

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

## Safety Guidelines for In-Person Human Research

The SARS-CoV-2, which causes COVID-19, is most commonly spread from an infected person through respiratory droplets; close contact; and touching an infected area, then touching mouth, nose or eyes before washing hands. These modes of transmission are the main drivers of community spread. However, although to a lesser extent, COVID-19 can also spread through aerosols. Aerosols can additionally be generated when individuals are subject to certain procedures that generate aerosols, which are sometimes performed in certain types of research. This poses a further risk of transmission of COVID-19.

Physical human interactions where any side is infected with the virus (known or unknown) pose a risk of transmission to all sides that share a space, whether it is the researcher, the research participant, staff participant or support personnel. As such, the proposed measures in this guidance document are intended to reduce the risk of disease transmission to all parties involved.

The following health and safety information and procedures have been developed to minimize the spread of COVID-19 for those who are conducting research that involves human participants. Administrators, workers and students must be familiar and follow the guidance from [Ontario Public Health](#), [Niagara Region Health](#) and the Brock University office of [Health, Safety & Wellness](#).

Research with human participants should be initiated only when all safety measures that protect workers and students as well as the research participants have been implemented. With the changing epidemiological picture of COVID-19, only human research that can be scaled back or shut down safely on short notice should be initiated, until further notice.

## Assessing the risk

Risks associated with COVID-19 in the context of in-person research with participants can affect researchers, the research participant, and the community where the research takes place.

Research with human participants may pose an increased risk of exposure to the COVID-19 virus to the two main parties (researcher and research participant) depending on the type of interaction between them. This risk is characterized in the below table.

**Table 1. Characterization of risk for research with human participants based on type of interactions**

Research method	Examples	Type of Contact
Interaction/observation	Interviews, focus groups, surveys, computer-based experiments and data collection, non-invasive imaging (on campus)	None or minimal contact, physical distancing can be easily achieved.
Medium intervention procedures	Introducing dietary or exercise regime, drug, or natural health product testing, research on wearable devices, collection of some biological samples.	some physical contact, low-intensity contact, physical distancing can be attained most of the time.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

High intervention procedures	Physical treatment or manipulation (e.g. blood draws, biopsies, indwelling EMG, placing equipment on participants (electrodes, IMUs, amplifiers)	sustained physical contact, high intensity, physical distancing not possible.
Very high intervention procedures	Aerosol generating procedures (e.g. Pulmonary function test, Spirometry, ENO, PEFT)	aerosol generation is anticipated or likely.

This risks of conducting research on human participants will be significantly affected by the mitigation measures that are implemented at the research site, which are promoted by public health and various levels of government, such as distancing, the use of respiratory protection, practicing good hand hygiene and respiratory etiquette, following proper cleaning and disinfection protocols, etc., as well as how well the measures are adhered to. These mitigation measures are well covered in a variety of health and safety bulletins and guidelines that can be downloaded from the Health, Safety and Wellness Toolbox under [COVID-19 Information](#). They are also covered further down in this document.

In addition, there are other risks to consider which depend on the vulnerability of the research participant and population they belong to contracting COVID-19, as identified by [Public Health](#). Therefore, the Principal Investigators need to consider the following vulnerability factors before recruiting a research participant.

## Vulnerable populations may include

Anyone who is:

- an older adult, usually 60 or older
- at risk due to underlying medical conditions (e.g., heart disease, hypertension, diabetes, chronic respiratory diseases, cancer)
- at risk due to a compromised immune system from a medical condition or treatment (e.g., chemotherapy)

Anyone who has:

- difficulty reading, speaking, understanding, or communicating
- difficulty accessing medical care or health advice
- difficulty doing preventive activities, like frequent hand washing and covering coughs and sneezes
- ongoing specialized medical care or needs specific medical supplies
- ongoing supervision needs or support for maintaining independence
- difficulty accessing transportation
- economic barriers
- unstable employment or inflexible working conditions
- social or geographic isolation, like in remote and isolated communities
- insecure, inadequate, or nonexistent housing conditions

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

Other factors:

- Research participant uses public means of transportation to reach the research site
- Researchers visiting research participants in their homes
- Research site is located in a smaller or poorly accessible sites or is an Indigenous community

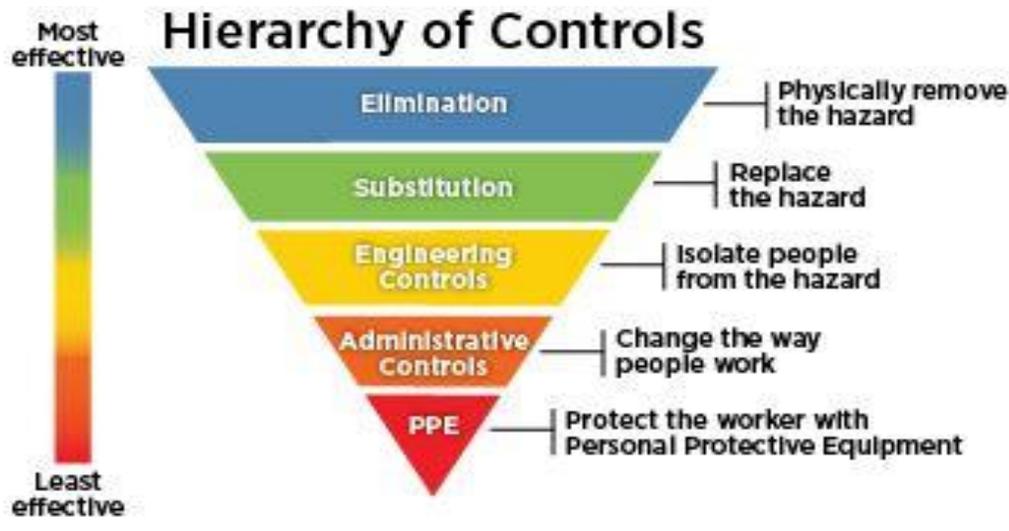
## Risk Mitigation Measures

### General. Hierarchy of Controls

Ample information is available on the [HSW Sharepoint site](#) regarding all general aspects of COVID-19, its risks, and mitigation measures. All researchers and workers are expected to be familiar with this information before planning to and engaging in work.

The document titled [Health, Safety, and Wellness Guidance for Shared Campus Research Spaces in COVID-19 Pandemic Conditions](#) is the guidance issued for researchers entering shared research spaces, therefore, any research with human participants in an on-campus setting should also follow this guidance.

COVID-19 is a newly identified hazard which requires an assessment and evaluation to mitigate the hazard in the workplace. As with any hazard mitigation strategy the focus should be on implementing control measures to eliminate or reduce the risk. The strategy for mitigating the COVID-19 hazard follows the same control framework. The hierarchy of controls as shown below must be considered.



## Elimination

### Continue Working Remotely

- Employees continuing to work remotely (off-site), as much as possible, is the most effective method to remove or eliminate the COVID-19 hazard from the workplace.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

- Research involving human participants that requires no in-person interaction (e.g., online or telephone interviews and surveys, research involving existing data sets that can be accessed from off-campus) can proceed, subject to continuing ethics clearance.
- Research activities that require in-person interaction are suspended unless authorized through the process outlined in [Brock Research Activities During Stages of Pandemic and Recovery](#). Upon authorization, researchers must adhere to physical distancing and hand hygiene practices while engaged in research.

## Substitution

Not applicable in the case of COVID-19

## Engineering controls

Adjust the workplace

- Physical distancing must be the primary consideration as supervisors prepare for the return of employees to campus once they are authorized to do so.
- Physical distancing (2 meters) is fundamental. Solutions may to achieve it differ depending on the number of individuals in a work area as well as the operational requirement of the work tasks.
- When physical contact or proximity are necessary during research activities, reduce the time spent in proximity (less than 2 m) to the minimum possible.
- In order to enable physical distancing once the university moves into subsequent phases of recovery, changes to the design or configuration of the workplace may be required. For employees whose duties make it difficult to engage in physical distancing while on campus, proactively consider re-design or modification of their workstations and workplace configuration in to reduce the potential for contact with others.
- Control of traffic flow should also be considered. Limit the number of individuals permitted to be present in the workspace. Designate the direction of foot traffic in main circulation paths such as corridors and entryways using available university signage through Facilities Management.
- Minimize access to shared spaces such as kitchenettes, lounges etc. to ensure physical distancing and ensure proper cleaning/disinfecting protocols are implemented. Consider staggering lunch/break times to minimize opportunities to gather.
- [Requests](#) can be placed with Facilities Management to have standard COVID-19 signage regarding distancing, hygiene, traffic flow, points of entry and exit points, and decals installed in your area.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

## Administrative Controls

### Adjust work processes

- Hygiene Practices
  - In combination with physical distancing, appropriate hygiene practices are a critical prevention measure for COVID-19
  - [Hand washing](#) and [hand rub \(hand sanitizer\)](#) posters should be printed and posted in the work area
- Advise employees & enable to practice the following:
  - Self-assessment tool – Instruct individuals to utilize the [Brock screening survey](#) if they are experiencing symptoms. If sick, individuals must stay home and contact their Physician, Public Health or Telehealth Ontario for further instructions. Employees must also notify their supervisor.
  - Avoid touching the face.
  - Hand hygiene – wash hands regularly following proper handwashing techniques. In areas with no proximity to a sink, use alcohol-based hand sanitizer (ensure hand sanitizer is available in the work area).
  - Respiratory Etiquette – cover coughs and sneezes. Turn away from others when coughing or sneezing and into upper sleeve or elbow instead of hands.
  - Cleaning/Disinfection – provide appropriate cleaning/disinfecting products so that common touchpoints can be disinfected by individuals before each use. Establish routine cleaning of high touch surfaces with the work area. Avoid sharing of work tools and equipment.
- Adjustments to Shift or Hours of Operation
  - Introduce staggered shifts as appropriate to minimize the number of people at a given time. Prior to implementing, consult with Labour Relations for applicable collective agreement requirements.
  - Schedule lunch and break times and restrict gathering in groups during these times.
  - Establish procedures for newly required processes as described above and ensure clear and adequate communication of the documented procedures.

## Personal Protective Equipment (PPE)

### General considerations

- Supervisors should complete risk assessments to determine the required personal protective equipment (PPE) for the tasks within their areas, for protection from COVID-19 and from other hazards that may be present.
- HSW can assist supervisors in their risk assessments to determine any required PPE.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

- Where no reasonable alternative exists and a necessary work assignment calls for employees to be within 2m/6ft of each other (either indoors or outdoors) for greater than 15 minutes, all employees engaged in such work are required to wear appropriate PPE, i.e., a [medical grade](#) mask (covering mouth and nose – molded around the nose) and eye protection (goggles or face shield).
- Personal Protective Equipment Procedures requirements for research with human participants are provided further down.
- Gloves should be worn if in their role the employee is expected to have contact with blood or body fluids and/or contact with equipment, materials or surfaces that could be contaminated where hand hygiene is not possible.
- Wearing gloves does not replace the need to perform hand hygiene and in general circumstances/ environments would not be required if hand hygiene is possible.
- Individuals should avoid touching their eyes, face, and mouth even if wearing gloves.
- Hand hygiene should be performed both before and after wearing gloves.
- If implementing the use of gloves, based on a risk assessment, ensure that adequate supplies are available.
- Ensure that individuals receive instruction on procedures for proper donning and doffing of gloves.
- Consult this updated information on the [use of medical/non-medical masks and physical distancing](#).

## Community Protective Equipment

- Non-medical masks/face coverings are considered community protective equipment (CPE). CPE is equipment worn by a person to prevent community spread of the COVID-19 virus to other individuals.
- Brock University requires anyone entering on-campus buildings wear a non-medical face covering, if they're able to, in a manner that covers their mouth, nose and chin. An exception is within individually assigned offices.
- Brock University requires the use of non-medical masks/face coverings outdoors when with others and able to maintain a physical distance of 2m/6ft.
- Information can be found on the [Government of Canada's website on Non-Medical Masks and Face Coverings](#). It is important to know that non-medical masks/face coverings are not personal protective equipment (PPE). These masks are not regulated and are very different from medical masks or N95 respirators. How well a non-medical mask/face covering works depends on the materials used, how the mask is made and most importantly, how well it fits.

## Specific Mitigation Measures for Research with Human Participants

The [Researcher COVID-19 Mitigation Strategy](#) is a checklist that has been modified from the Department Specific COVID-19 Mitigation Strategies to guide research applicants in implementing standard measures that need to be in place before work commences. This checklist needs to be filled out and submitted as part of the application process for research with human participants.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

## Cleaning and disinfection guidance

For research in shared research spaces, follow the guidance contained in the [Health, Safety, and Wellness Guidance for Shared Campus Research Spaces in COVID-19 Pandemic Conditions](#).

For spaces that are not a wet lab, follow this cleaning and disinfection guidance below. It has been customized from a more general guidance available on SharePoint at this [link](#).

- Routine and effective cleaning and disinfection is an essential activity to prevent the spread of the virus that causes COVID-19. Coronaviruses are one of the easiest types of viruses to kill with the appropriate disinfectant when used according to the label directions.
- Use disinfectants that have a Drug Identification Number (DIN). A DIN is an 8-digit number given by Health Canada that confirms it is approved for use in Canada.
  - When a department requires disinfectant products (paper towels, mobile hand sanitizer, disinfectant for high touch point) and/or protective equipment (face coverings, gloves), a designated employee for the department can order and obtain these products via Workday. For information on how to order the COVID-19 materials, [see the video](#) for the step-by-step process.
  - Other readily available disinfectants are alcohols; at proper concentration, between 70-80%, are effective and widely used.
- Every person is responsible for the cleaning and disinfection of their space including work surfaces, keyboards, handles and knobs, light switches, etc. that are in their immediate surroundings.
  - Every worker should clean and disinfect at the beginning and the end of the workday as a minimum.
  - Custodial Services staff is working with new enhanced cleaning and disinfecting protocols throughout the campuses.
  - Disinfectants and paper towel should also be available in common use areas for routine disinfection. Eg., kitchenettes (refrigerator door handles, countertop, dining tables, microwave ovens, coffee makers, etc.), printing stations, archives drawers, etc.
  - For research with human participants, the researcher must clean surfaces that were touched by the researcher or the participant in between uses by different personnel.
- Check the expiry date of products you use and always follow manufacturer's instructions. DO NOT ever mix disinfectants. Some mixtures can produce harmful gases.
- For disinfectants to be effective, the surface/object/item must be free from visible soil. Therefore, if there is soil, including dust, clean before applying a disinfectant.
- Where possible, protect keypads and high touch electronic devices with a plastic cover to facilitate disinfection.
- Cleaning and disinfecting the workplace is not a replacement for hand hygiene and other practices recommended for COVID-19 prevention, instead it is a complement.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

## How to disinfect

- Before using a disinfectant, read and follow the manufacturer's instructions. Also, read any applicable Safety Data Sheet and wear any required PPE.
- Check the expiry date of the product. DO NOT ever mix disinfectants. Some mixtures can produce harmful gases.
- If visibly dirty, clean the area/surface with water and soap.
- Apply the product according to the manufacturer's instructions.
  - When using a liquid disinfectant, apply the disinfectant on a piece of paper towel. Ensure the towel is saturated with the disinfectant before applying the disinfectant to the touch points/surfaces. Reapply the disinfectant as needed to leave a visible film.
  - Allow the surface to air dry. Follow the manufacturer's indicated drying time.
- Discard the used piece of paper towel/wipe or other waste in a plastic-lined garbage bin.
- Wash hands with soap and water.

More safety information from the Government of Canada is available [here](#).

## Specific personal protective equipment in research with human participants for protection against COVID-19

In accordance with current legislation, a physical distance between individuals of at least 2 m or 6 feet and remain key mitigation strategies to lower the risk of COVID-19 transmission. No effort should be spared to maintain the distancing. When physical distancing cannot be maintained, a medical mask and goggles or face shield must be worn. Other PPE may also be required that are appropriate for the risk posed by the activity they are engaged in. See [Table 2](#) below.

When worn properly, [medical masks](#) level 1 and level 2 provide a higher degree of protection from COVID-19 than do the masks that have been commonly used during the pandemic (e.g., cloth masks and untested disposable masks). Medical masks meet the specifications of the [American Society of Testing and Materials \(ASTM\)](#), an international organization that develops and publishes voluntary consensus technical standards that operate globally. N95 or KN95 respirators provide a superior level of protection that is warranted for activities that pose the risk of aerosol generation.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

Goggles must fit snugly, particularly from the corners of the eye across the brow. They are highly effective as eye protection. Indirectly vented (Figure 1) or non-vented goggles are preferred for infection control; the recommended type of goggles should be rated [CSA](#) (Canadian Standards Association) class 2.



Figure 2. Class 2, indirectly vented, snug fit, over prescription lenses goggles.



Figure 1. Face shield class 6 fit snugly (adjustable) along the brows to the corners of the eyes, extends to the ears, the crown, and past the chin, are an alternative to goggles, and protect from

Face shields are commonly used as an infection control alternative to goggles when goggles cannot be worn over prescription lenses or to provide protection to other facial areas. For areas where splash or sprays of hazardous substances is a risk, a face shield should have crown and chin protection and wrap around the face to the point of the ear to provide optimal protection. The recommended type of shield should be rated CSA class 6, like the one in Figure 2.

In the absence of splash or spray risks and no flammable material are in proximity to the wearer, the face shield that is commonly used during the pandemic, with a thin plastic shield can be used **if** it fits snugly along the brows and to the corners of the eyes, cover the sides up to the ears and go past the chin.

If N95 or KN95 respirators are needed, they must be fit tested to ensure proper protection. You may use a fit testing services used previously or contact [HSW](#) for assistance finding a service provider. N95 or KN95 respirators can be obtained in Sciences Stores or through the fit tester service provider.

PPE is available through [Sciences Stores](#) or via [Workday catalogues](#).

The necessary type and levels of PPE in relation to the type of interpersonal contact are indicated in the Table 2.

**Table 2. The minimum type of PPE that should be used for research with human participants**

Type of Contact	Minimum PPE required *
None or minimal contact, physical distancing can be maintained at all times.	Cloth masks/facial coverings for all parties if 2m distance can be maintained at all times.
Some physical contact, low-intensity contact, a 2m distance can be maintained most of the time but it could be compromised. The duration threshold is 15 minutes in a single interaction or over multiple shorter intervals in a day.	Medical mask and goggles or face shield for all parties (See specifications above).
Sustained physical contact, high intensity, physical distancing not possible.	Medical masks and goggles or face shield for all, gloves and a lab coat for researcher. (See specifications above)
Aerosol generation is anticipated or probable.	N95 or KN95 Respirators (fit testing required) and goggles or face shield for all, and gloves and a lab coat for researcher while in pandemic conditions. (See specifications above)

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

\*when the required PPE interferes with the research activity, a case analysis can be requested to the ADR to determine if a suitable alternative exists.

## Personal Protective Equipment Procedures

The way and order in which personal protective equipment is donned and doffed is of great importance to prevent self-contamination during the process. It should be done sequentially and carefully. Follow the steps as shown in diagrams below and the instructions further down on donning and doffing, and care and use of PPE.

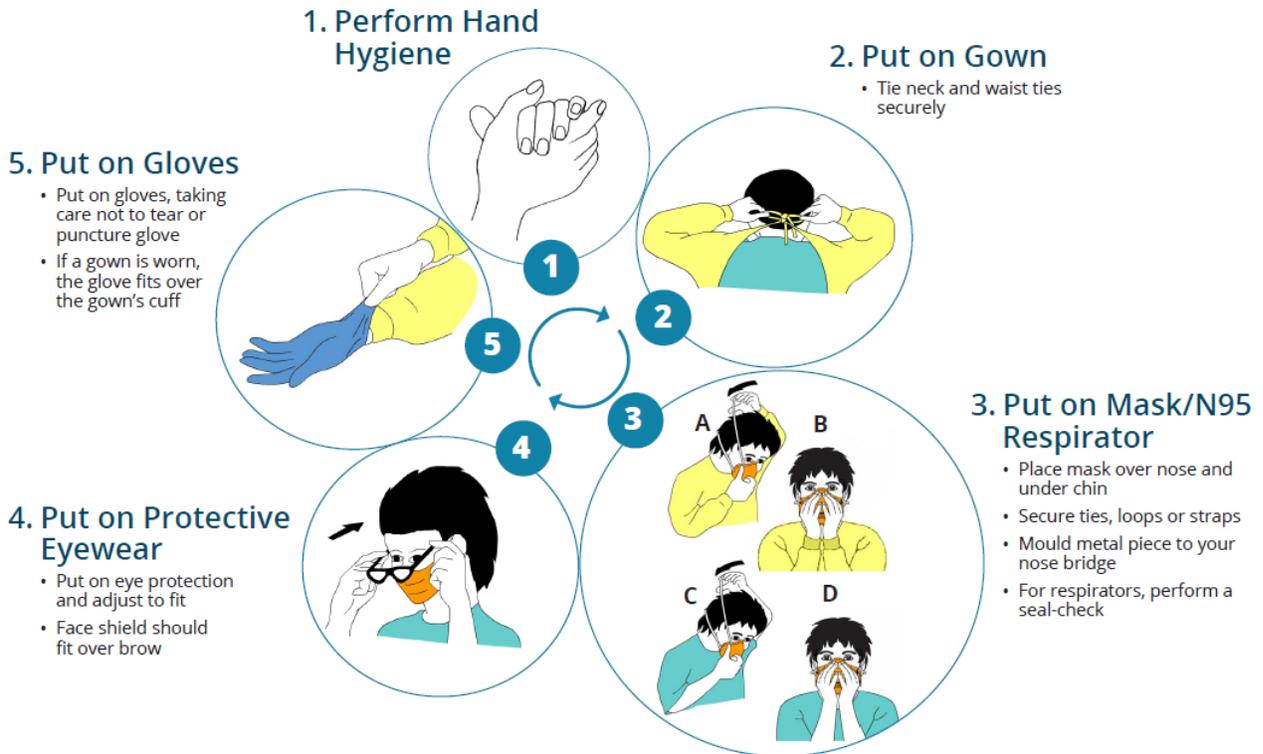
Goggles and face shields are personal equipment for the researcher/worker. However, for the human participants where turnover is high, they can be reassigned after the equipment have been thoroughly decontaminated. An alternative that increases confidence in the sanitation of the equipment is to let it sit for a week after decontamination before reassigning.

Goggles and face shields must be disinfected before and after wearing them. They shall be stored in a clean location and protected from any contaminants. Wash or sanitize hands after handling or removing the goggles and face shields.

<https://www.publichealthontario.ca/-/media/documents/ncov/ipac/ppe-recommended-steps>

## Recommended Steps:

### Putting On Personal Protective Equipment (PPE)



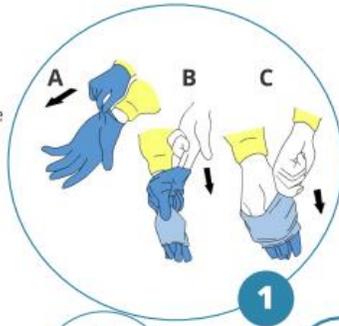
For more information, please contact Public Health Ontario's Infection Prevention and Control Department at [ipac@oahpp.ca](mailto:ipac@oahpp.ca) or visit [www.publichealthontario.ca](http://www.publichealthontario.ca).

## Recommended Steps:

### Taking Off Personal Protective Equipment (PPE)

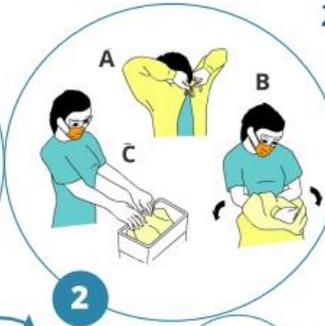
#### 1. Remove Gloves

- Remove gloves using a glove-to-glove / skin-to-skin technique
- Grasp outside edge near the wrist and peel away, rolling the glove inside-out
- Reach under the second glove and peel away
- Discard immediately into waste receptacle



#### 2. Remove Gown

- Remove gown in a manner that prevents contamination of clothing or skin
- Starting with waist ties, then neck ties, pull the gown forward from the neck ties and roll it so that the contaminated outside of the gown is to the inside. Roll off the arms into a bundle, then discarded immediately in a manner that minimizes air disturbance.



#### 6. Perform Hand Hygiene

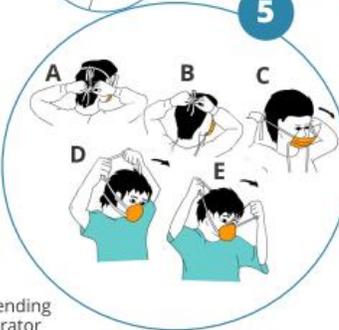


#### 3. Perform Hand Hygiene



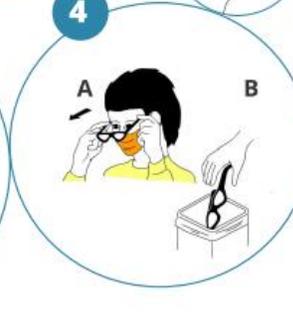
#### 5. Remove Mask/ N95 Respirator

- Ties/ear loops/straps are considered 'clean' and may be touched with hands
- The front of the mask/respirator is considered to be contaminated
- Untie bottom tie then top tie, or grasp straps or ear loops
- Pull forward off the head, bending forward to allow mask/respirator to fall away from the face
- Discard immediately into waste receptacle



#### 4. Remove Eye Protection

- Arms of goggles and headband of face shields are considered to be 'clean' and may be touched with the hands
- The front of goggles/face shield is considered to be contaminated
- Remove eye protection by handling ear loops, sides or back only
- Discard into waste receptacle or into appropriate container to be sent for reprocessing
- Personally-owned eyewear may be cleaned by the individual after each use



This is an excerpt from Routine Practices and Additional Precautions In All Health Care Settings (Appendix L) and was reformatted for ease of use.

Watch the videos in the links below to learn how to don and doff PPE and how to properly wash and sanitize hands. Practice the techniques as needed until you are confident you can do it correctly.

[How to Hand Rub](#)

[How to Remove Goggles and Face Mask](#)

[How to Handwash](#)

[How to Remove Gloves](#)

[How to Put on a Gown and Gloves](#)

[How to Wear N95 Respirator](#)

[How to Put on a Mask](#)

[Multiple resources](#)

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

## The use of face coverings

In research with human participants the use of face coverings is indicated for the researcher and the human participant when physical distancing can be maintained at all times, see **Table 2**.

Face coverings should:

- allow for easy breathing
- fit securely to the head with ties or ear loops
- maintain their shape after washing and drying
- be changed as soon as possible if damp or dirty
- be comfortable and not require frequent adjustment
- be made of at least 2 layers of tightly woven material fabric (such as cotton or linen)
- be large enough to completely and comfortably cover the nose and mouth without gaping

Some masks also include a pocket to accommodate a paper towel or disposable coffee filter, for increased benefit.

face coverings should:

- not be shared with others
- not impair vision or interfere with tasks
- not be placed on children under the age of 2 years
- not be made of plastic or other non-breathable materials
- not be secured with tape or other inappropriate materials
- not be made exclusively of materials that easily fall apart, such as tissues
- not be placed on anyone unable to remove them without assistance or anyone who has trouble breathing.

More information on this can be found from the [Public Health](#).

## Considerations on and care for medical masks

Medical masks offer a higher degree of protection than untested disposal masks and cloth masks due to type of material used and their construction; however, by design they do not provide complete protection from pathogens and other contaminants because of the loose fit between the surface of the mask and the face.

Much care must be placed to the way in which masks are worn and handled, as the protection they afford is only as good as how well the wearer follows proper procedures.

Following are instructions on how to put on and remove face masks, and on how to care for them if reused.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

## How to put on a mask

1. Before entering the shared research space, remove any jewelry; tie and secure hair back, if you have long hair.
2. [Clean your hands](#) with soap and water or [hand sanitizer](#).
3. Remove a mask from the box and make sure there are no obvious tears or holes in either side of the mask.
4. Determine which side of the mask is the top. The side of the mask that has a stiff bendable edge is the top and is meant to mold to the shape of your nose.
5. Determine which side of the mask is the front. The colored side of the mask is usually the front and should face away from you, while the white side touches your face.
6. Follow the instructions below for the type of mask you are using.
  - *Face Mask with Ear loops*: Hold the mask by the ear loops. Place a loop around each ear.
  - *Face Mask with Ties*: Bring the mask to your nose level and place the ties over the crown of your head and secure with a bow.
  - *Face Mask with Bands*: Hold the mask in your hand with the nosepiece or top of the mask at fingertips, allowing the headbands to hang freely below hands. Bring the mask to your nose level and pull the top strap over your head so that it rests over the crown of your head. Pull the bottom strap over your head so that it rests at the nape of your neck.
7. Mold or pinch the stiff edge to the shape of your nose.
8. If using a mask with ties: Then take the bottom ties, one in each hand, and secure with a bow at the nape of your neck.
9. Pull the bottom of the mask over your mouth and chin.
10. Watch the video on how to [put on](#) and [take off](#) a mask.

## How to remove a single-use mask

1. Clean your hands with soap and water or hand sanitizer before touching the mask. Avoid touching the front of the mask. The front of the mask is contaminated. Only touch the ear loops/ties/band. Follow the instructions below for the type of mask you are using.
2. *Face Mask with Ear loops*: Hold both ear loops and gently lift and remove the mask.
3. *Face Mask with Ties*: Untie the bottom bow first then untie the top bow and pull the mask away from you as the ties are loosened.
4. *Face Mask with Bands*: Lift the bottom strap over your head first, then pull the top strap over your head.
5. Throw the mask in the trash. Clean your hands with soap and water or hand sanitizer.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

Disposable masks are not intended to be used more than once. If your mask is damaged or soiled, or if breathing through the mask becomes difficult, remove the mask, discard it safely, and replace it with a new one. To safely discard your mask, place it in a plastic bag and put it in the trash. Wash or disinfect your hands after handling the used mask.

If a disposable mask needs to be reused due to low availability, reduce the numbers of times of reuse to the minimum possible. Discard the mask daily and immediately if it gets wet or when it becomes hard to breathe through it. Since the handling of masks increases the chances of contaminating its inner side (the side in contact with the mouth/nose), any handling must be done with extreme care, following the procedures below.

## Storing used masks

1. Designate a container exclusively for keeping the reusable mask. Label it as “reusable mask and [name of the user]”. A rectangular plastic box with a lid that can accommodate the mask flat on the bottom with the bands extended is appropriate.
2. Remove gloves following the procedure shown in the [video above](#).
3. [Wash](#) or [disinfect](#) your hands.
4. Disinfect the lid and sides of the container with an appropriate disinfectant.
5. Remove the container’s lid and lay in on its outer side over a clean surface, taking care not to contaminate hands with the surrounding objects, counter, etc. If hands get in contact with any object/item, disinfect them immediately.
6. Disinfect the container on the inside.
7. Remove mask following the procedure shown the [video above](#). Taking the mask by the band, lay it flat inside the container. The inner side (side in contact with your face) will face the bottom of the container. Determine how you will orient the top of the mask and always place it in container the same way to avoid confusion.
8. The bands will lay free from contact with both the inner and outer sides of the mask.
9. Close the container.

## When removing the mask for reuse

1. [Wash](#) or [disinfect](#) your hands.
2. Disinfect the lid and sides of the container with an appropriate disinfectant.
3. Remove the container’s lid and lay in on its outer side over a clean surface, taking care not to contaminate hands.
4. Take the masks by the bands taking care not to touch the mask surface.
5. Put the mask on following the instructions on the video above.
6. At any point during the process, if you think you contaminated the inner side of the mask, discard it. Disinfect hands any time you consider hands could have been contaminated.

When wearing masks, they will be covering the mouth and nose or will be removed. The mask should NOT be slid out of its protective position (covering the mouth / nose) to temporarily uncover the nose, as doing so may cause its inner side to get contaminated.

# HSW Guidance for Research With Human Participants Under COVID-19 Pandemic Conditions

---

## Other remarks on PPE

- When removing any PPE, care must be taken to avoid touching the contaminated side (external side or side that is not in contact with the skin) with skin and hair.
- Lab coats or gowns and gloves will be used only inside the workspace and never in a public space.
- Lab coats must be removed when they get contaminated (and decontaminated before washing) or are visibly dirty.
- When gloves get contaminated, they must be removed following the proper procedure ([video](#)) AND in between research participants.
- Gloves not contaminated with biohazards will be disposed of in garbage bin lined with a plastic bag.
- Goggles and face shields shall be decontaminated before and after wearing them. They should be stored in a clean area protected from any contaminants (e.g., in a dedicated, individual drawer or box).

## Application process for research with human participants during COVID-19 pandemic conditions

1. Principal investigator (PI) and research team members read and understand general HSW guidance and the guidelines contained herein.
2. Principal Investigator submits the following documents to the Associate Dean Research to request authorization for themselves and any supervisees:
  - a. the [Research Facility Access and Prioritization Request Form](#)
  - b. the [Researcher COVID-19 Mitigation Strategy](#)
  - c. the [Research with Human Participants Risk Checklist](#)
  - d. any [associated Research Ethics Board applications or modification requests](#)
3. If necessary, requests for amends to the plan are sent to the researcher.
4. The Associate Dean Research will notify the PI when research has been authorized.
5. Researchers will be scheduled for access to on-campus spaces (if relevant) once they have confirmed with the Associate Dean Research that authorization and regulatory clearance are in place.