MAINTAINING YOUR HOME

with Rebuilding Together Metro Denver
WHO IS REBUILDING TOGETHER?
STAYING SAFE IN YOUR HOME
Smoke Alarms

• 2 out of every 3 fire deaths result from homes with no or non-working smoke alarms

• You should check your smoke alarm once a month and change the batteries once a year

• The Red Cross may be able to assist if you need a smoke alarm and cannot afford one. 303-607-4753

• There are 3 different types of smoke alarms: ionization, photoelectric, and a combination of the two.
**SMOKE ALARMS**

Did you know that scientists have spent many years working on smoke alarms to keep us safe? One of the most common types is an ionization smoke alarm. Here’s how it works:

1. Inside the smoke alarm, there are two tiny metal plates called electrodes that are connected to a battery. This is called a circuit.

2. There is also a substance called Americum-241. Americum-241 converts air molecules into positive and negative ions. Because opposites attract, the negative ions move toward the positive plate and the positive ions move toward the negative plate. This movement creates a complete circuit or path of electricity.

3. When smoke enters the smoke alarm, the ions bond with the smoke, breaking the path of electricity.

4. When the flow of electricity is reduced, the alarm goes off.

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**SMOKE ALARMS**

Another type of detector is a photoelectric smoke alarm. Here’s how it works:

1. Inside the smoke alarm, there is an LED light that sends a beam of light (similar to a laser pointer) in a straight line across the chamber. In a separate compartment inside the chamber, there is a photosensor that detects light.

2. As smoke enters the detector, the smoke particles interrupt the light beam, scattering it in many directions. Some of the LED light scatters toward the light sensor. When light beams hit the sensor, the alarm will go off.

3. When the batteries in your smoke alarm get low, the smoke alarm automatically activates a low battery chirping sound different from the alarm sound so you know it’s time to get new batteries.

Some smoke alarm contain both optical and ionization smoke detection systems.
Where do smoke alarms go?
CO Alarms

• More than 400 people die from carbon monoxide (CO) poisoning each year

• CO is a colorless, odorless gas found in fumes produced any time you burn fuel in cars or trucks, small engines, stoves, lanterns, grills, fireplaces, gas ranges, or furnaces.

• NEVER USE A GENERATOR INSIDE YOUR HOME

• You should check your CO alarm once a month and change the batteries once a year

• Doors between the garage and the home should have a self closer installed, to prevent accidental poisoning
The best practice is to have detectors on all levels of the home. The most important locations are near the bedrooms.

Place within 10 to 15 feet of all bedrooms.

Avoid humid areas such as kitchens and bathrooms.

Placing a detector in the utility room is good common sense. But placing just outside the area will cut down on nuisance alarms.
What should you do if your CO alarm goes off?

1. **Check that it is not the low battery indicator.**
2. **Turn off** appliances, or other sources of combustion at once. Most common culprits are gas or oil furnaces, clogged chimneys, and gas stoves with an improperly working pilot light.
3. Immediately get **fresh air** into the premises by opening doors and windows.
4. Call a **qualified technician** and have the problem fixed before restarting appliances. We recommend calling your utility provider first as they may be able to assist.
5. If anyone is experiencing symptoms of carbon monoxide poisoning: headaches, dizziness, vomiting, **call the fire department** and immediately move to a location that has fresh air.
6. Do a **head count** to be sure all persons are accounted for.
7. **Do not re-enter** the premises until it has been aired out and the problem corrected.
Fire Extinguishers

• Kitchen fires are the most common

• Look for a fire extinguisher classified for type A:B:C which can fight most types of home fires

• Most fire extinguishers have a gauge which will indicate when they need to be replaced or recharged
THE MAJOR SYSTEMS
Average Life Expectancy

- gas ranges - 15 years
- electric range - 17 years
- dryers and refrigerators - 13 years
- washing machine - 13 years
- dishwashers - 9 years
- garbage disposal - 10 years
- microwave ovens - 9 years
- furnaces - 15-20 years
- electric or gas water heater - 10
- air conditioning - 10 to 15 years
- garage doors - 10 to 15 years
- roofs - 15 years
- electrical panel - about 60 years
Extend the life of your furnace

1. **CHANGE YOUR FURNACE FILTER!!!**
   - Change your furnace filter when it's dirty! Or about every 45 days during the winter. At the very least every 90 days.
     - The dirtiness is dependent upon pets, # of occupants, general air pollution (e.g. multiple pets or have allergies)
     - You don’t need fancy filters
     - A dirty filter forces your furnace to work harder and increases your utility bills

2. We also recommend a furnace check up at the start of every winter. Make sure you look for a licensed and insured contractor, the city’s building department can help verify this if you are unsure.
Extend the life of your furnace

3. Other ways to make your furnaces' life easier -
   • Get programable thermostat. They cost about $30 can save you up to $180 a year
   • Its recommended that you set your thermostat to 68-72 degrees when you are home
   • Set it to lower it 7-10 degrees when you aren’t home or while sleeping (if you have it set to the lower temp for 8 hours a day you can save about 10%)
   • Close vents in rooms not being used
   • Seal up air leaks around house
Extend the life of your Water Heater

• Check for water leaks monthly and make sure the vent pipe (gas heaters) is securely attached

• Make sure your thermostat is at 120 degrees. You’ll save up to 5% in energy costs for every 10 degrees you lower the temperature, plus you’ll reduce the risk of scalding. https://energy.gov/energysaver/projects/savings-project-lower-water-heating-temperature

• Drain the tank every 1 to 3 years to remove sediment and debris or have someone complete it for you. https://www.youtube.com/watch?v=zmkCvuaLtZE
If you smell (or hear) natural gas:

When an odor is persistent or seems to be everywhere, it could be a sign of a gas leak inside your home or with an outside line. Upon detecting such an odor, immediately get everyone out of your home or building, move a safe distance away and then call for help. Because an electric spark can ignite an explosion, remember to follow these tips:

1. Do not turn on or turn off electrical switches.
2. Avoid using electric appliances such as garage door openers or telephones of any type.
3. Do not start up or shut down motor vehicles or any other electrical equipment.
4. Do not strike a match. Avoid open flames or other ignition sources.
5. Move to a location a safe distance away from your home when the odor is outdoors.
6. Call Xcel Energy at 1-800-895-2999 (or your gas provider) or 911 in an emergency, from a location outside of your home.
7. Stay away until Xcel Energy or the emergency responders have told you it’s safe to return.
Extend the life of your electrical and plumbing

- **Electrical** - don’t mess with your electrical system unless you know what you are doing.
  - Make sure you aren’t over loading breakers or plugging frayed cords into outlets

- **Plumbing**
  - Avoid draino and other chemical drain cleaners
  - Prevent clogs
  - Get your sewer lined cleaned every few years
  - Reduce your water pressure (you usually need a pro to do this for you)
  - Fix leaks right away!
EASY REPAIRS
Lighting you pilot light

- If you have a gas water heater and it suddenly stops working you pilot light may be the issue.
- https://www.youtube.com/watch?v=xgU7kIktBJo
Running Toilet

• Running toilets are the easiest leak to repair.

• https://www.youtube.com/watch?v=XzfRd9immBo
Repair Resources

**Youtube channels**
- House in progress
- Adam DIY (more in-depth repairs)

**Websites**
- This Old House
- Family Handyman
- DIY network

**Books**
- Family handyman - The Complete Do-it-Yourself Manual
- The Complete Idiot’s Guide to Simple Home Repair
• RTMD contact - 720-524-0840
• Thornton Neighborhood Services - 303-538-7600
• The Red Cross - 303-607-4753
• Thornton Fire - 303-538-7602
• Arapahoe County Weatherization Program - 303-636-1982
• Xcel Energy - gas emergencies - 1-800-895-2999
  - energy solutions - 1-800-895-4999
• General Resources - 211