

# INDOOR HUMIDITY

## A Factsheet from Austin Energy's Green Building Program

Humidity inside buildings in Central Texas is often too high for good health and comfort. It needs to be controlled.

### Relative humidity needed for health and comfort

Health range - Between 25 and 60 percent. Below 25 percent, viruses thrive and above 60 percent, molds and dust mites thrive. These organisms cause allergies, asthma, and other illnesses. Symptoms may be mild, such as breathing problems, headaches, fatigue, coughing and sneezing, or debilitating and even fatal. Sufferers may never connect these effects with their cause.

Comfort range - Between 25 and 50 percent, depending on the temperature. The hotter it is, the lower the humidity needs to be for comfort.

### Some causes of excessive humidity

- Humid outside air filtering into the house.
- Gas flames in stoves, water heaters, furnaces, and fireplaces (combustion produces water vapor).
- People breathing, sweating, bathing, doing laundry, cleaning, cooking, and washing dishes.

### Moisture produced per day by a family of four

<u>Activity</u>	<u>Pounds of moisture vapor</u>
Breathing	12
Cooking (3 meals)	2
Dishwashing	1
Showering	0.5
Clothes washing	4
Floor mopping (per 100 sq. ft.)	3

*Note: It takes one half to one gallon of water to raise the relative humidity of a 1000 sq. foot house from 15 percent to 60 percent (1 gallon of water = 8.34 lbs. of moisture vapor.)*

### You may or may not notice high humidity in your house

You may feel hot and sticky or cold and clammy. You may see water vapor condensing on cold surfaces; for example, on mirrors and windows, especially single-pane windows. But condensation may be occurring where you can't see it, in wall cavities and in the attic, where it will cause mold growth, rot, and deterioration and attract bugs.

### Find out the relative humidity in your home--get a hygrometer

A hygrometer measures relative humidity. It is inexpensive and widely available at electronics stores. Place it where you will see it often and can get a clear picture of humidity levels and changes in your home.

HEALTH

### **Control the relative humidity in your home**

- ❑ Run exhaust fans during and after bathing, when doing the laundry and cooking. If your house doesn't have exhaust fans, have them installed. Be sure they vent to the outside.
- ❑ Reduce moisture-causing activities. For example, don't run the clothes or dish washer unless you have a full load; choose house plants that don't require a lot of water; take shorter showers; use the microwave and the outdoor grill instead of the stove (especially if you have a gas stove, since combustion produces water vapor); and keep the toilet lid closed.
- ❑ Do not install vinyl wallpaper. It acts as a vapor retarder on the surface of the wall. In Central Texas, walls should be able to dry from the outside to the inside, the opposite from a cold climate.
- ❑ Reduce absorbent items in your home. For example, avoid overstuffed furniture and heavy drapes; the less carpet, the better.
- ❑ Install a dehumidification system if problems persist. A dehumidification system is expensive to purchase, but it's the only reliable way to control humidity in your home. It will ensure comfort in all seasons and may save you money on medical bills in the long run.