How do I ventilate correctly?

In many cases, regular and adequate ventilation of rooms can prevent mold formation. When and how often the room should be ventilated depends on the characteristics of the room and its use.

FREE VENTILATION

Bedroom

Bedrooms should be ventilated intensively before going to bed and after waking up, ideally with the window wide open. The door to colder bedrooms should always remain closed, as warmer (and therefore more humid) air from other rooms quickly leads to condensation and thus mold formation on cold surfaces. Exterior walls, corners of rooms or areas behind and under the bed as well as behind solid furniture are often affected.

Window

If possible and desired, leave it tilted or fully open at night. This ensures the greatest air exchange. However, this may be necessary especially in winter and may not be suitable in summer. Otherwise, when you get up, you should ventilate the room intensively with the window wide open.

Living room

Regular ventilation is also necessary in the living room to remove moisture. If there are many plants or other sources of moisture in the room (e.g. damp laundry, aquarium), you should pay particular attention to regular ventilation. Lots of people in the room (for example at family gatherings) also cause a lot of moisture to be released through breathing and sweating. In this case, ventilation should be increased/more frequent.

Kitchen bathroom

A lot of moisture can accumulate in these rooms in a short period of time (showering, bathing, cooking). These “humidity peaks” should be eliminated immediately by intensive window ventilation. In the bathroom, especially if ventilation is limited, water should be wiped off the walls and floor immediately after showering. Windshield wipers are recommended for this. To eliminate “humidity peaks” in the bathroom and kitchen through ventilation, it makes sense to close the bathroom or kitchen door, otherwise the moisture will spread to the rest of the apartment.

Ground floor apartments

In apartments that are located on the ground floor or partly in the basement, similar problems can occur as in basement rooms. It is therefore important to ensure that no moist outside air gets into the apartment in hot weather. In the hot season, it is best to ventilate the room early in the morning and late in the evening.

Basement rooms

There are various ways to attach so-called groove seals, which seal around a window (sash) between the fixed part (frame) and the movable part without leaving a gap. Groove seals and center seals are now common in plastic windows. As a combination of groove and center seal, the triple seal is also enjoying increasing popularity. No less important: The glass seals between the outer and inner panes of the glazing should be considered separately, as they ensure a permanent seal and can only be replaced by removing the glazing bead or glass.

Cool rooms

Any rooms in the house that are cooler than others should be separated from warmer rooms with closed doors. Otherwise, mold can easily form due to condensation forming on cold surfaces (e.g. poorly insulated external walls, corners of rooms, behind massive furniture or thick curtains).

VOID PERMANENTLY TILTED WINDOWS

When windows are left open for long periods of time, energy consumption and heating costs increase significantly. The wall along the windows can cool quickly, leading to the formation of mold from condensation. It is better to ventilate regularly and as needed with forced ventilation

Ventilation

The aim is to achieve a high level of air exchange in a short time without the walls/surfaces cooling down too much. It is most convenient to open several windows wide at the same time for a short time. The exchange of air is significantly greater, especially when windows on opposite facades are open at the same time (draft). In the cold season, depending on the temperature and wind, it is sufficient to ensure sufficient ventilation 2-3 times a day for around 5 minutes per room with one or more windows open. When you get up in the morning, the bedroom should be ventilated for 5-10 minutes with the window wide open. During and immediately after cooking or showering, the windows in the kitchen and bathroom should be wide open for 5-10 minutes. In the warm season, the room usually needs to be ventilated a little longer (10-20 minutes per airing, depending on the temperature and wind) to ensure sufficient air exchange. This is because air exchange occurs more slowly when the temperature outside and inside the home is approximately the same.
If there is a ventilation system for the entire apartment, window ventilation can be almost completely eliminated. Shock ventilation is only necessary if there is an increase in humidity, increased odors or the entry of pollutants. If ventilation systems are only available in certain rooms (e.g. a decentralized ventilation unit or an exhaust fan in the bathroom), the rest of the apartment should be ventilated through windows. Ventilation systems with additional functions such as the temporal variation of the air change or a “house circuit”, i.e. a one-off, temporary increase in the air change, allow the ventilation to be adapted to individual room usage cases.

Regular maintenance of all ventilation systems

All ventilation systems (including bathroom ventilation and kitchen exhaust) should be regularly checked for functionality and filters should be replaced regularly. As with the heating system, regular maintenance is necessary to ensure that the ventilation system functions as intended. This maintenance should ideally be carried out once a year by qualified personnel and include a functional test (sufficient air exchange) and cleaning. Depending on the degree of pollution in the air (dust, oil, etc.), the filter should be replaced at least once a year (more often if necessary). Otherwise, mold may form in ventilation systems. Tenants should discuss with the landlord who is responsible for replacing the filter

Respond to building moisture with increased ventilation

Both in new buildings and after renovations, building moisture can occur for a certain period of time. What is crucial is how much moisture gets into the building, for example during plastering and screeding work. Due to the construction method, solid buildings generate more moisture than lightweight houses. For cost reasons, the “building drying out” that was common before initial occupancy almost never occurs anymore. First-time tenants are then obliged to live in the apartments “dry”. Any remaining building moisture should be removed from the building by increasing ventilation in all rooms. It can be assumed that this will only be achieved after 1 to 2 years for new buildings (solid construction). Higher heating costs can be expected during this period

Dry laundry in the apartment

The basic rule is: if possible, avoid drying laundry in the apartment. If washing or drying rooms are available, these should be used. In tumble dryers where the water in the exhaust air is not removed through condensation, the exhaust air hose must be routed outside, otherwise moist exhaust air will remain in the room.

External ventilation openings and prevention of mold

Thanks to their airtight design, outside air outlets and air conditioning systems can ensure passive air exchange regardless of the ventilation behavior of the room users. In many cases, this can improve air exchange and thus moisture removal. Rooms where moisture accumulates, such as drying rooms that are frequently used in apartments, need to be ventilated more frequently. On the one hand, inadequate ventilation through windows can lead to undesirable cooling of walls and ceilings. In such rooms, appropriate technical solutions (exhaust air systems) must be taken into account.

Ventilation control after apartment renovation

In order to prevent increased humidity in the apartment, it may be necessary to adjust the ventilation behavior after an energy renovation. One reason for this is that the building envelope becomes “tighter” as a result of energy-efficient renovation, which reduces passive air exchange. Failure of passive ventilation should be compensated for by increased active ventilation. Landlords must always inform their tenants about the need to adjust ventilation behavior after renovation work.