

# COVID-19

## Epidemic Prevention and Control Manual

For Workplace

Jiangsu Provincial Center for  
Disease Control and Prevention





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# Chapter 1

## Basics of COVID-19





## 1 What is 2019-nCoV ?

The 2019-nCoV belongs to the Betacoronavirus 2b lineage, which has the envelope. The genome sequences of the virus are typically different from those of SARSr-CoV and MERSr-CoV. The virus is sensitive to ultraviolet light and heat.

56°C for 30 minutes , 75% ethanol, chlorine-containing disinfectant, peracetic acid and hydrogen peroxide can effectively inactivate the virus. The International Committee on Taxonomy of Virus named the 2019-nCoV virus as SARS-CoV-2.

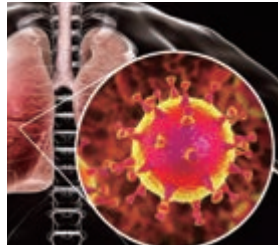
## 2 What is COVID-19 ?

COVID-19 refers to a type of pneumonia caused by 2019-nCoV infection. COVID-19 is the official name given by the World Health Organization.

3

### What are the infection sources of COVID-19 ?

At present, the main recognized infection source is the COVID-19 infectors. The asymptomatic infectors can also be an infection source.



4

### What are the transmission routes of COVID-19 ?

Everyone is assumed to be susceptible to COVID-19. It is transmitted via droplets and fomites during close unprotected contact between an infector and an infectee. Aerosol transmission is available under the condition of long time exposure to high concentrations of aerosols in a relatively closed environment.



## What are the typical symptoms of COVID-19 ?

Typical signs and symptoms of COVID-19 include: fever, fatigue and dry cough. A small number of patients are with symptoms of nasal congestion, running nose, sore throat and diarrhea. Patients in a severe or critical condition may have low and middle level of fever, even no apparent fever.



## How is COVID-19 different from cold and flu in symptoms ?

Symptoms	Cold	Flu	COVID-19
Fever	Rare	Common; Usually higher than normal body temperature, especially the children. Usually lasting for 3 to 4 days.	Common
Headache	Rare	Common	Common
Body ache	Slight	Frequent; Usually worse.	Common
Exhaustion/ weakness	Sometimes	Frequent; Lasting for 2 to 3 weeks.	Common
Extreme exhaustion	Never	Frequent; Usually at the beginning of fever.	Common; Some patients bear the symptom of slight fatigue.
Nasal congestion	Common	Sometimes	Rare
Sneezing	Frequent	Sometimes	Rare
Sore throat	Common	Sometimes	Rare
Chest discomfort/ Cough	Slight/ Dry cough	Slight to moderate; Might become worse.	Chest discomfort is common; Dry cough is common.
Pneumonia	Seldom	Rare	Common; Some patients have no symptom of pneumonia

# Chapter 2

## **Advice to the staff**





## What to do before working ?

Before working, make sure you don't have a fever, cough and other symptoms. The following staff workers should be prohibited from working: those who have recent residential or travelling history in key areas of the epidemic, those who have contacted with people coming from key areas of the epidemic or with the COVID-19 infectors, and those who have fever or feel sick.



## What to do when going out by public transport ?

Be sure to wear a mask all the journey. In a station or an airport, cooperate with the staff to fulfill the task of temperature-measuring and movement-track inspection. Keep a distance of at least 1 metre away from others. If you have a fever or are not feeling good



during the trip, report to the officials immediately, cooperate to take your temperature and comply with relevant regulations. Avoid moving in the vehicles. Try to avoid eating in a short trip to save you from removing the mask. If you have to eat, make sure both the food and your hands are clean.



### What to do when commuting by public transport ?

Use public transportation as little as possible. It is suggested to walk, take a ride or drive to commute. If you have to commute by public transportation, remember to wear the medical mask, avoid touching objects in the vehicle with hands, avoid touching

mouth, eyes, and nose with hands, keep your distance from others (at least 1 metre if possible), and open the windows of the vehicle during the trip if possible.



4

What to do when taking a taxi or  
a net car ?

Make sure to wear a medical mask. Sit at the back seat, and keep your distance from the driver. Open car windows on the trip. If the air conditioner is used, remind the driver not to use the internal circulation mode. Try to avoid sharing a car with others in case that the risk of infection is increased by concentration of people in a car.





## Is daily self-health monitoring necessary ?

Yes. If you develop suspected symptoms of the COVID-19 (including fever, cough, sore throat, oppression in chest, dyspnea, fatigue, nausea and vomiting, diarrhea, conjunctivitis, muscle aches, etc.), you should go the nearest hospital or clinic for treatment immediately. DO NOT go to work when you are sick.



## What to do before entering the workplace ?

The staff entering the workplace should cooperate to check the temperature. All the people entering the workplace must wear medical masks. The staff worker whose temperature exceeds  $37.3^{\circ}\text{C}$  should not enter the workplace and must go for medical treatment in time.



## 7 What to do when taking an elevator ?

Office users on lower floors are recommended to take the stairs. Office users on higher floors who are taking the elevator should try to avoid direct contact with the buttons, and try to keep a proper distance from each other. Fast in and fast out. A tissue box can be put on the entrance to the elevator, so the staff can touch the buttons via the tissues. The tissues should be thrown into the dustbin after using.

## 8 Are masks necessary in office ?

Ventilation should be maintained in the office. You can take off your mask when you are alone in the office. When there are others in the office, medical masks should be worn. Office staff should keep a proper distance from each other (1 meter or more is recommended).



## 9 Any other hygiene practices in office ?

Always keep your hands clean. Before eating and after using the toilet, wash your hands under running water with hand sanitizer or soap. Do not touch your mouth, nose and eyes with your hands when you are unsure whether your hands are clean. Cover your nose and mouth with a tissue or your elbow when sneezing or coughing. Keep the workplace clean and hygienic, open windows frequently for ventilation, and have a regular disinfection if necessary.



## 10 Are masks necessary to workers in a factory ?

Workers should wear masks in a factory. When dust exists in the workshop, the staff should wear appropriate dust-proof masks (filtration efficiency

depending on the nature of dust). When chemical poison and dust coexist, the staff should wear the protective covers with corresponding filter boxes, with the filter cotton added to the outside the filter box. The mask should be replaced immediately when it is broken or its respiratory resistance increases significantly.

### **11** How to keep a safe distance ?

A distance of 1 metre or more should be kept from each other. Avoid visiting others and talking with each other during working hours. Labor-intensive enterprises should properly arrange the production shift system to reduce the number of the staff within each shift.

### **12** What to do when having a working meal ?

It is recommended to bring your dinner with the dinnerware from home. If you have to have meals in the

canteen, you are suggested to take turns to avoid the peak hour. Wash your hands and wear a mask properly before eating. Keep a safe distance from others and avoid talking in the queue. Don't take off your mask before eating. When dining in the canteen, keep a distance from others, avoid sitting face to face and talk as less as possible.



**13** How to protect yourself when attending a meeting ?

Minimize meetings as best as possible. If a meeting is necessary, participants should wear masks, wash hands before entering the meeting room, and keep a distance of 1 metre or more from each other. Use your

own cups. Visitors to the company should have bottled water or use disposable paper cups. If suspected cases, confirmed cases or asymptomatic infectors are found, the meeting should be suspended immediately. Isolated medical observation for contacts and screening for cases should be done according to the regulations of the COVID-19 prevention and control.



### **What to do when going on a business trip ?**

Go-out official duties and unnecessary business trips should be minimized. If they are unavoidable, adequate personal protection should be taken to yourself (please refer to question 2 and 3 of this chapter).



### **How to exercise in the workplace ?**

It is not recommended to exercise in groups. You can exercise properly and moderately to improve the immunity. You can do simple exercises around your seat.

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### What to do when fetching an express package ?

Try to choose “non-contact delivery” service. If it is necessary to contact the deliveryman, you should wear a mask and wash your hands with soap under running water or use hand sanitizer after handling the package. Avoid fetching the express package in the crowd, and you can go for it when there are fewer people.



17

### What to do when fetching the food delivered ?

Try to choose “non-contact delivery” service. The food delivered can be placed in the designated location to avoid your face-to-face contact with the deliveryman. If the contact is inevitable, you should wear a mask



and minimize talking with each other. After you get your food delivered, open and discard the takeout package and wash your hands in time.

## 18 How to make psychological adjustment ?

Take the initiative to learn the knowledge related to the epidemic and protection issued by authoritative institutions to improve your protection skills. Do not believe and spread the rumor.

Control the time and frequency when you follow the epidemic situation everyday (for example, try to limit the time you spent in following the epidemic situation to 1 hour per day). Keep a positive attitude and schedule your hours.



# Chapter 3

## **Advice to the employer**





## What to do before working ?

The employer should make a decision whether to work according to local government regulations. If working is available, preparations should be made according to relevant regulations. Emergency plans should be made. Information relevant to prevention and control should be released to the staff in time. Staff from key areas of the COVID-19 epidemic are prohibited from working without medical observation in form of home quarantine or group quarantine. An organization system for emergency prevention and control against the COVID-19 should be established and someone must be put in charge of and responsible for it. All the staff should be subject to health screening and registered on health status. If there are workers who have been to Hubei province in recent two weeks, or whose community has been reported to have confirmed or suspected cases, the employer should make a registration and follow up their health status. If they develop fever, respiratory or digestive symptom, they should be guided to go for medical treatment in time.

## 2 What to prepare before working ?

Masks, thermometers, sterilizers and other material dealing with the COVID-19 epidemic should be prepared. There should be isolation rooms in the dormitory for workers. Hand-washing facilities and disinfection supplies should be provided in the workplace and living place. The employer with large numbers of personnel is recommended to be equipped with infrared thermometers.



## 3 How to maintain the mechanism of staff-health declaration and morning-check ?

The mechanism of staff-health declaration and morning-check should be established. Someone

must be put in charge of and responsible for taking the temperature of every worker. Those who have developed fever and cough should be guided to go to fever clinic for medical treatment immediately.

#### **4** How to carry out health education ?

Knowledge about prevention and control should be delivered in various forms, including Wechat, radio, bulletin board and posters. Advocate that everyone should be responsible for their own health, strengthen their health awareness and promote healthy lifestyles.

#### **5** Can group activities be organized ?

It is not suggested to organize group activities. If necessary, prevention and control measures should be carried out and the number of people should be strictly limited.



## What to do when there is a conference ?

Meetings should be held in forms of video, telephone or other means through the network. If a face-to-face meeting is inevitable, pay attention:

(1) Get to know the health status of all the participants before the meeting. Take their temperatures at the entrance to the meeting room. Provide masks, hand disinfectant, etc. to participants.

(2) The distance among the seats in the meeting room should be kept of 1 metre or more. The central air-conditioning system should be turned off. The separate air conditioner can be used.

(3) The meeting room should be cleaned and disinfected before and after meeting. Strengthen the indoor ventilation and maintain the air circulation.

(4) Shorten the duration of the meeting and extend the interval between two meetings. The meeting room should be ventilated and disinfected during the interval.

## 7 How to manage group working meals ?

Extend the time of meal-serving in the canteen. Have the staff take turns to have meals in the canteen to avoid the peak hours. It is recommended to pack the meal with lunch boxes and distribute them to the staff to avoid dining together. Clean and disinfect the repeatedly used tableware. Disposable tableware should be used if there is no condition for disinfection.

## 8 How to offer health service ?

The company infirmary should allocate necessary medicine and protective materials, cooperate with CDC, and conduct standardized isolated medical observation and tracing management. Those without company infirmary should establish contact with the nearest medical institution to ensure timely treatment or medical services for the staff.

Take care of the staff's mental health and relieve their psychological pressure in time.





### How to deal with visitors to the company ?

Formulate epidemic prevention and control requirements for visitors. Conduct personnel information registration, hands cleaning, temperature measurement and mask distribution. The visitors should be accompanied by the receptionist to the designated place for business or rest. Visitors are not allowed to dine in your enterprise in principle. If it is inevitable, the meal should be packed for the visitors to have in the reception room individually.



### What to do when there are suspected or confirmed cases ?

(1) The staff developing fever, cough, oppression in chest, diarrhea, vomiting, muscle aches, etc. should be suspended from working immediately and arranged to receive medical treatment in time.

(2) The staff worker who has been diagnosed as a suspected case, confirmed case or an asymptomatic

infector, the enterprise should cooperate with CDC to carry out epidemiological investigation.

(3) Conduct isolated medical observation for close contacts identified among the staff.

(4) Conduct terminal disinfection in the workplace and living place of the suspected case, confirmed case and asymptomatic infector.

(5) Take partial or total shutdown based on the assessment of the epidemic's risk, its impact and the local government's decision.

(6) Carry out health education, and further strengthen the health monitoring and management of the staff.



## How to prevent and treat occupational diseases ?

Establish and implement various occupational health management systems, provide workplaces that meet occupational health requirements, and protect the occupational health rights and interests of the



staff according to *Law on Prevention and Control of Occupational Disease*.



### How to deal with occupational-disease-prevention facilities ?

Since winter and spring have always been the period of high incidence of occupational poisoning, it is particularly important to strengthen the prevention and control of occupational hazards. The ventilation, detoxication, dust removal facilities in the workplace of some non-continuous production enterprises may decline in the reliability of dust and virus protection. Industrial enterprises should pay attention to the maintenance and comprehensive inspection of facilities for occupational-disease-prevention to prevent accidental poisoning incidents.



### How to carry out occupational health check ?

Minimize crowd gathering to effectively prevent the spread of the epidemic. Temporarily suspend the on-

duty and off-duty occupational health examination and rearrange to implement it when the epidemic situation is relieved. The occupational health examination for the new recruits should be carried out after being reported to the local disease control agency for evaluation. During the health examination, the items demanding removal of masks should be avoided, the number of the people being examined should be limited, and the examination institutions should also implement various epidemic prevention and control measures.

## **14** How to realize sanitary control ?

Carry out environmental remediation and garbage classification. Hazardous garbage should be sealed for storage, regularly disposed by someone responsible for it. And the hazardous garbage should be disposed on the same day it is produced. Dustbins for discarded masks should be set up. Toilets should be well-ventilated and there must be someone responsible for the cleaning,

sanitation and disinfection. Prevent and control the vectors, eliminating the pest breeding places in the outside.



15

### How to protect temperature-measuring takers ?

Temperature-measuring takers should be equipped with caps, masks, overalls and gloves.



16

## How to set a temperature-measuring point ?

Temperature-measuring points should be set in the entrance and exit of the enterprise. If there are multiple entrances and exits, it is recommended to keep the main one, and close all the others.

The temperature-measuring point should be divided into several areas.

**Waiting area:** The staff waiting to be taken temperature should line up in an order with a distance of 1 meter or more from each other.

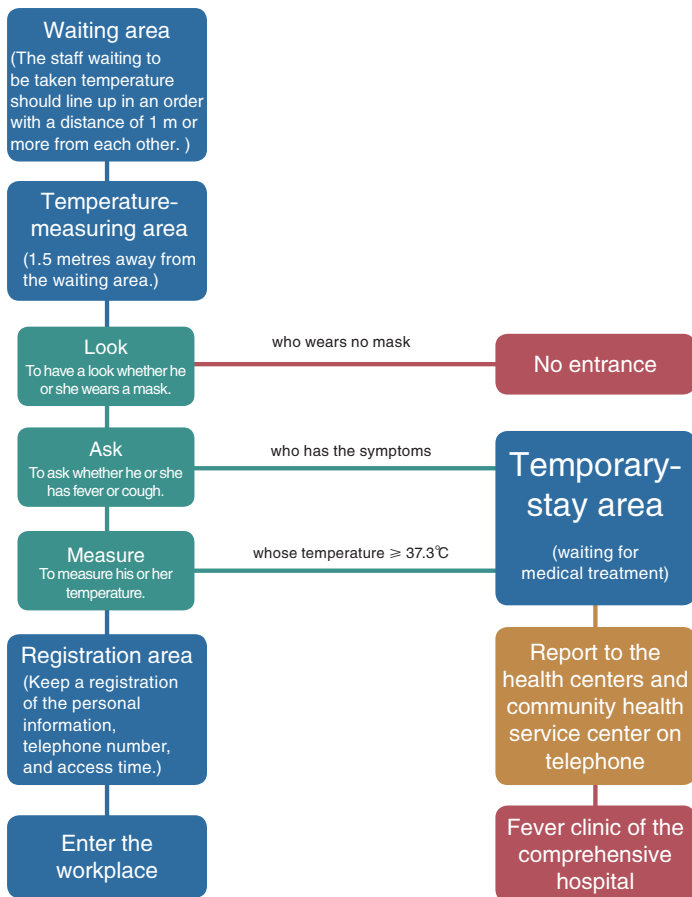
**Temperature-measuring area:** It should be 1.5 metres away from the waiting area.

**Registration area:** Keep a registration of the personnel and vehicles in and out.

**Temporary-stay area:** People with a temperature above 37.2°C should temporarily stay here.



## How to run a temperature-measuring point ?



## 18 What to prepare for disinfection ?

To disinfect the indoor area, the following things should be prepared: chlorine-containing disinfectant, sterilized cotton balls or tablets with ethanol concentrations of 75%, ethanol-containing or hydrogen-peroxide-containing wipes, masks, gloves, goggles, hats, sprayers, basins, bucket, plastic measuring cups, cloth, mop, etc.

## 19 Is disinfection outside the workplace necessary ?

Outdoor air does not need to be sterilized. In case of a definite pollutant, it is necessary to remove the pollutant first and then disinfect the place where the pollutant is located. For the places and objects outdoor which are rarely touched by hands, such as the ground and the plants, they just need cleaning but no disinfecting if they are not contaminated by the vomit, secretion or excreta.

## **20** Are disinfection passages necessary ?

Do not spray disinfectant directly on human body via a disinfection passage. Large amounts of disinfectant sprayed on human body may be inhaled through the breath or absorbed through the skin and do harm to human body by irritating the respiratory tract, mucosa and the skin.

## **21** How to ventilate the workplace ?

(1) Ventilation should be enhanced in the workplace to maintain the indoor air circulation. Open doors and windows as much as possible to ventilate the office if the indoor temperature is acceptable.

(2) It is recommended that the office area be ventilated no less than 3 times a day and for no less than 20 minutes each time. Continuous ventilation is recommended if a suitable indoor temperature can be maintained.

(3) The ventilation system in the building should be started one hour before the office time and kept running for two hours after the office time.

(4) Affiliated places such as the toilet, sewage room, underground garage, distribution room and pump room should enhance ventilation.

All mechanical ventilation systems (if there are) should be put into operation.



**22**

### Can the central air-conditioning system be run ?

(1) When there are suspected or confirmed cases, the central air-conditioning system should be stopped from working. It can be put into operation again after the workplace, including the air-conditioning system, ventilation system and other electrical equipment gets complete disinfection.



(2) If the central air-conditioning and ventilation system is an all-air system, the return air valve should be closed and the operation should be in the all-fresh air mode.

(3) If the air conditioning and ventilation system is the fresh air system with fan coil or multi-couple unit, the normal operation of the fresh air system should be ensured and make sure the fresh air is directly taken from the outside. It is prohibited to take the air from the corridors, the machine room, and the ceiling.

(4) Clean, disinfect or replace equipment parts of the air conditioning and ventilation system on a weekly basis.

(5) If the air conditioning and ventilation system is the fan coil system, multi-couple unit, or ordinary separate air conditioning without the fresh air system, doors and windows should be opened to strengthen air circulation.



## How to clean and disinfect air-conditioning and ventilation systems ?

(1) The air conditioning and ventilation system should be cleaned and disinfected according to *Specification for Cleaning and Disinfection of Centralized Air-conditioning and Ventilation Systems in Public Places*. Disinfectant containing chlorine / bromine (250 mg/L~500 mg/L) or disinfectant containing chlorine dioxide (100 mg/L~200 mg/L) can be used in forms of spraying, soaking and wiping, 10 to 30 minutes a time. Quaternary ammonium salt disinfectant should be given the priority when disinfecting the metal parts.

(2) When there are suspected or confirmed cases, the central air-conditioning system should be cleaned and disinfected under the guidance of the centers for disease control and prevention, and it can be put into use again after passing the hygiene evaluation.

## Chapter 4

# Health protection skills



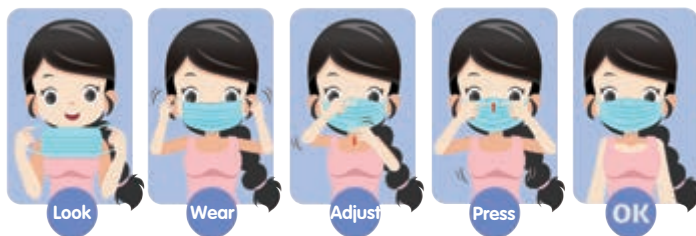
## 1 How to wear a mask ?



Sample video

Choose the mask with right size and children should wear the mask special for them. Follow the tips to wear the mask properly: make the dark-colour side outward and the metal strip upward; unfold the folded sides completely and give a full range of coverage of your mouth, nose and chin; press the metal strip along the sides of the nose to make the mask fully fit the face. Avoid touching the mask after wearing. If you have to touch it, you must clean hands thoroughly before and after touching.

### Steps to put on a mask



## 2 How to wash hands ?

Follow the steps to wash hands properly: wet your hands with running water; put enough soap on your hands; rub your hands thoroughly; dry your hands with the tissue; use a piece of tissue to cover the tap and turn it off. The key to washing hands is to rub hands thoroughly.



3

### How to disinfect surfaces of objects ?



Sample video

Surfaces of doors and windows, tables and chairs, door handles, taps, sinks, elevators and the ground should be disinfected with disinfectant (with an active chlorine content of 500 mg/L ) more than 30 minutes everyday.

4

### How to disinfect electronic equipment ?

Sterilized cotton balls or tablets (with ethanol concentrations of 75% ) , and ethanol-containing wipes can be used to clean the surfaces. For the surfaces with high temperature, disinfectant with quaternary ammonium salt should be used.



## How to disinfect shuttle buses and business vehicles ?

Clean and ventilate the inner area of the vehicle every day. Conduct preventive disinfection on the surfaces of the items frequently touched by people (such as door handles, steering wheels, windows, seats, armrests, pull rings, etc. ). Disinfecting methods can refer to those of disinfecting surfaces of objects.

If there are patients of the COVID-19, the vehicle should be stopped immediately and receive terminal disinfection in time.



## How to disinfect elevators ?



Sample video

(1) Before disinfecting, a “CLEANING IN PROGRESS” sign should be placed outside the elevator in order to prevent others from entering it.

(2) The walls of the elevator can be sprayed with the chlorine-containing disinfectant from the bottom

to the top. Medical goggles should be worn during the process of disinfecting (the swimming goggles can be alternative).

(3) Buttons of the elevator can be covered with plastic wrap and sprayed with the chlorine-containing disinfectant. The plastic wrap should be changed immediately if it is torn, and sprayed with the chlorine-containing disinfectant again.

(4) If the buttons of the elevator cannot be covered with plastic wrap, rub them with disinfected wipes containing 75% ethanol, hydrogen peroxide or quaternary ammonium salt.

(5) After disinfecting the walls and buttons of the elevator, the elevator ground should be sprayed with the chlorine-containing disinfectant. Use clean water to remove the residual disinfectant from the ground after 30 minutes.





## How to disinfect a bathroom ?



Sample video

Enhance ventilation in the bathroom. Disinfect the sink, the tap, the toilet and the squatting pot with the disinfectant containing an active chlorine content of 500 mg/L~1000 mg/L by spraying or wiping. Clean them with water after 30 minutes. Mop the floor with the disinfectant containing an active chlorine content of 500 mg/L~1000 mg/L and clean the floor with water after 30 minutes.



## How to disinfect dinnerware ?



Sample video

Remove the food residue from the dinnerware and conduct disinfection after washing. Heat-resistant dinnerware can be disinfected in boiling water or

circulating steam for 15 to 30 minutes, or be disinfected with the sterilizing cabinet which meet the national standards. The dinnerware can be also disinfected by being soaked into the disinfectant containing an active chlorine content of 250 mg/L~500 mg/L for 30 minutes, washed up with clean water and stored after drying. Heat-sensitive dinnerware should be disinfected with chemical methods.

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认识新冠肺炎  
员工个人防护  
用人单位防控  
健康防护技能