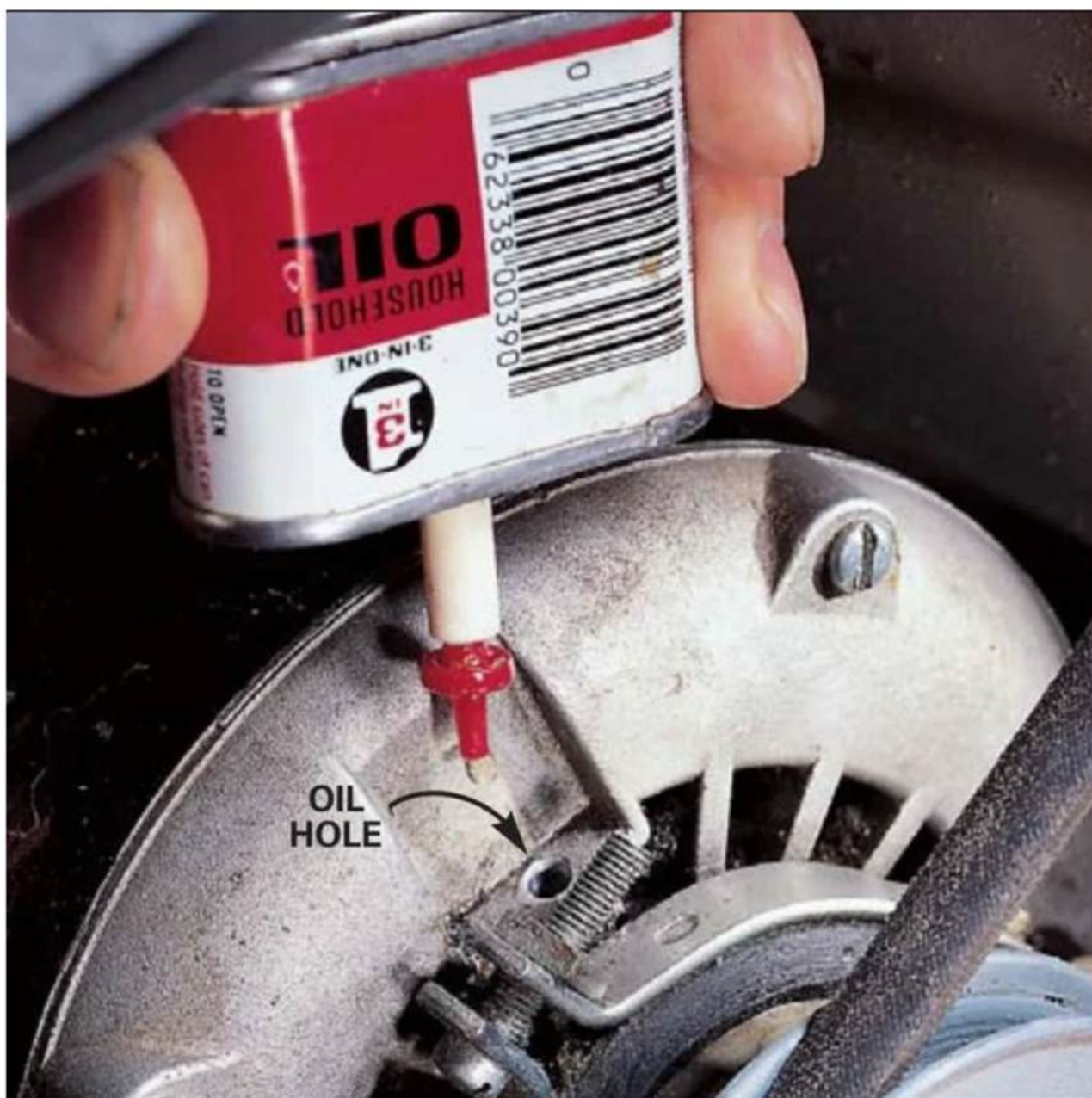
Hot surface igniters are the most common ignition system on furnaces today - They take the place of standing pilot lights and electronic igniters. Clean the dust off the hot surface igniter by leaving the igniter in place and blowing air through a straw. This part **breaks very easily**; don't even touch it, simply gently blow on it.



STEP 10

Inspect the Drive Belt

To repair your heating, the belts on belt-driven blowers need occasional adjustment or replacement. Inspect the drive belt for cracks or frayed areas. When you install the new belt, tension it so it deflects $\frac{1}{2}$ to $\frac{3}{4}$ in.



STEP 11

Lubricate Bearings if Necessary

Some older furnaces have two motor bearings and two blower shaft bearings that require annual oiling. Clean around the oil caps and remove the caps. Apply two to three drops of lightweight machine oil and replace the caps. Don't over-lubricate!



STEP 12

Adjust Dampers If Necessary

If your furnace heating ducts also serve as air conditioning ducts, they may have dampers that require adjusting for seasonal changes. The seasonal settings should be marked. Two-story homes often have separate supply trunks to serve the upstairs and downstairs. To send more warm air downstairs (winter setting) or more cold air upstairs (summer setting), adjust the damper handle on each supply trunk.

Conclusion

There you have it — Your DIY winter furnace tune-up is done. We hope you found this guide useful, and we extend our sincere thanks to FamilyHandyman for their partnership.

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- ... and more!

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Save \$50!

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- ✓ Licensed & insured technicians
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- ✓ FREE estimates & 2nd opinions

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Over \$5,000 of savings · Expires 12/15/24

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FLATE-RATE FURNACE REPLACEMENT

DETAILS

Don't risk an old furnace leaving you in the cold! Stay safe, warm and save with a new energy-efficient furnace.

New furnaces qualify for up to **\$3000 in rebates & tax credits**, and can save up to 30% on utility bills.

Call us today and see how you can replace your system for **\$0 down, 0% interest for 18 months***.

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\$7000 Value
Save \$2000!
UP TO \$0 DOWN,
0% INTEREST*

*Financing subject to credit qualifications. FIRM rate up to 30% DTG furnace.

WHOLE HOME COMFORT PROGRAM

DETAILS

Keep your home safe and reliable year-round with our Whole Home Comfort Program. **What's included?**

- Spring A/C Tune-Up
- Fall Furnace Tune-Up
- Annual Electrical, Plumbing, Water Heater & Sewer Inspection

Don't leave your home's health to chance—call us today!

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SEASONAL BOILER TUNE-UP

DETAILS

Tune-up your boiler for the winter!

Our technicians will perform:

- Carbon monoxide testing
- Thermostat calibration
- Gas line inspection
- Burner & flue inspection
- Pressure & safety valve check
- Heat exchanger examination
- Expansion tank inspection
- Combustion analysis
- ... and more!

\$99

\$179 Value
Save \$80!
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UTILITY REBATE*

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WHOLE HOME DUCTWORK CLEANING

DETAILS

Get winter-ready with whole-home duct cleaning from Mitlyng!

As your heating system works harder, clean ducts mean **fresher, healthier air circulating through your home.**

Clear out dust and allergens before they settle in for the season—call us today for your winter discount!

\$779

\$1279 Value
Save \$500!
ONE YEAR
WARRANTY*

*Terms and conditions apply. Call today to ask about our warranty.

FLUSH & FILL WATER HEATER

DETAILS

Give your water heater a longer life and prevent break downs with a flush & fill this winter!

Our technicians will perform:

- Power flush to remove sediment
- Anode rod analysis for corrosion
- Temp. & pressure relief valve test
- Heating element/burner check
- Tank refill + temperature setting
- ... and more!

\$99

\$179 Value
Save \$80!
PROLONGS THE LIFE
OF YOUR HEATER

*Terms and conditions apply. Call today to learn more.

MAIN SEWER LINE CLEARING & INSPECTION

DETAILS

Keep your drains flowing with a main sewer line inspection and clearing.

Our technicians will perform:

- High-res. camera inspection
- Real-time video review
- Root & debris removal
- High-pressure jetting
- Offer tips for prevention
- Discuss repair options
- ... and more!

\$129

\$258 Value
Save 50%!
IF WE CAN'T FIX
IT, NO CHARGE*

*Charge only applies if flow is restored. Terms apply. Call today.

ANY INTERIOR DRAIN CLEARING

DETAILS

Clogged drain? Not for long. Call us today and keep your pipes flowing.

Our technicians will perform:

- High-res. camera inspection
- Real-time video review
- Hair & debris removal
- Plunging, jetting, or snaking
- Preventative maintenance
- Discuss repair options
- ... and more!

\$79

\$179 Value
Save \$100!
IF WE CAN'T FIX
IT, NO CHARGE*

*Charge only applies if flow is restored. Terms apply. Call today.

INSTALLATION OF STANDBY GENERATOR

DETAILS

Stay warm and worry-free this winter with a standby generator!

A standby generator powers your home during outages, running your heating, lights & essential appliances when you need them most.

Prepare for winter's worst—call us to schedule your standby generator installation today!

15% OFF
ANY INSTALLATION*

*Up to \$1000 off any installation. Call for more information.

ADD / UPGRADE ELECTRICAL PANEL

DETAILS

Upgrade & add to your home's safety and power capacity with an electrical panel installation or replacement!

As your needs grow, an old panel can lead to frequent breaker trips, safety concerns and fire hazards.

Don't let your panel hold you back—upgrade or add one today for a safer, more efficient home!

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\$50 OFF ANY CALL

DETAILS

Save \$50 on any service call for your electrical, heating, cooling, or plumbing needs!

Whether it's a quick repair, maintenance, or troubleshooting, our expert technicians are here to help.

Take advantage of this limited-time discount and ensure your home's comfort and safety this winter!

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