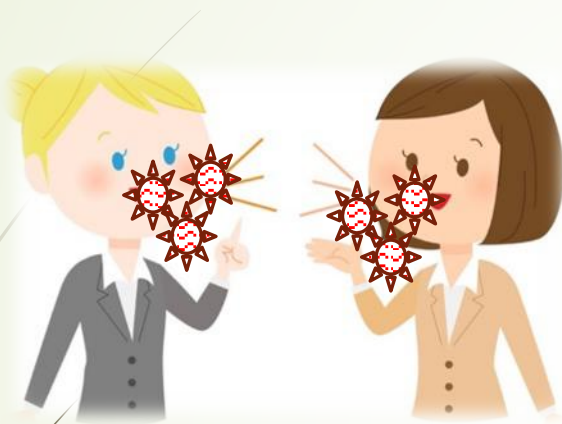


# What you need to know about SARS-CoV2

1. Human-to-human coronavirus (SARS-CoV2) infection
2. Excretion of virus from the body and its scattering
3. What is the infectivity of the scattered virus?
4. How to eliminate virus infectivity

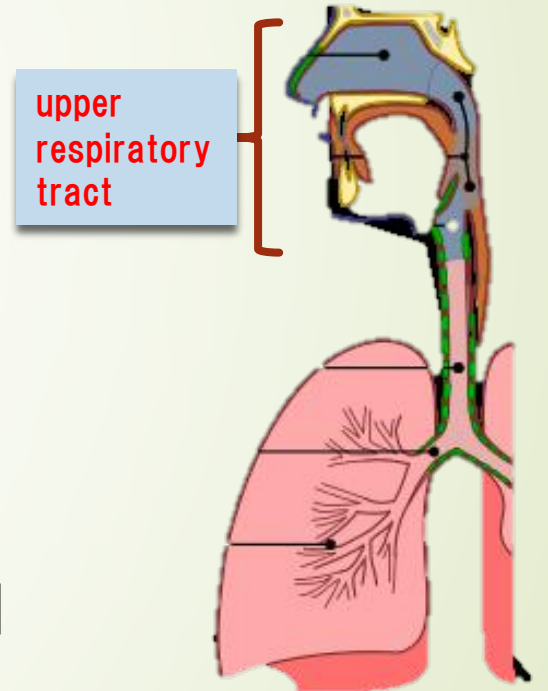
# About discharge of new coronavirus from infected person



- Humans with mild fever and sore throat are excreting the virus. Their activity has become a virus spreading factor.
- Aerosols are produced by the mouth through conversation. It floats in the air for up to 3 hours as an "aerosol," which has smaller particles than droplets.
- There is also viral transmission via aerosol. Risks increase in environments where saliva is scattered, such as short-range conversations and karaoke.
- Since the virus is excreted before the symptoms appear, it may be discharged to the environment without realizing it.

# Coronavirus infection and shedding

- The virus has been found in the upper respiratory tract of people infected with the novel coronavirus (SARS-CoV2). The patient's saliva contains the virus.
  - The highest viral load in the pharynx has been observed when fever and respiratory symptoms develop.
  - The virus has been excreted before the onset of symptoms.
  - Spread of viral infection: It is estimated that 44% of cases of human-to-human transmission were transmitted by preclinical patients. (95% confidence interval, 25-69%)
- Xi He et al., Nature Medicine, 15 April 2020



# How long is the infectivity of SARS-CoV2 maintained in the environment?

The virus remains infectious for 7 days at room temperature

4°C	22°C	37°C	56°C	70°C
14 days	7 days	1 days	30 min	1 min

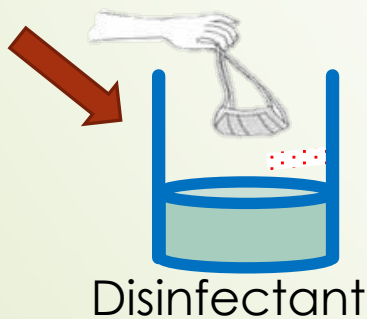
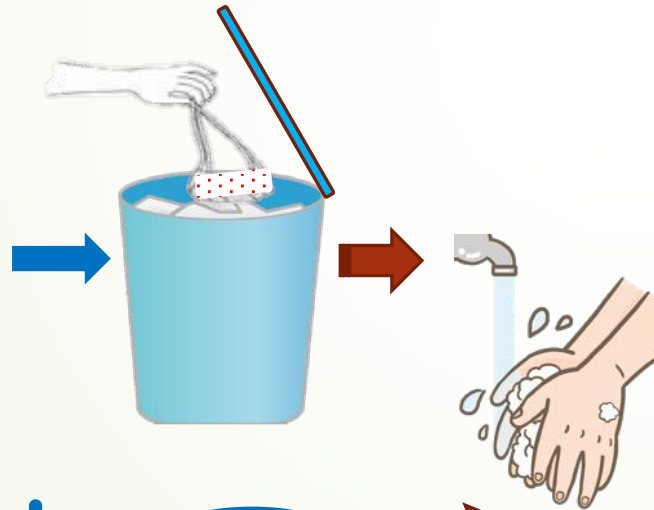
Infectivity varies depending on the material of the surface to which the virus is attached (the survival time is extended by the presence of organic matter)

PAPER	TISSUE PAPER	WOOD	CLOTH	GLASS
30 min–12 hrs	30min	12 hrs–1day	1day	2–4 days
BILL	STAINLESS	PLASTIC	MASK/INSIDE	MASK/OUTSIDE
2 days	3–4 days	3–4 days	4 days	7 days

The Lancet Microbe 2020, online April 2.  
Chinese University Hong Kong, reports

**The virus attached to daily necessities has been infectious for several hours to 4 days!  
Be careful when removing the mask!**

# How to remove the mask without getting the virus



- The surface of the mask may be pathogenic, so do not touch it during use.
- Do not rub your eyes with your hands!
- Hold the elastic band on one ear and remove it from the face
- Hold the rubber band on the other side and remove it from your face.
  - \* Be careful not to touch the surface of the mask.
- Hold only the elastic band and dispose in a trash can with a lid.
- Alternatively, be careful not to touch the surface of the mask, put it in a plastic bag, close the mouth, and discard.
- When reusing the mask, soak it in 0.05% chlorine bleach and inactivate it before washing.
- After discarding the mask, wash your hands thoroughly with soap and running water.

# How to deal with virus scattering

- ▶ When coughing or sneezing, the virus will be scattered around (2m).
- ▶ Wearing a mask controls the scattering (preventive effect)
- ▶ Removing the infectivity of the virus.
  - Clean the hands with soap (the viral membrane proteins will also be destroyed)
- ▶ Coronaviruses have a lipid membrane.
  - ▶ Disinfect lipid membrane with antiseptic (more than 60% alcohol)
- ▶ Door knobs, handrails, desks, etc ...
  - ▶ 0.05% chlorine-based bleach (wearing gloves) or neutral detergent (0.5%, 1 L 1 cap) is also effective. <http://idsc.nih.go.jp/disease/sars/sars03w/index.html>

