

Coronavirus COVID-19

BC Centre for Disease Control | BC Ministry of Health

Management of PPE-Related Skin Damage for Health Care Workers

The continuous, extended and repetitive use of personal protective equipment (PPE), including masks, gloves and safety glasses/goggles, may cause adverse skin reactions.

This document provides interim guidance to health care workers (HCW) on how to prevent and manage PPE-related skin damage from increased usage during the COVID-19 pandemic.

The main symptoms HCWs may experience as a result of prolonged use include: burning, itching, stinging, contact dermatitis, hives, ulcers, scaling, papules, cracks and maceration.

Factors that may contribute to skin irritation include: length of wear time, pressure, friction, sweating, the use of cosmetics and skin products.

Note: It is the responsibility of each HCW to verify with their institutional Infection Control or Workplace Health teams that any measures taken to prevent or manage PPE-related skin injuries do not interfere with the efficacy of PPE or contradict any workplace policies.

A Strategies to Prevent Skin Damage from Prolonged PPE Use

1 Surgical or Procedure Mask

Follow proper practices for wearing a mask: make sure it fits properly, adjust the metal piece to your nose before putting it on [see **BCCDC How to Wear a Face Mask poster - link below**] and alternate the placement slightly to avoid friction over the same area when you use it. If ears are irritated, use a mask with ties instead of ear loops, or use items to pull away the ties from ears if available and approved by your health facility.

2 Eye Protection

Safety goggles are a barrier to droplets and splashes and only need to be tightened to secure the goggle to your face. Over-tightening goggles may irritate your skin. Wash the straps with plain soap and water to prevent irritation from sweat on straps.

3 Gloves

Gloves are not required to be worn for every task. Glove use should be in alignment with the **COVID-19 PPE Allocation Framework** and based on a Point of Care Risk Assessment. Wearing gloves for extended periods of time can increase the risk of skin irritation from moisture within the gloves.

4 Hand Hygiene

Perform hand hygiene before and after wearing or taking off your PPE.


- Follow the proper steps for hand hygiene [see **BCCDC Hand Hygiene poster - link below**].
- To make hand washing less harsh, use warm water. Wet your hands first, then use soap. Use plain, mild soap or cleanser and be gentle when drying your hands.
- At home, use plain soaps, choose cleaning, baby and cosmetic products that are low in irritants and for sensitive skin to minimize irritants that contact your skin.

5 Moisturize

When to moisturize your face and hands:

- Before and after work, and regularly throughout the workday. If your skin is irritated, moisturize every time you wash your hands or change PPE during shift.

How to moisturize:

- Use a small amount of moisturizer (size of a pearl) that will not leave an excessive layer on your skin, but enough to prevent skin dryness. 
- To moisturize hands efficiently at work, focus on your fingers, fingertips and back of the hand. Only moisturize your palms if you have dry, irritated skin in that area.

BCCDC Posters: <http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/signage-posters>



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Which moisturizer to use:

- d. Use water-based moisturizers for normal skin.
- e. At work, DO NOT use barrier creams (moisturizers with high concentrations of silicone, methicone or dimethicone), ointments or oil-based moisturizers such as petrolatum or petroleum jelly, as they increase risk of cross-contamination.
- f. Do not use moisturizers with more than 5% urea as they may, over time, cause your skin to thin.
- g. At home, use plenty of moisturizer to condition your skin frequently, such as every time after washing your face, hands, or taking a shower. Products containing petrolatum or petroleum jelly may be used at home.

B Strategies to Manage Skin Damage from Prolonged PPE Use

1 For skin redness, stinging, burning and dryness

- a. Use moisturizers that contain hyaluronic acid, ceramide, vitamin E or other repairing ingredients.
- b. Use moisturizer after you wash your hands or use alcohol-based hand rub.
- c. At home, use moisturizer frequently. Products containing > 70% petrolatum/petroleum jelly can help your skin.

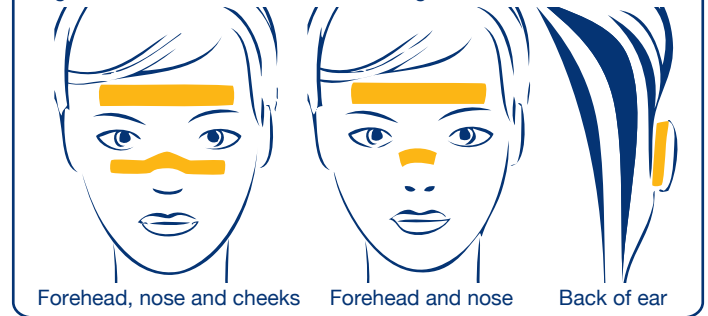
2 For small cuts or raw spots in the hands:

- a. Follow all recommendations to moisturize skin in B1.
- b. Apply barrier film products to protect skin against friction and moisture. Warning: these contain acrylates, read label first if you are allergic.

3 For face indentations and pressure marks/sores:

- a. Use dressing material such as thin foams with silicone, thin hydrocolloids or film dressings as an interface between PPE and the skin to protect areas that receive increased pressure (Figure 1). Use only if it does not disrupt the efficacy of PPE. Do not use with an N95 respirator or alternative unless you are fit-tested with the dressing in place.

Figure 1. Possible Placement of Dressing Material



- b. Soak gauze compresses in cold water or normal saline and apply to the pressure mark for approximately 20 minutes. Dry skin gently and apply moisturizer. Repeat 2 or 3 times daily. Do not use hot water or alcohol-based products.
- c. For instances of small cuts, linear fissures or lacerations, film-type dressings can help cover and protect the wound.
- d. If secondary infection is suspected, in addition to 3b, apply a thin layer of an over-the-counter topical antibiotic cream over lesioned skin.

4 For cases of delayed pressure hives/urticaria

You may find the use over-the-counter antihistamines helpful. Please follow product instructions.

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