

–For commercial facilities equipped with air conditioning systems with no ventilation–

Recommended ventilation method for resolving "poorly ventilated closed spaces" with attention paid to heat illness prevention

In commercial facilities equipped with **non-ventilation type air-conditioning systems**^{*1}, the **required volume flow rate** (i.e., full opening of windows for **several minutes every 30 minutes**)^{*2} under a high ambient temperature may contradict the **standards for room temperature and relative humidity (28°C or less, 70% or less)**^{*3} as specified by the Law for Environmental Health in Buildings.

To achieve both the **ventilation** for resolving "poorly ventilated closed spaces," which is one of the **risk factors for COVID-19**, and the **prevention of heat illnesses**, note the following points.

Tips on ventilating by opening windows

- ❑ **Keep opening the windows on two sides of the room as much as possible and maintain a continuous airflow into the room**^{*4} so that the temperature and relative humidity in the living room can be kept **below 28°C and 70%**, respectively.
 - **Set the room temperature for the air conditioner as low as possible.**
 - If windows are located on only one side of the room, **open a door or windows set high up on the wall or in the ceiling.**
- ❑ If the windows cannot be kept open often enough to maintain the room temperature and relative humidity at **28°C and 70% or less**, respectively, the **use of portable air cleaners**^{*5} **in combination with window ventilation** will be **sufficient to compensate for the lack of ventilation.**

Tips on using portable air cleaners

- ◆ Use portable air cleaners **equipped with HEPA filters** whose **air flow rate is about 5 m³/min or more.**
- ◆ Place portable air cleaners **within 10 m² of places where people are located.**
- ◆ **Match the direction of the ambient inflow air with the direction of the air cleaners' outflows** to prevent stagnation of air^{*6}.

Pay close attention to **hydration and daily health conditions**^{*7} to prevent heat illnesses.

Reference

For buildings equipped with air conditioning systems with ventilation

Ensure that the **required volume flow rate (30 m³/hour per person)^{*2}** is met by **adjusting the ambient air intake** to maintain the **standards for adjusting the air environment** specified in the Law for Environmental Health in Buildings and **keep** the room temperature and relative humidity at **28°C and 70% or less^{*3}**, respectively.

Standards for air environment adjustment as stipulated in the Law for Environmental Health in Buildings (excerpt)

Item	Standard
CO ₂ content	≤ 1,000 parts per million (= 1,000 ppm or lower)
Temperature	1. 17°C to 28°C 2. If the room temperature is lowered to a temperature below that of the outside air, the difference should not be significant.
Relative humidity	40% to 70%

- *1 Note that an air conditioner equipped with indoor air intake ports (not connected to a ventilation duct) circulates the indoor air only. It does not intake ambient air.
- *2 For more information on the ventilation methods, see the leaflet "Recommended ventilation method for resolving 'poorly ventilated closed spaces.'"
- *3 If the room temperature and relative humidity specified by the Law for Environmental Health in Buildings (28°C or less/70% or less) are maintained, the standard for heat illness prevention (heat index [WBGT Value] 29°C) will not be exceeded.
- *4 Adjust the window openings while frequently monitoring the temperature and relative humidity in the room. Also, pay attention to security when opening windows.
- *5 Note that the use of portable air cleaners only supplements ventilation, so using portable air cleaners with the windows closed is not sufficient for COVID-19 prevention.
- *6 If you install partitions, make sure that their direction and height will not obstruct the airflow. Alternatively, install portable air cleaners between the partitions to prevent airflow stagnation.
- *7 For more information on heat illness prevention, refer to the leaflet "Heat illness prevention × COVID-19 prevention, make a 'new lifestyle' healthy!"