T3iii: Essential Supplies – Eye Protection

Why is this Tool Helpful to You?

Eye protection reduces the spread of virus due to coughing, breathing and talking. Physical barriers like face-shields or goggles can also protect against COVID-19 infection.

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What You Need

Preferred: Plastic safety goggles or a face shield

Somewhat Effective: Wrap-around sunglasses, safety glasses

No evidence that they are effective: Prescription glasses, normal sunglasses

Not Effective: No eye protection

Should I Wear Eye Protection?

When leaving the house – Yes.

When at home and you are symptomatic or have had recent contact with someone with COVID-19 – Yes.

When at home and you have been in lock-down for greater than 14 days and no one at home has symptoms – No.

There is no harm in wearing eye protection, and it is believed to prevent droplets and a gaseous cloud containing the virus traveling up to 8 meters / 27 feet from reaching the eyes, which can cause infection

- COVID-19 is transmitted in droplets or a gaseous cloud exhaled by an individual infected with COVID-19
    - These droplets can travel 2 meters or 6 feet away from the individual
    - A gaseous cloud can travel for up to 8 meters / 27 feet

Source: [JAMA](#)

- Eye protection will prevent or reduce COVID-19 transmission through droplets contacting the eyes
    - Eye protection also discourages eye-rubbing, which also protects you against COVID-19
- Eye protection is **only effective** when used in combination with other personal protective equipment (PPE), frequent hand washing/sanitizing, social distancing, and avoiding face-touching
- You **are strongly advised to** wear eye protection when caring for someone suspected of having COVID-19 or if you exhibit symptoms of COVID-19 and must leave the house (e.g. to get tested)
- You **should** wear eye protection if you may come into contact with people
- Contact lenses **are safe to wear**, but are **not** protective and must be disinfected between uses (like prescription glasses) when leaving the house or in contact with someone suspected of having COVID-19

Source: [CDC](#) – see Eye Protection, [Government of Canada](#) – see Eye Protection, [UK Government](#) – see Eye Protection, [AAO](#), [Southern College of Optometry](#)

Types of Eye Protection

- <u>Face shields or plastic safety goggles</u> are sufficient to prevent COVID-19 transmission

    o The majority of hospital staff use face shields when caring for COVID-19 patients (<u>UK Government</u>)

    o The videos show how to make a **soda bottle face shield** and a **more complex alternative**

    o Plastic safety goggles may also be worn by hospital staff when face shields are limiting or when using microscopes (<u>Public Health Ontario</u>)

- <u>Safety goggles or wrap-around sunglasses</u> can provide limited eye protection

- <u>Prescription glasses or normal sunglasses</u> have large gaps between the lenses and the face, and thus provide inadequate protection

    o There is no evidence that normal glasses provide significant protection against COVID-19

Source: <u>CDC</u> – see Eye Protection, <u>UK Government,</u> <u>Southern College of Optometry</u>

Putting-On Eye Protection
Adapted from CDC Guidelines

- Wash your hands with alcohol-based hand rub or soap and water for 20 seconds before putting on eye protection

- Place your eye protection on your face **after** putting on your face mask and **before** putting on your gloves, and adjust to fit

  - Place goggles/face shield over any prescription glasses

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

1. GOWN
- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
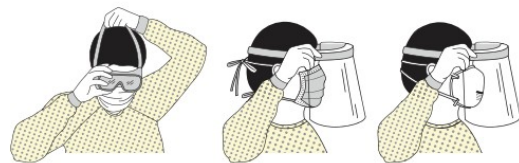- Fasten in back of neck and waist
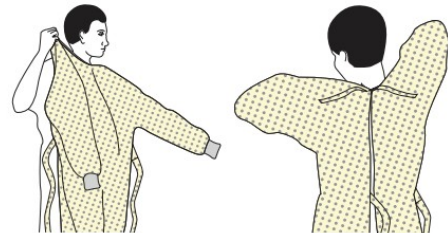
2. MASK OR RESPIRATOR
- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
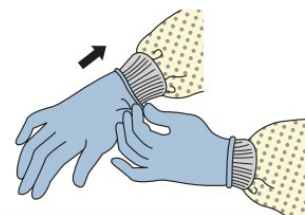- Fit snug to face and below chin
- Fit-check respirator

3. GOGGLES OR FACE SHIELD
- Place over face and eyes and adjust to fit

4. GLOVES
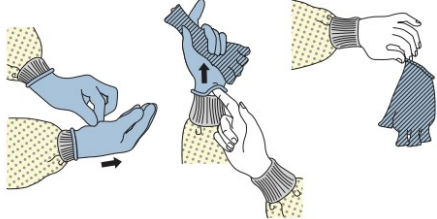- Extend to cover wrist of isolation gown

Removing Eye Protection

Adapted from CDC Guidelines

- Only remove your eye protection **after** taking off your gloves and **before** taking off your mask

- Remove a face shield or goggles by removing it from behind, pulling the straps over the head and allowing the goggles or shield to fall forward, away from you

- **Do not** touch the front of the goggles or face shield as it may be contaminated with COVID-19

HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:
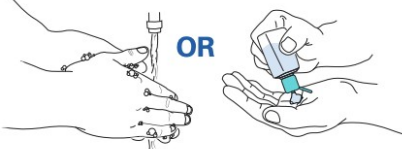
1. GLOVES
- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container

2. GOGGLES OR FACE SHIELD
- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container

3. GOWN
- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container

4. MASK OR RESPIRATOR
- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container

5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE

OR

PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS BECOME CONTAMINATED AND IMMEDIATELY AFTER REMOVING ALL PPE

CDC

Reusing Eye Protection

- Eye protection must be cleaned between uses:

  1. Hand wash with hot water (greater than 70°C/160°F) and dish soap for about 1 minute, then rinse and dry before disinfecting with store bough disinfectant cleaning solution or disinfecting wipes

  2. Soak in 1-part bleach to 50 parts hot water (greater than 70°C/160°F) for greater than 5 minutes, then rinse with water

     - This means 2 tablespoons or 20mL of bleach per liter of water, or 1/3 of a cup bleach per gallon of water

- Eye protection should be dried with disposable paper towel or air dried

- Wash hands with soap and water or alcohol-based hand rub after cleaning eye protection

- Any prescription glasses or contact lenses should also be cleaned or disinfected often

Source: Government of Canada – Eye Protection