Air Pathways at Home

A walkthrough for drafts, window decisions, and changes you can observe.

An air pathway is a route air takes into, out of, or between rooms. Wind, temperature differences, and equipment that moves air can change those routes. Start where you notice a draft, dust, or a repeating odor.

PICK ONE ROOM → NOTE THE AIRFLOW → CHECK OUTDOORS → COMPARE DAYS

What to look for



Windows and doors
Check where you feel moving air. A pane can feel cold even if you do not feel a draft at the frame.



Between levels
In cold weather, warm indoor air can rise and leave higher in the home, while replacement air may enter lower down.



Exhaust fans and dryers
Equipment that vents outdoors sends air out. Replacement air can enter through openings elsewhere.



Outdoor conditions
Note nearby construction, wind, wildfire smoke, or a cold snap. Record whether windows were open or closed.

Example: A bedroom feels drafty during sidewalk work. The next day the work has stopped, but the draft at the closed window remains. Ask the building contact to check the frame.

Start with one observation

- ☐ Pick one room and note the window, door, vent, or other place where you felt air moving.
- ☐ Write down what was already running, such as the heat, a bathroom fan, the dryer, or a range hood.
- ☐ Note what each person felt and whether it changed elsewhere or after the activity ended.
- ☐ If a pattern repeats, share the location, timing, and equipment with a building or HVAC professional.

What to notice and track

Compare what you notice over time and after any changes.

FOLLOW THE PATTERN

Usual conditions → Noticed a change → Checked outside → Changed one thing → Compared again

Check outdoor conditions before opening windows. Compare the same room on days when conditions differ.

What you notice	What to try or record
Indoor odor, cleaner outdoor air	Reduce the indoor source if you can. Air out the room when outside conditions are suitable.
Construction dust	Close windows facing blowing dust and wait until outdoor conditions improve.
Wildfire smoke	Follow local alerts. Keep windows and doors closed during smoke if you can stay safely cool. Air out when outdoor air improves.
Cold or a draft	Note whether air is moving at a closed window or the glass just feels cold. Ask about weatherstripping if a draft repeats.
Timing and equipment	Record weather, window position, and any equipment already running. Include what changed when it stopped.

Questions to discuss

- Which opening or room keeps showing up in the notes?
- Does the change follow outdoor conditions or equipment use?
- Who can check how replacement air reaches this room?

For recurring symptoms, share the timing with a clinician.

Further reading

U.S. Department of Energy: Airflow in existing homes

American Lung Association: Wildfire smoke and lung health