

(As of November 2020)

10 things to know about the COVID-19 as of right NOW

Number of patients and pathogenicity of COVID-19

1. How many are confirmed as COVID-19 positive in Japan?
2. Among those confirmed as COVID-19 positive, how many are in a critical state or have died?
3. Among those confirmed as COVID-19 positive, what are the risk factors for increased severity or death?
4. Are there more COVID-19 cases in Japan than other countries?

Infectivity of COVID-19

5. How long is a COVID-19 positive individual infectious towards others?
6. Among those confirmed as COVID-19 positive, how many infect others?
7. What precautions should we take to prevent the spread of COVID-19?

Testing and Treatment for COVID-19

8. What tests are used to diagnose COVID-19?
9. How do you treat COVID-19?
10. Is there a COVID-19 vaccine? When will it be available for the general public?

Q How many are confirmed as COVID-19 positive in Japan so far?

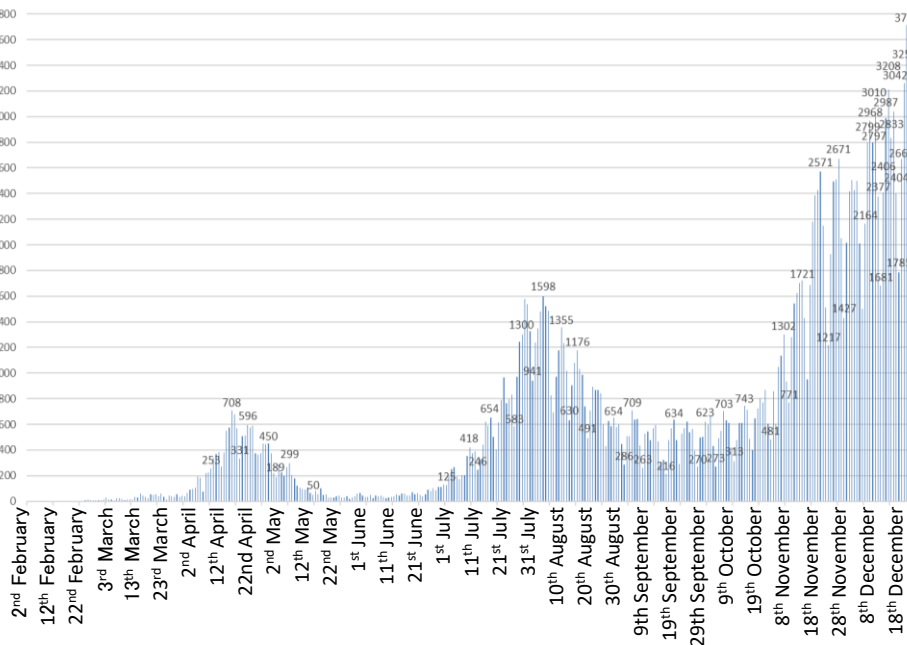
A To date, there have approximately been **209,980** COVID-19 positive cases in Japan, accounting for around **0.1%** of the total population. For more details and recent numbers please refer to the following link:

<https://www.mhlw.go.jp/stf/covid-19/kokunainohasseijoukyou.html>

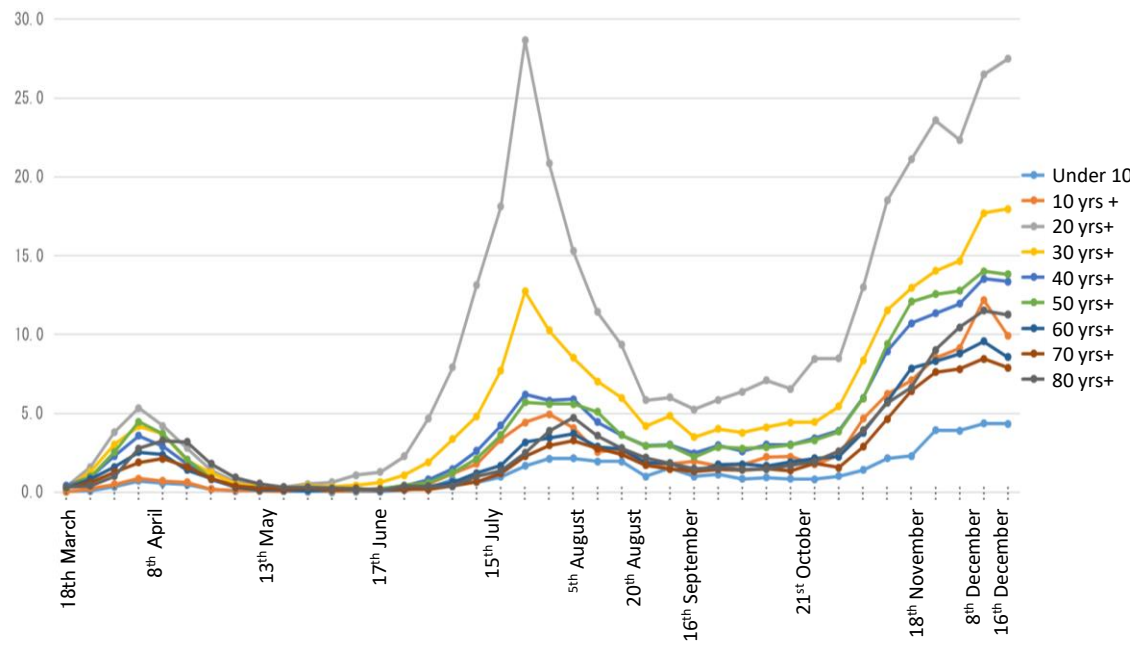
* Some people do not show symptoms even if they are infected and do not go to a medical institution, so this does not necessarily represent all COVID-19 positive cases.

* As of December 25, 2020.

Number of confirmed positive cases in Japan
(Total number / report date)



Number of confirmed positive cases per 100,000 individuals
(By age group/weekly report)



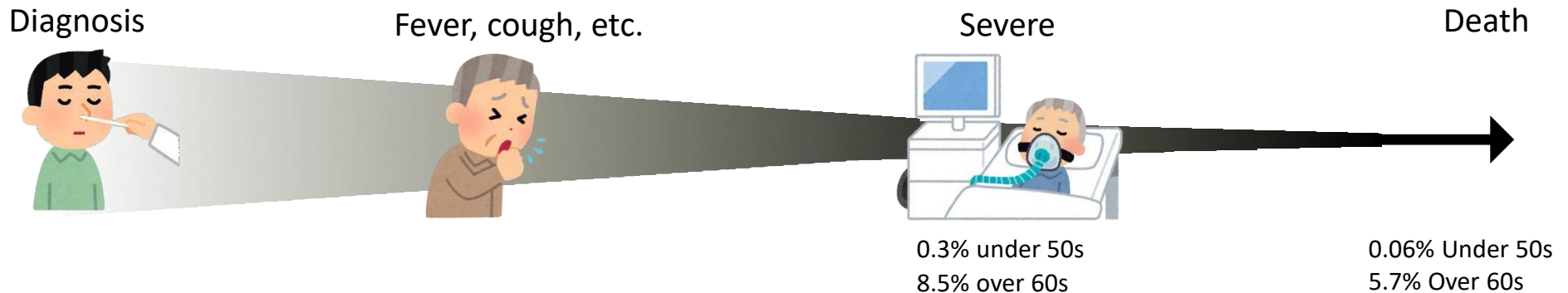
Q Among those confirmed as COVID-19 positive, how many are in a critical state or have died?

A Of those confirmed as COVID-19 positive, the numbers of the severe cases and deaths vary with age as the older generation tends to have higher severity and mortality rates, while the younger generation tends to have lower rates.

The overall severity and mortality rates are lower than before; the breakdown of confirmed cases after June is as follows:

- Cases with severe symptoms: approx. 1.6% (0.3% under 50s, 8.5% over 60s)
- Death cases: approx. 1.0% (0.06% under 50s, 5.7% over 60s)

* The "percentage of people who become severe" is the rate of cases confirmed as COVID-19 positive (including asymptomatic cases) that have been treated in the intensive care unit or treated with a respirator, or have died.



Severe Cases from COVID-19 (%)

Age Month	0 -9	10 -19	20 -29	30 -39	40 -49	50 -59	60 -69	70 -79	80 -89	90-	計
Jun.-Aug.	0.09	0.00	0.03	0.09	0.54	1.47	3.85	8.40	14.50	16.64	1.62
Jan.-Apr.	0.69	0.90	0.80	1.52	3.43	6.40	15.25	26.20	34.72	36.24	9.80

Number of Deaths from COVID-19 (%)

Age Month	0 -9	10 -19	20 -29	30 -39	40 -49	50 -59	60 -69	70 -79	80 -89	90-	計
Jun.-Aug.	0.00	0.00	0.01	0.01	0.10	0.29	1.24	4.65	12.00	16.09	0.96
Jan.-Apr.	0.00	0.00	0.00	0.36	0.61	1.18	5.49	17.05	30.72	34.50	5.62

Q Among those confirmed as COVID-19 positive, what are the risk factors for increased severity or death?

A Among those confirmed as COVID-19 positive, the elderly and those with preexisting medical conditions are more likely to increase in severity.

Underlying diseases that increase the risk of severity include: Chronic obstructive pulmonary disease (COPD), Chronic kidney disease, Diabetes, Hypertension, Cardiovascular disease, and Obesity.

In addition, although it is not clear whether pregnant women and smoking history are likely to become severe, it is important to be cautious.

Severity rate (likelihood of increased severity) of each age group compared to those in their 30s

Age	Under Teens	Teens	20s	30s	40s	50s	60s	70s	80s	90s and Over
Severity rate	0.5 times	0.2 times	0.3 times	Baseline	4 times	10 times	25 times	47 times	71 times	78 times

* The "severity rate" is the rate of COVID-19 positive individuals (including asymptomatic cases) that have been treated in the intensive care unit or treated with a respirator, or have died.

Underlying diseases at risk of increased severity

Chronic kidney disease

Hypertension

Chronic obstructive pulmonary disease (COPD)

Cardiovascular disease

Diabetes

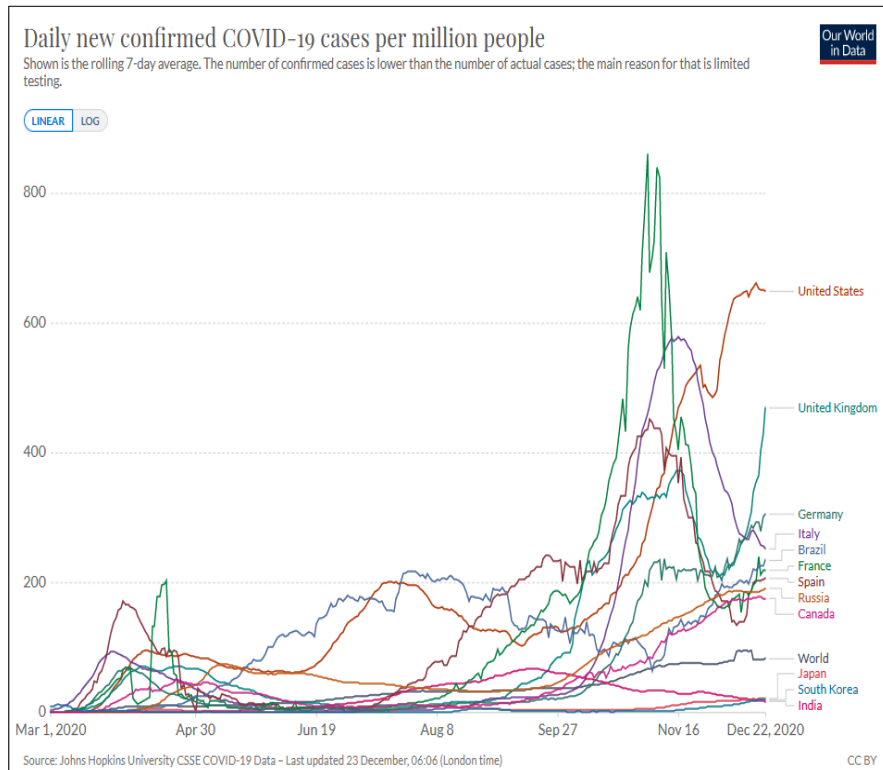
Obesity (Over BMI 30)

- It is not clear whether pregnancy or smoking history contributes to the risk of increased severity, but caution is advised.

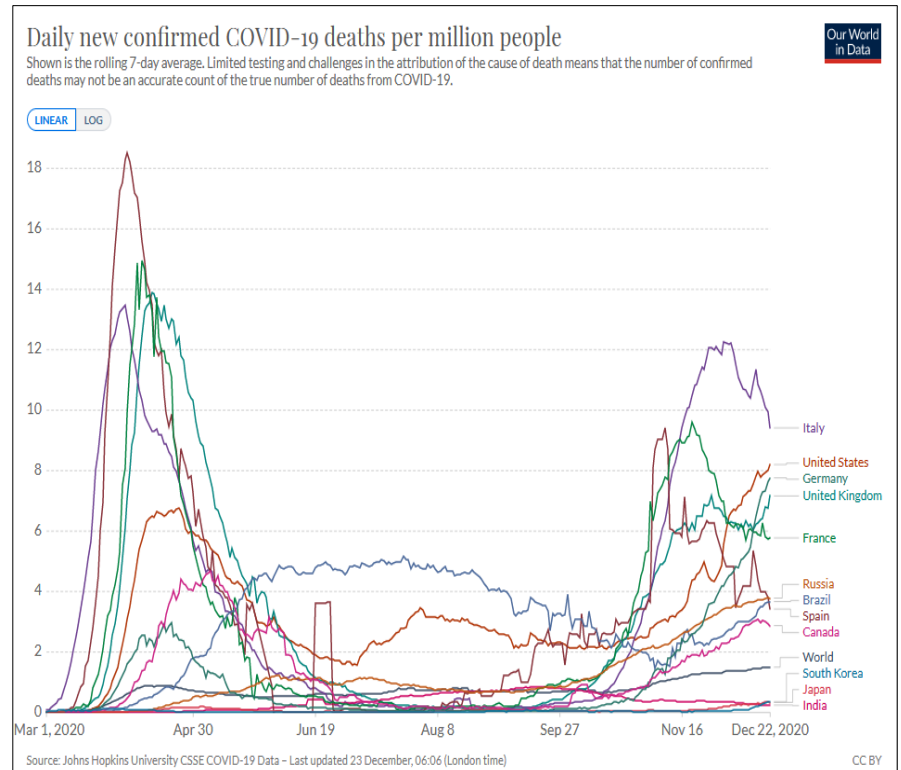
Q Are there more COVID-19 cases in Japan than other countries?

A The numbers of confirmed cases and deaths in Japan per population have been lower than the world's average, and countries with the highest number of confirmed cases.

Number of confirmed cases per million
(weekly average)



Number of deaths per million
(weekly average)



Source: Our World in Data (as of December 24th, 2020)

Q How long is a COVID-19 positive individual infectious towards others?

A: A person infected with COVID-19 can start infecting others from 2 days before the onset of symptoms, until approximately 7 to 10 days after the onset of symptoms. In addition, viral shedding is particularly high before and after the onset of symptoms. Thus, those confirmed as COVID-19 positive must work hard to prevent transmission by refraining from going out for unnecessary reasons, regardless of the presence or lack thereof symptoms.

* From edition 4.1 of the medical guide for COVID-19

Q Among those confirmed as COVID-19 positive, how many infect others?

A: Less than 20% of those confirmed as COVID-19 positive infect others, meaning the majority overall are not infecting others. Therefore, if we can prevent COVID-19 positive individuals from infecting others such as by not wearing proper protection (e.g. masks) in the Three-C environments (closed spaces, crowded places, close-contact settings), the spread of COVID-19 can be suppressed. If you are an individual that has been confirmed as COVID-19 positive, it is important to act in an appropriate manner so that you can prevent others from becoming infected; please refrain from going outdoors for unnecessary and non-urgent reasons when feeling ill, and always wear a mask when interacting with others.

* It is known that wearing a mask reduces the amount of viral load inhaled when in close proximity to those already infected with COVID-19. (chances of becoming infected is reduced by 60-80% when an infected person is wearing a cloth mask, and reduced 20-40% when a non-infected person is wearing it in proximity to an infected individual). Ueki, H., Furusawa, Y., Iwatsuki-Horimoto, K., Imai, M., Kabata, H., Nishi

Q What precautions should we take to prevent the spread of COVID-19?

A: The routes of transmission are generally through droplets or through direct contact with a COVID-19 positive individual. Therefore the risk of infection increases in a 3Cs (closed spaces, crowded places, close-contact settings) environment.

Situations such as social gatherings, eating and drinking with a large group of people or remaining in an eating or drinking area (e.g. restaurant setting) for a long time, having conversations without masks, living in a small communal area, and changing seating arrangements, may increase the risk of infection and should be avoided.

"Five scenarios" with a higher risk of infection

Scene① Eating and drinking at social gatherings

- The effects of alcohol uplifts the atmosphere, reducing one's attention span and it decreases one's hearing ability, leading to people becoming louder as they begin to raise their voices.
- When a large number of people stay for a long time, especially in smaller spaces separated by dividers (thin walls, Japanese sliding doors, etc.), the risk of infection increases.
- In addition, sharing glass and chopsticks increases the risk of infection.



Scene② Eating and drinking with a large group of people for a long time

- Eating and drinking for a long time, eating and drinking with entertainment, and late-night pub/bar-crawl increase the risk of infection compared to short meals.
- When eating and drinking with a large number of people, for example, 5 or more people, the risk of infection increases as people start talking out loudly, causing the droplets to fly around, creating a higher chance of an infection.



Scene③ Socializing without a mask

- Increased risk of infection by droplet infection or microdroplet infection by talking at close range without a mask
- An example of an infection that has occurred in a social event without a mask has been confirmed at events such as daytime karaoke.
- It is important to be cautious even in the car when getting on a car or bus



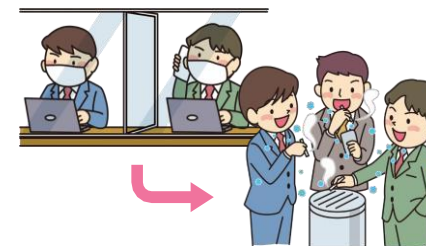
Scene④ Communal living space in a small area

- Living in a small communal space increases the risk of infection because the closed space is shared for a long time.
- Cases of suspected infection in common share spaces such as dormitory rooms and toilets have been reported.



Scene⑤ Moving Locations

- When moving locations, for example, when you are on a break at work, your risk of infection may increase due to relaxation and changes in the environment
- It has been believed that infections occur in break rooms, smoking areas, and changing rooms.



Q What tests are used to diagnose COVID-19?

A Tests for diagnosing COVID-19 include PCR tests, antigen quantitative tests, antigen qualitative tests, and etc. Each of these tests detect if a virus is present in the subject's body and/or is infected with the virus.

With the development of new test methods, it is now possible to use saliva and nasal swabs as well as nasopharyngeal swabs, depending on the type of test or the type of symptoms the individual is experiencing.

The antibody test confirms whether the individual has been infected with COVID-19 in the past, thus it does not confirm whether the individual currently has COVID-19 or not.

Person to be inspected		PCR test (including LAMP)			Antigen test (quantitative)			Antigen test (qualitative)		
		Nasopharynx	Nasal cavity	Saliva	Nasopharynx	Nasal cavity	Saliva	Nasopharynx	Nasal cavity	Saliva
People with symptoms	Within 9 days of onset	○	○	○	○	○	○	○ ※1	○ ※1	×
	After 10 days from onset	○	○	×	○	○	×	△ ※2	△ ※2	×
People without symptoms		○	×	○	○	×	○	×	×	×

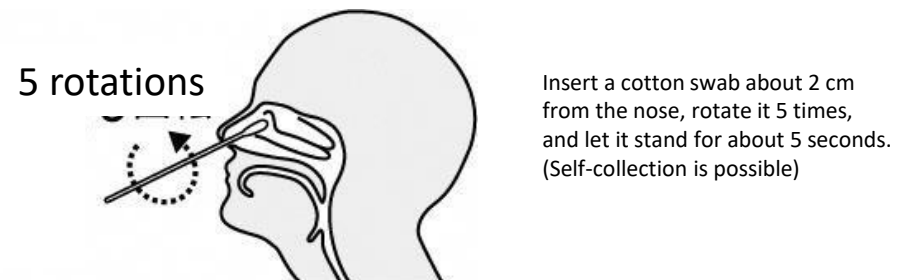
* 1 Used within 2 to 9 days after onset * 2 If negative, perform nasopharyngeal PCR test, etc.

Example of sample collection

(For antigen qualitative test, nasopharyngeal swab and nasal swab)



Nasopharyngeal swab collection



Nasopharyngeal swab collection

Q How do you treat COVID-19?

A: For mild cases, typically there is a follow-up checkup and treatment for symptoms such as antipyretics (e.g. pain killers) when necessary, as mild cases tend to subside.

If respiratory failure is observed, oxygen administration, steroids (a drug that suppresses inflammation), and antivirals* 1 may be administered. If symptoms do not improve, intensive care with a respirator, etc. may be performed * 2.

As a result of these treatments, the death rate of those hospitalized for COVID-19 has decreased.

If you experience symptoms such as a fever or cough, first consult your local medical institution.

* 1 Remdesivir is an antiviral drug approved for the treatment of COVID-19 in Japan. (As of October 29)

* 2 The percentage of those who require intensive care or die is about 1.6% (0.3% for those in their 50s or younger, 8.5% for those in their 60s or older).

From Edition 4.1 of the medical guide for COVID-19

Status of drug treatment and mortality rate for hospitalized cases (COVID-19 registry research analysis results * 4)

○ Cases hospitalized after June tend to have the following tendencies compared to cases hospitalized before June.

- Increased administration rate of remdesivir and steroids, which are indicated for COVID-19, especially in cases of severe illness at the time of hospitalization.
- The rate of death after hospitalization decreased in all age groups in both mild / moderate and severe cases at hospitalization.

Mild / moderate cases on hospitalization

		Cases hospitalized before June 5	Cases hospitalized after June 6
Status of drug treatment	Remdesivir ^{※6}	0.2%	7.0%
	steroid drug (Expect for Ciclesonide)	4.3%	6.2%
Percentage of deaths after hospitalization (by age)	0-29	0.0%	0.0%
	30-49	0.2%	0.0%
	50-69	1.1%	0.0%
	70-	10.6%	5.8%
	All ages	2.6%	0.5%

Severe cases on hospitalization ^{※5}

		Cases hospitalized before June 5	Cases hospitalized after June 6
Status of drug treatment	Remdesivir	0.9%	21.0%
	steroid drug (Expect for Ciclesonide)	23.1%	39.7%
Percentage of deaths after hospitalization (by age)	0-29	5.6%	0.0%
	30-49	2.2%	0.0%
	50-69	10.9%	1.4%
	70-	31.2%	20.8%
	All ages	19.4%	10.1%

* 4 In the welfare and labor science research "Registry research on COVID-19" (Principal Investigator: Takao Oomagari), we analyzed inpatient cases registered in the registry by September 4.

* 5 If any of oxygen administration, ventilator management, SpO2 94% or less, and respiratory rate 24 times / minute or more is applicable at the time of admission, it is classified as severe at admission.

* 6 For Remdesivir, the percentage of patients who received drugs for the purpose of treating COVID-19, not the percentage of all cases.

Q Is there a COVID-19 vaccine? When will it be available for the general public?

○ **Regarding the development of COVID-19 vaccines**

A Many research and development projects are being carried out in Japan and overseas. Some candidates have been approved for emergency use and vaccinations have started in other countries.

○ **Regarding the timing of vaccination availability**

A Vaccine candidates have been submitted for approval in Japan. The approval process will be reviewed based on the results of clinical trials in Japan and overseas. We are in preparation for those who wish to be vaccinated to receive the vaccine as soon as possible.

○ **Regarding the effectiveness and safety of the COVID-19 vaccine**

A In general, vaccines against infectious diseases are effective in preventing onset and risk of severity. Pfizer, Moderna and AstraZeneca have announced that in their Phase 3 studies, interim results have shown that for those that received the vaccine, there were fewer that contracted COVID-19 than those who did not receive the vaccine.

Although health hazards due to side effects from vaccines are extremely rare, there is no guarantee that side effects would not occur. Currently, clinical trials are in the process of confirming the type of side effects that may occur due to the COVID-19 vaccine.

It has been reported that overseas vaccines that are planned to be supplied to Japan*, have had some adverse effects such as pain at the vaccination site, headache, malaise, and muscle pain; however, this list includes symptoms that have no causal relationship with the vaccination.

* Vaccines under development by Pfizer, AstraZeneca, Moderna, and Novabacs

(As of December 25, 2020)