

Islamic Republic of Iran

Ministry of Health and Medical Education

Deputy for Health

Center of Environmental and Occupational Health

**Guidelines for Environmental Control to Combat COVID-19 (Coronavirus) in Points of
Entry (Passenger and Cargo)**

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Domain of Application

Points of Entry including air, maritime, and land cargo and passenger terminals

Introduction

According to the latest information, coronavirus transmission is human-to-human through coughing, sneezing, and mouth and nasal excretions. The virus can be transmitted through sneeze or cough over a distance of up to two meters. Another mode of transmission is through the hands touching a surface or object infected with the virus such as equipment, door handles, tables, chairs, faucets, stair railings, electric switches and plugs, and all instruments used jointly and publicly (bills, documents, etc.). Therefore, it is imperative that after touching any suspected object or individual, one washes the hands and face with water and soap.



Control Measures for Environmental Health

Goal: Reducing the concentration of the infection agent in the air, surfaces, and objects.

The purpose underlying the production of these guidelines is to recommend health measures to prevent and control coronavirus at border terminals. The guidelines further provide health

information to reduce the possibility of disease transmission among all personnel, ancillary staff, and individuals working and commuting to such places.

Measures: Proper and agreeable ventilation, segregation of spaces or observance of a minimum one-meter distance from patients or suspected cases, disinfection of surfaces and objects.

1. Personal Hygiene (Staff)

It is recommended that the following health tips be observed and communicated to others:

- Avoid shaking hands and kissing the face of each other, passengers, or other persons especially those who have just arrived.
- Wash your hands with soap (according to the protocol) regularly or use alcohol-based disinfectants prior to touching your mouth, nose, and eyes and after touching surfaces and objects and also after using the bathroom and before touching food.
- Refrain as much as possible from eating food in the public spaces of terminals including the ticket purchase hall, transit, etc. and also prepared food; consume completely cooked food.
- Upon feeling any signs of a cold, rest and use a mask properly and refer to a health center in case of the exacerbation of the signs.
- Sick persons should be placed in a segregated space to the extent possible until the arrival of an ambulance or transfer to a health center.
- Ancillary staff should use protective gear, masks, boots, and gloves during sanitation.
- Clip your nails regularly.
- It is best to use a face recognition system to register attendance.
- Use gloves or tissues to touch the buttons of elevators, laptops, tablets, computer keyboards, telephones, cellular phones, door handles/knobs, etc.
- Use a tissue when sneezing or coughing (if tissues are not available, use the inner part of your elbow).
- Do not use one cloth or handkerchief to wipe chairs, tables, and other equipment (each staff should preferably use their own personal cloth or handkerchief or disposable hygiene pad).
- The staff using uniforms or other clothing during duty hours especially those engaged in storage or transport of goods should use their own personal gear.
- The staff who are responsible to provide special assistance to passengers who are elderly, disabled, or in need must not forget to wear masks and gloves.
- The personnel engaged in moving passengers or cargo should avoid receiving any money or goods due to the probability of its being infected by coronavirus.

- All staff using the equipment for moving and transferring passengers and/or cargo must refrain from directly touching the equipment, cargo, and passengers with their hands.
- The entire personnel of each division should remain active only in their own area and refrain from unnecessary movements during working hours.

2. Personal Hygiene (Passengers, Persons Going to Terminals, and Drivers)

- Avoid shaking hands and kissing the face of each other, the staff, or other persons going to terminals, especially those who have just arrived.
- Wash your hands with soap (according to the protocol) regularly or use alcohol-based disinfectants prior to touching your mouth, nose, and eyes and after touching surfaces and objects and also after using the bathroom and before touching food.
- Refrain as much as possible from eating food in the public spaces of terminals including the ticket purchase hall, transit, etc. and also prepared food and consume completely cooked food.
- Upon feeling any signs of a cold, rest and use a mask properly and refer to a health center in case of the exacerbation of the signs.
- Sick persons should be placed in a segregated space to the extent possible until the arrival of an ambulance or transfer to a health center.
- Clip your nails regularly.
- Use gloves or tissues to touch the buttons of elevators, laptops, tablets, computer keyboards, telephones, cellular phones, door handles/knobs, etc.
- Use a tissue when sneezing or coughing (if tissues are not available, use the inner part of your elbow).
- Do not use one cloth or handkerchief to wipe chairs, tables, and other equipment (each staff should preferably use their own personal cloth or handkerchief or disposable hygiene pad).
- Passengers should have their luggage moved by the ancillary staff as much as possible.
- Passengers should avoid touching surfaces and objects in the terminal unless they are really required to do so.
- Arriving passengers should inform the point of entry health post if they show signs of infectious diseases or any such history.
- The drivers of passenger and cargo vehicles must refrain from going inside terminals unless they are required to do so.
- Drivers must avoid exchanging money as much as possible and use e-payment systems instead.
- Persons going to terminals should keep their distance from others and use masks and gloves when inside terminals.

- All those going to terminals to pick up arriving persons must avoid shaking hands and kissing them and also observe the minimum one-meter distance with them.
- Everyone should refrain from going inside terminals unless they are required to do so.
- Avoid smoking tobacco particularly in open spaces due to its impact on weakening your body's immune system and exposing individuals to coronavirus infection.

How To Wash Your Hands

You must wash your hands for 20 seconds through the following steps:

- Wet your hands.
- Use liquid soap.
- Rub your palms well.
- Wash your fingers.
- Wash your wrists.
- Wash between your fingers.
- Rinse your hands.
- Dry your hands with tissues (or disposable towels).
- Turn off the tap with the same tissue/towel.
- Throw the tissue/towel in a lidded wastebasket.

How to handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS ONLY WHEN VISIBLY SOILED!

 Duration of the entire procedure: 20-30 sec.



3. Food Hygiene (In case There Are Buffets or Any Place Where Food Is Served)

- All places where food is prepared, distributed, and cooked and public places must observe relevant protocols which have been submitted.
- Salt, pepper, other spices, and drinking water should be preferably served in disposable packs.
- The food of the terminals' canteens should have a sanitary covering before being served.
- Disposable utensils are necessary in the restaurants and/or buffets of terminals.
- Serving uncovered food in all terminals is prohibited.
- The provision of ready-made and hazardous food such as different sorts of sandwiches, boiled potatoes and eggs, etc. inside and around the terminal must be prevented.

4. Sanitation of Equipment and Tools

- In kitchens and places where food is served, all the dishes, glasses, forks, knives, plates, and pitchers have to be replaced after a table is served; all the above items must be washed (through the three stages of preliminary wash with water above 75 degrees centigrade, disinfection, and rinsing) and alternative items are to be used for the next customers at that table.
- Kitchens and places where food is served (if existent) are obliged to wash and disinfect all food cooking and preparation utensils.
- If disposable tablecloths are used for the dining table, they have to be replaced after each round of use.
- Washing and disinfecting bed sheets, blankets, curtains, etc. (if existent) is necessary after each round of use.
- Using personal prayer rugs and *turbah* (prayer tablet) is essential and all common prayer rugs, *turbah*, chadors, gowns, and towels must be removed in all prayer halls.
- In case there are gyms, all equipment is to be disinfected at least once at the end of the working hours.
- In case there are sporting equipment and children's toys, they should all be disinfected regularly.
- In case there are shower and changing rooms, using personal sanitary items is essential.
- All water dispensers and coolers must be removed or not used until further notice.
- The ventilation must be appropriate such that it should be open or semi-open to create air flow. The ventilation must not be in the form of internal circulation.
- In office rooms, halls, and indoor spaces, it is best to use lidded wastebaskets with foot pedals and garbage bags.
- Sanitation equipment has to be disinfected after each round of use.

- All equipment used for moving and transporting cargo and passengers which come in touch with the hands of passengers or staff or the surfaces of cargo must be cleaned and disinfected after each round of service or at least at the end of each working shift.
- All passengers' luggage, especially those of passengers arriving from a country infected by coronavirus, must be disinfected by the ancillary team of the terminal under the supervision of the health team stationed in the terminal.
- All consignments in the form of large or small packs or batches must be disinfected with proper equipment including both low- and high-capacity pumps depending on the volume of the consignment after being unloaded from vehicles, especially those which have been transported from countries infected by coronavirus and then released for storage.
- All the sections of cargo transportation vehicles (such as cargo airplanes, ships, trains, and trucks) must be disinfected prior to receiving and loading the cargo.
- All the surfaces and seats of passenger vehicles (e.g. airplanes, ships, and coaches) must be disinfected after passengers get on and get off.

Sanitation of Buildings, Structures, and Devices

- Using ventilators and leaving the doors and windows of halls open at all times, particularly during the day in order to have pleasant air is necessary.
- Proper and continuous ventilation of residential areas, ticket purchase halls, transits, airport check-in counters, all places which could be used by passengers, staff, and those arriving in terminals, and rest rooms is essential.
- Rest rooms and shower rooms in terminals, airplanes, trains, ships, and also certain intercity coaches must be separately disinfected.
- Prior to flushing, the toilet seat must be closed to prevent the dispersion of microbes in the air.
- The surfaces which are touched by the public including walls, floors, door handles and knobs, chairs, tables, faucets, stair railings, benches, beds, wardrobes, cabinets, telephones, wireless radio receivers, POS machines, ATMs, electric switches and plugs, and gas, gasoil, and gasoline pumps of public transport vehicles, etc. should be cleaned with a dry and clean cloth and subsequently disinfected.
- An adequate number of containers with hand disinfectants in them should be installed at entry and exit points.
- Inside the terminals and the pertinent equipment must be continuously disinfected at least once a day.
- Pipeline systems of liquid soap and tissues must be installed in rest rooms.
- Foot pedal and sensor faucets for sinks are recommended in rest rooms.
- Waste disposal must be done through sanitary means in lidded wastebaskets with foot pedals and all the staff who are responsible for waste collection and disposal must

observe all sanitary considerations (waste collection in strong seamless plastic bags) at the end of each working shift.

- In places of mass gathering such as prayer halls, disinfection should be carried out in the intervals between dawn, midday, and dusk prayers.
- The air inside the elevator must have pleasant ventilation and be regularly disinfected.
- Using ventilators in indoor spaces and staff rooms or leaving the hall doors and windows open is essential.
- Fueling vehicles in terminal gas stations must be done only by station staff.
- Smoking areas (if existent) must be deactivated.

The following surfaces in specified areas must be primarily cleaned and subsequently disinfected:

- Seat section of a chair.
- Chair arms.
- Seat back (plastic or metal).
- Safety belt buckles.
- Lights and controls, attendant call buttons, and overhead baggage compartments.
- Walls and windows.
- Video monitors.
- In case a sick passenger uses the rest room, the doors, handles, and knobs, toilet seats, napkin changing tables, sinks, walls, and counters should be disinfected.
- Make sure that the surfaces have been adequately disinfected.
- All contaminations must be removed from the cabin floor.
- All surfaces must be washed with water and dried and all used tissues must be disposed in waste bags.
- All gloves must be disposed in waste bags.
- Once the work is over, hands must be washed with water and soap or cleaned with alcohol-based disinfectant.

Important Points:

- Awareness billboards on the means of preventing respiratory diseases should be erected in places with public visibility.
- Guidelines for washing hands must be installed sufficiently in places where food is served and in rest rooms.
- Halls must be evacuated during disinfection and sanitation and doors and windows left open with fans on during ventilation.

- Disinfectant solutions must be prepared and used every day (the efficiency of the solution would be reduced after 24 hours).
- The necessary facilities to wash hands regularly and use disposable masks during the working shift (at least two masks per shift) and washing and disinfecting the uniform of the personnel responsible for sanitation on a daily basis must be put in place.
- Use special mops to disinfect spaces where there is the possibility of infection.
- The wastebasket, tissues, and sanitation and disinfection equipment of rest rooms must be separated.
- Throughout the sanitation period, take care that your clothes, gloves, and masks are not damaged and replace them if damaged.
- Start the sanitation from one point and end it in the opposite point (move the mop spirally).
- The mops used for cleaning floors, halls, etc. must have several extra mop heads.
- After usage, mops and cloths must be washed in hot water.
- During disinfection, necessary precautions must be taken to prevent electrocution.
- Disinfection equipment and machineries must be washed after the work is over and dried properly depending on the capacity of the equipment and machineries.
- The staff must take showers following disinfection, especially disinfection of a larger area, and leave the workplace with clothes other than their uniform.

Necessary Measures When Faced with Suspected Cases

In case of the manifestation of any signs similar to seasonal flu among resident individuals and staff such as body temperature above 38 degrees centigrade, cough, sore throat, respiratory disorder, shortness of breath, gastrointestinal signs such as diarrhea, disorder of body organs especially kidneys, and septic shock, the individual must be immediately relieved of duty and referred to comprehensive health services centers. The individual can resume duty only with an official approval of the aforementioned centers.

Surface Disinfectants:

1. Licensed Alcohol-Based Disinfectant Substances

Alcohol is effective for eliminating viruses. Seventy-percent Ethyl alcohol is an extensive microbe killer which is generally better than isopropyl alcohol. Alcohol is often used to disinfect small surfaces (such as the plastic lids of multiple-dosage medicinal vials, thermometers) and the external surfaces of equipment (e.g. stethoscopes and ventilators).

Due to the flammability of alcohol, its application is for the disinfection of small restricted surfaces and spaces with proper ventilation. Frequent and elongated usage of alcohol as a

disinfectant can bring about change in color, inflation, and the rigidity of and cracks in specific plastic and elastic materials.

2. Alcohol-Based Disinfectants Containing Quaternary Ammonium

To be used in accordance with the protocol and guidelines of the producing company.

3. Oxidant Disinfectants Such As Hydrogen Peroxide

To be used in accordance with the protocol and guidelines of the producing company.

4. Bleaches

Bleaches are strong and effective disinfectants with sodium hypochlorite as their active agent which can significantly eliminate bacteria, fungi, and viruses including the influenza virus. They can, however, be deactivated easily with organic substances.

Domestic disinfectants and bleaches (with a contact duration of 10 to 60 seconds) are largely available at a low price and are recommended for surface disinfection in health centers.

Despite this, bleaches stimulate the mucus membrane, skin, and respiratory tract and are decomposed in heat and light and react readily with other chemicals. Therefore, they need to be used with precaution.

Incorrect application of bleaches such as not observing the precise amount of dilution (stronger and weaker) could lower their impacts for disinfection and lead to harm among healthcare workers.

The following points are essential in producing and consuming diluted bleaches:

- Using masks, waterproof aprons, gloves, and goggles to protect the eyes against spillage is recommended.
- Bleaches should be mixed in spaces with proper ventilation and used.
- Bleaches should be mixed with cold water (warm water causes sodium hypochlorite to disintegrate and make it inefficient). In case of using bleaches containing five-percent sodium hypochlorite, it should be diluted to 0.05 percent.

Table 1 – Guidelines for Sodium Hypochlorite Concentration and Consumption

<p>Primary solution: Commonly available domestic chlorine bleaching solutions containing five-percent sodium hypochlorite (50,000 PPM).</p>
<p>Recommended solution: Five-percent sodium hypochlorite 1:100 solution, one part bleach to 99 parts of cold running water is recommended (1:100 solution for surface disinfection).</p> <p>To access the proper concentration of sodium hypochlorite, adjust the ratio of the bleach to water. For instance, to prepare bleaches containing 2.5 percent sodium hypochlorite, use bleaches twice as much (i.e. two parts of the bleach to 98 parts of the water).</p>
<p>Available chlorine after dilution: For bleaches containing five-percent sodium hypochlorite, an available 1:100 chlorine solution would be approximately 0.05 percent or 500 PPM.</p>
<p>Bleaching solutions including other concentrations of sodium hypochlorite would be prepared with different amounts to achieve the desirable dilution.</p>
<p>Different times for different functions:</p> <ul style="list-style-type: none"> • Non-porous surfaces: A minimum of 10 minutes is recommended. • Disinfection through soaking items: The contact time is recommended to be 30 minutes (for mops, cloths, wears, gloves, etc.). <p>Note: The surfaces must be cleaned from organic substances (e.g. feces, vomit, secretions, blood or other body fluids prior to disinfection or soaking).</p>

Table 2 – Guidelines for producing disinfectants

Item	Required concentration	Available disinfection	Ratio of disinfectant to cold water
1	Available 500 PPM or 0.05 percent chlorine	Five-percent Javelle water (contains 50,000 PPM available chlorine)	One unit disinfectant and 99 units cold water

Necessary Precautions for Using Bleaches

- Bleaches cause erosion of metals and damage painted surfaces.
- Contact with the eye must be avoided and if bleaches enter the eye, the eye must be immediately washed with water for 15 minutes and a doctor must be consulted.
- Using bleaches together with other domestic detergents must be avoided as the efficiency would be reduced and may lead to hazardous chemical reactions. For instance, toxic

gases are produced during mixing bleaches with acid detergents such as those applied for cleaning toilets. These gases can bring about death or injury. If necessary, use detergents at the beginning and wash with water completely before using bleaches for disinfection.

- Undiluted bleaches release toxic gases when exposed to sunlight; therefore, bleaches must be kept in dry places out of sunlight and out of children's reach.
- Sodium hypochlorite is decomposed in the duration of time. To make sure of its efficiency, purchase recently produced bleaches and avoid overstocking.
- If using diluted bleaches, the diluted solution should be prepared on a daily basis to be fresh and the date of the dilution is to be labeled on it. Unused solutions should be disposed after 24 hours. Organic substances deactivate bleaches; hence, the surfaces with organic substances on them are to be cleaned first and freed from such substances with bleaches prior to disinfection.
- The diluted bleach must be kept away from sunlight and, if possible, in dark-colored vessels and out of children's reach.
- For surface sanitation, it is imperative to have in place two kinds of equipment and all cloths, mops, and floor cleaning tools must be washed and disinfected after each round of sanitation (halfway through the shift and at the end of it) so that they could be readied for the next round of application.
- It is best if surfaces like railings, chairs, etc. be cleaned with wet cloths soaked in detergents to eliminate and reduce the contamination load of the pathogen on the surface.
- Disinfection of surfaces such as railings, staircases, and chairs is done by wet cloths soaked in alcohol-based disinfectants.
- It is imperative that the moisture caused by the surfaces (railings, handles, knobs, chairs, etc.) coming in touch with disinfectants be left to dry themselves and such surfaces are not to be dried with other cloths or tools (important).
- The time required for the durability of the effectiveness of disinfectants on surfaces is 10 minutes.
- It is necessary to start the sanitation from one point and end it on the opposite point.
- The cloths and tools used for general sanitation must be separate from those applied for rest room sanitation and not to be used jointly ever.
- The place of storing detergents, disinfectants, and protective gears and wears should be in a designated and proper place and the terminal manager is obliged to secure the relevant needs.

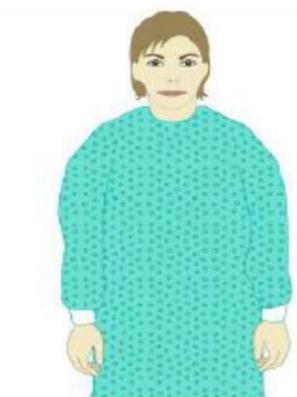
Wearing and Taking Off Personal Protection Gear



Identify and manage the hazards.
Prepare the necessary personal protection gear.

Specify where the personal protection gear should be put on and taken off.

Wear the personal protection gear.



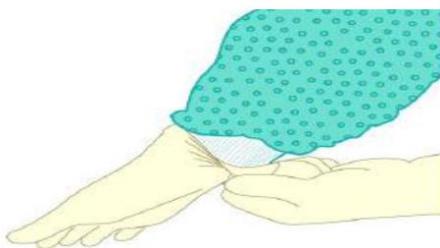
Use waterproof aprons.



Wear the mask according to the picture.



Disinfect your hands.



Wear the gloves (use elastic gloves for environmental sanitation and waste management).

Stages of Taking Off Personal Protection Gear

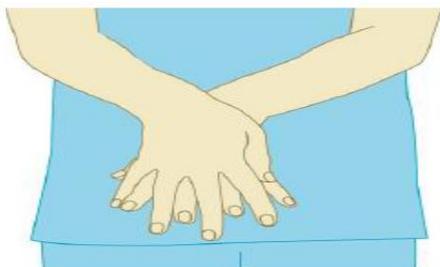


Taking off elastic aprons and disposing them properly: If the apron is to be reused, it has to be put in a vessel with disinfectants.

If you are wearing shoe covers, take them off while you have gloves on.

Turn the gown and gloves inside out and dispose them properly.

If you are wearing elastic boots, take them off without touching them and throw them in a vessel containing disinfectants.



Disinfect your hands.



Take the mask off from behind.



Disinfect your hands.

Important Points for Preventing Coronavirus:

- ✓ Wash your hands above the wrist before eating and drinking for 20 seconds with water and liquid soap and if safe drinking water is not available, use alcohol-based disinfectants.
- ✓ Avoid contact with sick individuals and also shaking hands and kissing the face of others (keep 1-2 meters of distance with sick individuals).
- ✓ Sick individuals and suspected cases must use masks.
- ✓ Avoid touching the eye, nose, or mouth.
- ✓ Cover your mouth and nose when sneezing and coughing with tissues and dispose those tissues in a wastebasket.
- ✓ If you manifest signs of cold, rest at home.
- ✓ Coronavirus is more active in cold and dry environments. Keep the surrounding moist.
- ✓ Disinfect the surfaces you are frequently in touch with.
- ✓ Boost your immune system through eating fresh fruits and vegetables.
- ✓ Communicate these messages to those around you.

Translated from Farsi by HAMID MARASHI