



INDOOR AIR QUALITY

# Indoor Air Quality Assessment Checklist

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You can use this checklist to:

- 1) determine if health symptoms experienced at home are the result of an indoor air-quality problem;
- 2) isolate probable sources of an air-quality problem; and
- 3) evaluate a home for potential problems when symptoms are not present.

This checklist is *not* suitable for certifying a home is free from air-quality problems. If you need such certification, contact local or state health officials for names of appropriate professional engineering firms.

The checklist includes several parts. The first is an assessment of symptoms. This is followed by a series of questions designed to determine if symptoms are linked to the home. The remaining sections pose questions pertaining to each of several major indoor air quality contaminants. For each contaminant there is a reference for further information.

## Description of Symptoms

Complete the table below using names to distinguish various household members. The other information is to help evaluate the air quality problem. Known health problems, allergies for example, should be listed only if they are related to air quality symptoms. Indicate which persons have problems by placing the symptom codes, listed below, for that person in the "Air Quality Symptoms" column.

Occupant (first name)	Age	Sex	Known Health Problem(s)	Air Quality Symptom(s) (use codes below)
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				

Air Quality Symptoms - Several health symptoms are described below. List the letter(s) as appropriate. For example, if a family member is experiencing nausea note the letter "b" under health symptoms for that person.

- |                                    |                                |
|------------------------------------|--------------------------------|
| a. no symptoms                     | f. nasal congestion/runny nose |
| b. nausea                          | g. dizziness                   |
| c. eye irritation                  | h. headache                    |
| d. burning or stinging eyes        | i. other describe              |
| e. respiratory irritation/problems |                                |

1. In which room or rooms do these symptoms usually occur? \_\_\_\_\_
2. At what time of day do these symptoms usually occur? \_\_\_\_\_

## Is It an Indoor-Air Quality Problem?

1. When were symptoms first noticed? (month and year)  
\_\_\_\_\_
2. When do health symptoms occur, or when are they the worst?  
 spring       summer       fall       winter  
 all year       not sure       other
3. Do symptoms persist when the individual leaves the home?     Yes       No
4. Check any new events, changes or hobbies in your home environment that began *within a month* of the date given in question number 1. If you identify changes in the home environment, turn to the section(s) of the assessment that match the letter in parentheses after the item.  
 new home (B, C, D & F)  
 recently moved into home (B, C, D, E, F & G)  
 new construction (B, D, F & H)  
 new smoker (A, B & F)  
 new weatherization (B, D, G & H)  
 new carpet (B & F)  
 new furnishings (B & F)  
 new furnace (with its own air supply) (B & G)  
 addition of gas heating, cooking or clothes dryer (B & G)  
 new hobby using varnishes, paints, stains, etc. (A, B & D)  
 additional use of home, pet or plant pesticides (B & E)  
 persistent odors, describe:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
 other, list:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



### Asbestos

1. When was your home built? \_\_\_\_\_
2. If your home was built before 1975, indicate whether any of the following types of materials are present:  
 plaster-like or corrugated-paper pipe insulation on hot or cold water pipes  
 boiler insulation  
 felt-like covering on warm-air duct

**Unless you know the composition, ceiling or floor tiles should be analyzed for asbestos before disrupting. If you answered yes to one or more of these questions, asbestos fibers might be in the air of your home. Exposure to these fibers increases your chances of developing cancer. See UW-Extension publication *Stalking Friable Asbestos in the Home* (B3443) for further information.**

# B

## Tight Home Syndrome

1. How many floors does your home have? (Do not count basement unless it is routinely used for living space.) # floors \_\_\_\_\_
  
2. Approximately how many *square feet* are there on each floor? The basement should be considered a floor only if it is routinely used for living space. Multiply the width of the house by its length to find the square footage.  
floor #1 \_\_\_\_\_ floor #2 \_\_\_\_\_  
floor #3 \_\_\_\_\_ other floors \_\_\_\_\_  
**Total sq.ft.** \_\_\_\_\_
  
3. Age of home:  
\_\_\_ incomplete  
\_\_\_ less than 1 year \_\_\_ 5-25 years  
\_\_\_ 1-5 years \_\_\_ more than 25 years
  
4. Weatherization, check which ones are used in home:  
\_\_\_ window weatherstripping  
\_\_\_ door weatherstripping  
\_\_\_ new windows or storms  
\_\_\_ plastic on windows  
\_\_\_ wall or ceiling air/vapor retarder  
\_\_\_ caulking
  
5. Exhaust fans are located in: \_\_\_ kitchen \_\_\_ bathrooms \_\_\_ neither
  
6. Exhaust fans are used:  
\_\_\_ regularly, whenever room is occupied  
\_\_\_ occasionally, when needed  
\_\_\_ never  
\_\_\_ don't know
  
7. Is air conditioning present? \_\_\_ Yes \_\_\_ No
  
8. Are other house ventilation systems (i.e. attic fans, air-to-air heat exchangers used)?  
\_\_\_ Yes \_\_\_ No  
If yes, what are they? \_\_\_\_\_
  
9. Are signs of mold growth visible? \_\_\_ Yes \_\_\_ No
  
10. Do you have persistent condensation on windows in winter? \_\_\_ Yes \_\_\_ No

**Inadequate ventilation can cause concentrations of contaminants to increase and can result in high humidity levels. See UW-Extension publication *Moisture Problems in the Home* (B3371) for further information and remaining sections of this checklist for more detailed questions about other contaminants.**

# C

## Radon

**Radon is not responsible for any known short-term health problems. However, exposure increases the chances of developing lung cancer. See UW-Extension publication *Radon Gas in the Home* (B3442) for information.**

# D

## Cleaners and Solvents

1. Does your family do more than occasional woodworking or hobby activity in the home?  Yes  No

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_

2. Does your family daily use any aerosol sprays in the home?  Yes  No

3. Check the cleaning products you frequently use:

<input type="checkbox"/> oven cleaners	<input type="checkbox"/> carpet shampoos
<input type="checkbox"/> ammonia	<input type="checkbox"/> tub-and-tile cleaners
<input type="checkbox"/> disinfectants	<input type="checkbox"/> air fresheners
<input type="checkbox"/> dusting sprays or furniture polishes	<input type="checkbox"/> self-cleaning floor waxes
<input type="checkbox"/> general-purpose household cleaners	<input type="checkbox"/> dry-cleaning fluids or spot removers
<input type="checkbox"/> home cleaners in aerosol spray form	<input type="checkbox"/> scouring powders that contain chlorine bleach

4. Do you use or store mothballs in your home?  Yes  No

5. Check any of the following products you frequently use in your home?

<input type="checkbox"/> paint stripper	<input type="checkbox"/> paint thinner
<input type="checkbox"/> wood stains	<input type="checkbox"/> turpentine
<input type="checkbox"/> furniture polish	<input type="checkbox"/> artist's paints
<input type="checkbox"/> mineral spirits	<input type="checkbox"/> varnish, lacquer or shellac

6. Do you store any of the following in your house?

<input type="checkbox"/> paints	<input type="checkbox"/> solvents
<input type="checkbox"/> kerosene	<input type="checkbox"/> lubricating greases or oils
<input type="checkbox"/> pool disinfectants	

7. Do you frequently dry clean clothing or household furnishings?  Yes  No

**Many of these solvents have been linked to short-term health problems such as nausea or dizziness and long-term health problems such as cancer or birth defects. If answers to questions in this section indicate frequent exposure to solvents see UW-Extension publication *Solvents: Chemical Hazards in the Home* (G3027).**

# E

## Pesticides

1. Do you store any of the following in your house?

pesticides  herbicides  insecticides

2. Do you have large numbers of plants indoors?  Yes  No

3. Do you frequently use pesticides indoors on pets, house plants or insects?

Yes  No

4. Have you ever had your home treated for insects or other pests?  Yes  No

If so, give most recent date and name of product used. \_\_\_\_\_

***Pesticides are poisons. More than occasional use of pesticides in your home and surrounding area may cause respiratory problems. If you are experiencing health problems you suspect are associated with pesticides, consult your physician or local health professional as soon as possible. See UW-Extension publication *Pesticides: Chemical Hazards in the Home* (G3026) for more information.***



## Formaldehyde

1. Have composition wood products such as particleboard, furniture or cabinets been used extensively in home construction in the last two year?  Yes  No
2. Has new carpeting been installed in the home in the last two years?  Yes  No  
If yes, was it installed over concrete?  Yes  No
3. Have new drapes, rugs or upholstery been installed in the home in the last two years?  Yes  No

**Exposure to formaldehyde can cause a variety of symptoms, including burning eyes and respiratory problems. See UW-Extension publication *Formaldehyde in the Home (B3441)* for more information.**



## Combustion Sources

1. Do you have a frequent smoker (smokes more than one pack per day) in the home?  Yes  No
2. Do you have an attached garage?  Yes  No
3. Do you use a gas stove or oven for cooking?  Yes  No
4. How old is your gas stove or oven? \_\_\_\_\_ Years
5. Do you have a gas water heater?  Yes  No
6. Is your primary winter heat source a:
 

<input type="checkbox"/> fireplace	<input type="checkbox"/> coal furnace or boiler
<input type="checkbox"/> oil furnace or boiler	<input type="checkbox"/> gas furnace or boiler
<input type="checkbox"/> wood stove or furnace	<input type="checkbox"/> active or passive solar heat
<input type="checkbox"/> electric furnace or boiler (LP or natural)	<input type="checkbox"/> electric baseboard or space heater
<input type="checkbox"/> unvented gas or kerosene space heater	
7. If you use a backup or supplementary heating system, it is a:
 

<input type="checkbox"/> oil furnace or boiler	<input type="checkbox"/> combination furnace
<input type="checkbox"/> gas furnace or boiler	<input type="checkbox"/> wood stove or furnace
<input type="checkbox"/> fireplace	<input type="checkbox"/> electric baseboard or space heater
<input type="checkbox"/> electric furnace or boiler (LP or natural)	<input type="checkbox"/> active or passive solar heater
<input type="checkbox"/> unvented gas or kerosene space heater	
8. How old is your primary heating source? \_\_\_\_\_ Years  
Give the date of most recent professional servicing. \_\_\_\_\_
9. Do you have a gas clothes dryer:  Yes  No
10. Does your clothes dryer exhaust:
 

<input type="checkbox"/> indoors	<input type="checkbox"/> outdoors	<input type="checkbox"/> indoors during winter only
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**If any combustion equipment is being used and household members complain of drowsiness during the day, carbon monoxide may be the cause. If so, leave the home and have the equipment checked immediately. For information on hazards associated with combustion appliances see UW-Extension publication *Combustion Products in the Home (B3440)*.**



# House Dust and Biological Contaminants

1. Would you describe your home as unusually dusty?  Yes  No
2. Is dust or dirt staining walls, ceilings, furniture or draperies?  Yes  No
3. Do home occupants have hobbies that create dust?  Yes  No
4. Do you ever use a humidifier or vaporizer in the house?  Yes  No
5. Do you ever use an air conditioner in the house?  Yes  No
6. Do you ever use a dehumidifier in the house?  Yes  No
7. Indicate whether your home has any of the following water problems:  
 leaky roof                       wet basement       leaky pipes  
 other, describe: \_\_\_\_\_
8. Is firewood stored indoors?  Yes  No
9. Do any furry pets live indoors?  Yes  No

**For further information on house dust and corrective actions, see UW-Extension publication *House Dust and Biological Contaminants (G3462)*. Available Summer 1989.**

## Ordering Extension Publications

To order a UW-Extension publication, contact your local county UW-Extension office (under Extension in the government listings in your phone book) or contact UW-Extension Publications, 30 N. Murray St., Rm. 245, Madison WI, 53715; (608) 262-3346.

## References

*EPA Indoor Air Quality Implementation Plan: Appendix A.*  
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