# TEMPERATURE CONTROL

#### *What are the Health and Safety Risks?*

**E**very home needs to be a temperature controlled home to ensure families and the house structure is safe from extreme temperatures and provides comfort. A temperature controlled home has balanced temperature and humidity levels. Older homes were constructed with materials and methods that are not very energy efficient, but most do have good ventilation from infiltration of air. However, homes that are not energy-efficient cause monthly utility bills (gas, electric, propane) to be more expensive, therefore, it is beneficial for homes to have a balance of energy efficiency and adequate ventilation.

Homes that are not temperature controlled may place a family at increased risk from exposure to extreme cold and heat. High temperature and humidity in a home can make asthma, mold, and other indoor pollution worse, as well as general discomfort for a family. Having high monthly utility bills can also lead to financial stress for families.

#### ***Where Do Temperature Control Risks Come From?***

A home's heating and cooling system should provide a stable temperature that also prevents excessive moisture, heat and cold to the indoor environment. When it doesn’t, families will sometimes go to extreme measures to make the resources they have work to temporarily meet their needs. To avoid severe temperatures in their homes, families will sometimes do what they can, such as:

* Turning on the Oven
* Use portable heaters that burn fuel and electric
* Use generators
* Add fans and window air conditioners
* Overcompensate with heat or cold air to avoid extreme temp during loss of energy or service

There are times when resources are not available for long periods of time and these temporary fixes become the only form of heat and cool air they have available to them. However, families should be warned that:

* Long term use of an oven, fuel burning portable heaters, and generators to heat a home creates a fire and burn risk as well as CO poisoning risk to the occupants of the home. These measures may also not prevent excessive cold from impacting the most vulnerable populations.
* Long term use of window air conditioners can create mold and moisture issues especially beneath the unit, including the window sill trough, siding and all components in the “water run off” path that these units create.
* Some older generations have a very low tolerance to cold and keep their home at stifling levels of heat year round. Although understandable that their circulatory system is working hard to keep their body strong and balanced; the home and other occupants may be compensating by opening windows or adding window air conditioners in separate parts of the home. The mixture of heat and cold will start to create condensation in the home building materials and structure. Excessive moisture can rot wood based materials, and paper, fabrics, and gypsum materials are ideal environments for mold and mildew growth. Mold and mildew can occur quickly and may hide behind walls, under flooring and wallpaper.



**What can you do to help the families**

**and communities you serve?**

*Actions for Living in a Healthy Home*

Family Health and Housekeeping Habits

Stakeholders and providers should encourage families to assess ways to improve their heating and cooling system and their maintenance. A home energy audit can assess a home’s energy use and can suggest strategies that a family can implement to find a healthy compromise to temperature and humidity levels that meet the needs of all of their family members. See this website for more information: [www.energy.gov/energysaver](http://www.energy.gov/energysaver).

##### Insulation

##### Insulation can be a way to balance the temperature of rooms that family members sleep and spend the most time in to avoid overcompensating with the thermostat. Insulation acts like a blanket around a home and it slows heat from escaping in the winter and heat from entering the home in the summer. It is installed throughout homes in the walls, floors, attics, and sometimes basements and crawl spaces. When adding or removing insulation, caution should be taken by the homeowner to look for possible existing **Asbestos or Vermiculite** insulation. These types of insulation were popular at one time but are now known to have harmful health effects if the material is disturbed and the fibers become airborne. It is best for homeowners to have a certified insulation contractor or home inspector identify the risk of any material that is suspected of containing asbestos including a friable, grainy texture; crumbles on touch; and/or looks like pellets (vermiculite insulation).

##### Air Ducts

##### Some homes use forced air systems to provide heating and cooling. In these homes, air travels through a system of supply and return ducts. These are made of rigid or flexible materials. Ductwork can be found in attics, walls, and under floors. Heated and cooled air leaking from out of ducts should be fixed by sealing the leaks otherwise a homeowner is wasting money and losing heat or air conditioning. Homeowners should be instructed to:

* + Check air ducts for leaks and repair them, especially in places like attics and crawl spaces, using mastic or foil tape to seal the leaks.
  + Keep air outlets and registers open and don’t block them with furniture or draperies.

##### General Heating and Cooling Tips

##### For low or minimal costs, families can take the following steps to balance energy efficiency with heating and cooling requirements:

* + Add a programmable thermostat, or use small room or ceiling fans during the summer, and keep the home cooler in winter and warmer in the summer. Changing the temperature on the thermostat by 2° can reduce utility bills by approximately 5-10%.
  + Install curtains and shades: open to let the sun shine in during the winter and closed in the summer to keep the heat out.
  + Use caulk and weather stripping around windows and doors to stop air drafts. Replace old, cracked or peeling material with new material and seal cracks around pipes.