

# DERMATOLOGIST'S VIEW ON MANAGING HEALTHCARE WORKERS WITH OCCUPATIONAL DERMATITIS



**Dr. Houle** graduated from the Université de Montréal in Dermatology and completed a fellowship in occupational skin disease at the University of Toronto. She currently works at the CHU de Québec, a tertiary care center affiliated to Laval University, in Québec, Canada where she runs the occupational and contact dermatitis clinic. She is a recent member of the NACDG, as well as the new Canadian member of the GERDA and is active in research related to contact dermatitis. Dr. Houle is also the co-director of the Laval University dermatology residency program. In her spare time, she likes to hike in the beautiful region of Charlevoix, in Eastern Quebec.



[Dermatologist's View on Managing Healthcare Workers with Occupational Dermatitis](#)

Equivalent to one hour of CPD Education. Certificate of completion is available.

This presentation aims to provide healthcare workers (HCWs) support, in recognizing the signs and symptoms of occupational skin dermatitis. Solutions used for prevention and seeking an accurate diagnosis to determine optimal treatment are highlighted.

The prevalence of skin dermatitis has been on the rise for HCWs and the general population, and more recently has increased further as a result of the COVID-19 pandemic. This is mainly due to frequent hand washing, the use of alcohol gel, and contact with allergens in combination with the occlusive effect of gloves. Contact dermatitis can adversely affect both function and quality of life, leading to a high economic impact.



Occupational contact dermatitis (OCD) accounts for **15 to 20%** of all occupational diseases



Total economic cost of OCD is over annually<sup>1</sup> **\$1 Billion**

## RECOGNIZING ADVERSE REACTIONS TO GLOVES

Glove related disorders are defined as:



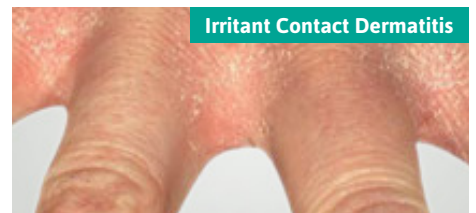
**Type I Latex Allergy**

- Immediate hypersensitivity reaction caused by latex proteins HEV B contained in natural rubber latex gloves



**Type IV Chemical Allergy**

- Delayed allergic reaction caused by chemicals used in manufacturing of both natural rubber latex and rubber synthetic gloves
- Occurs when skin is damaged



**Irritant Contact Dermatitis**

- Skin irritation or damage caused by multiple factors which include but are not limited to hand hygiene, hand hygiene products, extended glove wear, etc

More often HCWs cannot differentiate between these 3 main glove related conditions adequately as the appearance and symptoms can be similar. After wearing gloves, occupational dermatitis can include the following symptoms:



**Pruritus (Itching)**



**Swelling**



**Erythema**



**Cracking**

# GETTING A HANDLE ON OCCUPATIONAL DERMATITIS

To manage these skin conditions adequately, all contributing factors need to be identified and treated accordingly. Therefore, it is important that when hand dermatitis is not getting better, patients are referred to a dermatologist or an allergist who can organize patch testing, so that an accurate diagnosis can be made.

## STEP 1

### Early Identification



Detailed medical history

Physical exam

Patch testing

	IRRITATIVE	ALLERGIC
Location	Hands	Hands, Face
Symptoms	Burning, Pain	Pruritus
Primary Lesions	Dryness, fissures	Vesicles, bullae, oozing
Demarcation	Limited to site of contact	Extends beyond site of contact
	Clear demarcations	
Timing of Appearance	Immediate (burning)	<b>NEVER</b> after first contact
	Few weeks	
Duration	Hours-days	Days-weeks

## Results

## STEP 2

### A Prevent contact with the identified allergen

There are two types of glove induced allergies. The first offender is thought to be Type I Latex Allergy. Today, with the decreased use of powdered latex and high protein latex gloves, the immediate hypersensitivity reaction from Type I Latex Allergy amongst HCWs has decreased.

Healthcare glove conversions from Natural Rubber Latex to Rubber Synthetic gloves have shown an increase in the prevalence of Type IV Chemical Allergies. Chemical accelerators used during the manufacturing process have been identified as the main allergens. Chemical accelerators are necessary to give gloves strength, comfort, and durability. Exposure to these accelerators can result in skin disorders. Fortunately, they are unnecessary because glove styles can be replaced with options that use biologically safer alternatives.

### CAUSES TO SOLUTIONS

Chemical accelerators identified as allergen in Type IV Chemical Allergy

Innovative biologically safer accelerator gloves offer a solution

Chemical accelerators needed to provide glove strength, elasticity and durability

Innovative accelerator-free gloves offer a solution

### B Implement routine preventative practices



New technology with the development of biologically safer accelerator gloves to reduce chemical allergy



Non-latex, accelerator-free gloves offer safety and protection to HCW's



Excellent sensitivity while maintaining strength



Ensures comprehensive protection for HCW's with chemical allergies



Provides desirable fit, donning properties and grip

## REMEMBER



**1** Alcohol based gel is better than water and soap



**2** Establish a "skin vacation" routine



**3** Apply moisturizer often

### References:

- Centers for Disease Control and Prevention, Skin exposures & effects. CDC. Available from: <https://www.cdc.gov/niosh/docs/96-115/diseases.html#Allergic%20and%20Irritant%20Dermatitis>. Accessed October 6, 2022.

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WS.03.23

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