

# 1. Living in Concrete Housing - Features

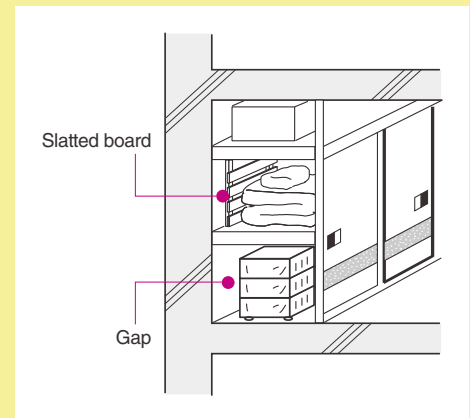
## (1) Condensation, Mold, Mites, and Volatile Organic Compounds

### ◆ Ventilation and Fresh Air ◆

Apartments have in recent years become more airtight, increasing the efficiency of air conditioning and heating. This has however increased problems such as condensation, mold, mites, and volatile organic compounds, so there is a greater need for good ventilation.

#### ◎ General Notes about Ventilation.

- When windows are sealed or closed for a long time, periodically use the ventilation fan to ventilate the room thoroughly.
- When storing items in closets or ceiling spaces, first lay matting, and leave a 10cm space around and underneath the item to ensure airflow. Also, periodically open the sliding doors (about 3cm).
- Situate items such as furniture, stereos, and pianos away from walls in order to ensure adequate airflow behind them.
- When ventilating a room, please open not only the windows but also internal wooden doors for a period of 30-60 minutes 2-3 times a day, in order to ensure full air exchange. Additionally, using internal ventilation fans (toilets, bathrooms, etc.) for as long a period as possible increases their effectiveness. Please note that some apartments use a low flow, constant ventilation system, which uses constant ventilation to ensure effective air exchange. Please refer to the user manual for details
- Please note that if you use a ventilation fan near an open window, air circulation may be limited to a small area of the room, resulting in insufficient ventilation to the room as a whole.



### ◆ Heating Equipment ◆

Open-type heaters (oil, gas, and fan heaters without an external exhaust duct) give off moisture and harmful levels of carbon dioxide. Please ensure adequate ventilation when using these items.

### ◆ Condensation ◆

When warm, moist air comes into contact with cold walls or window glass, the moisture in the air forms water droplets, or condensation.

Water vapor is given off not only when cooking and using the bath, but also from oil and gas heaters, as well as from people's bodies.

Condensation does not only occur near these moisture sources, but can spread throughout the whole apartment to areas without moisture sources. For example, north-facing rooms and inside closets can develop surprisingly large amounts of condensation.

### ◎ Areas Prone to Condensation

Areas that are prone to condensation include windowpanes, walls in north facing rooms, closet walls, and bathroom and toilet walls. In particular, closets on north-facing walls are prone to condensation if they have reduced air circulation through having futons stored in them.

### ◎ If you Ignore Condensation

Ignoring condensation can lead to growth of mold, peeling of paint and wallpaper, rotting of tatami and wooden fixtures, and corrosion of metal parts. These make the apartment a less pleasant place in which to live, and can shorten the life of the apartment itself.

### ◎ Preventing Condensation

- A large amount of moisture is given off both when preparing food and eating, so ensure good ventilation at these times.
- After taking a bath, replace the bath cover and remove bathroom moisture by either opening the window or turning on the ventilation fan, to ensure moisture does not spread to the rest of the apartment.
- Water droplets can accumulate at the bottom of windows, so if you notice these forming, please wipe them off with a dry cloth.
- To minimize the difference between internal and external temperatures, use heating in moderation.
- Please note that humidifiers can cause condensation.



### ◆ Mold ◆

Mold will grow anywhere that the temperature and humidity conditions are suitable.

### ◎ Places where mold grows easily

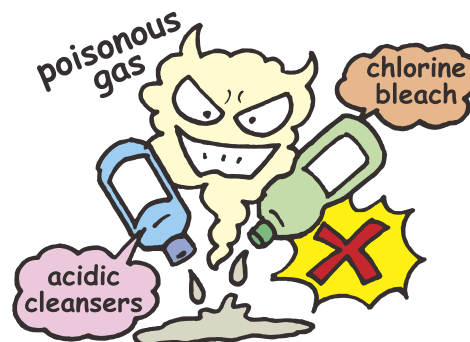
Anywhere there is a buildup of condensation or moisture.

### ◎ If mold starts to form

If mold starts to form, use a commercial mold remover or mold prevention agent to remove it as soon as possible.

### ! Caution

Do not mix or use chlorine bleaches together with acid cleansers or detergents. Doing so will release poisonous gas, which is very dangerous. When using bleaches, cleansers or detergents, carefully read the instructions for use printed on the container.



### ◎ Mold Prevention

- Mold buildup can be prevented in the same way as condensation, by ensuring adequate ventilation.

### ◆ Mites ◆

Mites generally live and are active in summer, and are inactive in winter. However, recent lifestyle changes such as the increasing spread of heating and humidifiers have meant that mites are becoming active throughout the year, including in winter.

#### ◎ The Four Conditions Necessary for Mites

- ① A temperature of 25-30°C
- ② Humidity of 70-85%
- ③ Food, such as dust, crumbs, and skin cells
- ④ A concealed place to live

#### ◎ If You Have an Outbreak of Mites

Mites are a cause of a range of health problems, such as itching, inflammation, pimples, and asthma.

#### ◎ How to Prevent Mites

- Please do not cover tatami with carpets and floor coverings. These restrict the airflow in the tatami, creating an ideal living environment for mites.
- Be sure to thoroughly clean up dust by vacuuming. As well as removing mites, this promotes air circulation and drying of the tatami.
- Ensure there is good air circulation and ventilation. Using a dehumidifier starting from May or June will limit the outbreak of mites.

### ◆ Volatile Organic Compounds ◆

Formaldehyde and other volatile organic compounds are used in construction materials. For example, formaldehyde is widely used in adhesives for construction and furniture, and to increase wrinkle resistance in fabric. If it is released into the air, it can influence the living environment and people's health, leading to itchy eyes and noses. In particular, if you move into a new apartment or have new furniture, you may find your eyes and nose become irritated after the apartment has been closed for a long time.

#### ◎ Managing Volatile Organic Compounds

Good ventilation is effective against the buildup of volatile organic compounds.

- When you move in, open the windows to ensure thorough ventilation. (Please refer to page 50 for details regarding ventilation)
- Periodically air out the apartment once you have moved in, especially in summer, on hot and humid days, or when you have been absent for several days.
- Upon buying new furniture, if you should notice a strong smell, itchy eyes, or a dry throat, immediately open the windows and ventilate the area thoroughly.

If symptoms should continue in spite of taking these precautions, please consult a physician.

## (2) Floors - Waterproofing and Leaks

### ◆ Beware of Leaks through the Floor ◆

In apartments, only the bathroom has a waterproof floor. On concrete floors, even a small spill can leak through to the apartment below.

Common Causes Include:

- The washing machine drain hose becoming detached.
- Toilets or bathrooms overflowing.
- Washing the floor of the entranceway or toilet.
- Washing the floor of the balcony or hallway, or watering plants.

If water leaks through to apartments below, a result of your own negligence, in addition to seriously inconveniencing the person living below you, you will be required to pay for repair of ceilings, tatami mats, and fittings, as well as compensation for damaged items such as floor coverings and furniture.

### ◆ Preventing Leakage ◆

- ◎ Ensure that the washing machine drainage hose is securely attached to the drain on the washing machine stand. Please check the water supply hose and the drainage hose daily.  
Where the apartment does not have a washing machine stand, lengthen the drain hose to drain into the bathroom or move the washing machine closer to the bathroom to ensure proper drainage.
- ◎ Do not flush disposable diapers, newspaper, tissue paper, or sanitary products down the toilet. Doing so can cause blockages and overflowing.
- ◎ Avoid placing deodorizers in the flush tank as this may prevent the moving metal parts from operating properly, thus hindering flushing.
- ◎ Limit your cleaning of the entranceway and toilet floors to wiping with a damp cloth.
- ◎ Do not wash the corridors or stairs with water.
- ◎ Do not do laundry or play with water on the balcony.
- ◎ Keep your balcony drain clean at all times.

## (3) Noise Pollution

Concrete transmits noise and vibration surprisingly easily. The apartment block is constructed with regard to minimizing the sounds of doors closing, and baths and toilets draining. However, apartment blocks have many people living closely together, so some noise is unavoidable. Please be aware of this, and try to avoid bothering other people with loud noises.

If you have small children, please tell them not to jump in the apartment.

Additionally, wooden floors transmit sound easier than tatami, so try to limit sound by covering them with carpet or a floor covering.

Please keep stereos, televisions and musical instruments at a volume that will not cause annoyance to neighbors.

Please open and shut doors and windows quietly early in the morning and late at night.

