



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.

Tight Home Syndrome

B

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.

Radon

C

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.



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).



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.

F

Formaldehyde

1. Have composition wood products such as particleboard, furniture or cabinets been used extensively in home construction in the last two years? 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.

G

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:
 - fireplace coal furnace or boiler
 - oil furnace or boiler gas furnace or boiler
 - wood stove or furnace active or passive solar heat
 - electric furnace or boiler (LP or natural) electric baseboard or space heater
 - unvented gas or kerosene space heater
7. If you use a backup or supplementary heating system, it is a:
 - oil furnace or boiler combination furnace
 - gas furnace or boiler wood stove or furnace
 - fireplace electric baseboard or space heater
 - electric furnace or boiler (LP or natural) active or passive solar heater
 - 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:
 - indoors outdoors indoors during winter only

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.*
EPA/600/8-87/014, U.S. Environmental Protection Agency, 1987.
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