



Workplace Contact Dermatitis: Facts for Workers in Ontario

What is contact dermatitis?

Contact dermatitis is skin redness and soreness. It is the most frequently reported workplace skin disease in Ontario. You can get contact dermatitis from chemicals, detergents or cleaners.

Signs of contact dermatitis include:

- redness
- itching and pain
- scaling or flaking
- water blisters
- cracking and bleeding.

What causes workplace contact dermatitis?

Two causes of work-related contact dermatitis are irritants and allergies. An allergy occurs when your body becomes sensitive to a chemical. An irritant can be a strong soap or chemical.

An allergy causes workplace contact dermatitis in two ways:

- an immediate hive (blister) reaction on the skin called contact urticaria
- a rash called allergic contact dermatitis.

Irritant contact dermatitis happens when an irritant causes direct damage to the skin. Damage can be:

- acute (sudden and quick) after contact with a high concentration of a chemical that sets off a reaction like a burn
- chronic (persists), or delayed (when it forms after months or years of contact with an irritant).

Who gets workplace contact dermatitis?

Each year, 1,000 claims are reported in Ontario for contact dermatitis. The table (page 3) lists many of the jobs where people can get contact dermatitis. Also listed are some of the things that can cause it. Irritant contact dermatitis is much more common than allergic contact dermatitis.

How do you get contact dermatitis?

Allergic Contact Dermatitis

Allergic contact dermatitis has to do with your body's immune system. Your immune system protects your body from things that can make you sick.

The cells in your body react when a foreign substance enters it. A foreign substance can be a strong chemical that is absorbed into your skin. This can lead to an allergic response in your body, such as a rash. The rash comes out 24 to 96 hours after contact.

How severe your reaction is depends on:

- how long and how often you have contact with the substance
- what skin problems, rashes, cuts, scratches or scrapes you have (cuts will let the allergen enter your body)
- whether the temperature and humidity in your workplace cause you to sweat or make your skin dry out or chap
- other factors such as your age and family history of allergic dermatitis.

Irritant contact dermatitis

Irritant contact dermatitis makes your skin red and sore from direct contact with toxic substances in your workplace. There are two kinds of irritant dermatitis: acute irritant contact dermatitis and chronic irritant contact dermatitis.

Acute irritant contact dermatitis is caused by a single, short, intense contact with a strong irritant. Irritants can be acids, some metals, and some organic compounds. An acute skin reaction results, like a burn. Most people who have contact with strong irritants have the same type of reaction.

Chronic irritant contact dermatitis is caused by repeated or longer contact with a mild irritant. Mild irritants can be soaps, detergent, mild acids or alkalis, greases, solvents or cutting fluids.

Workers can have many types of reactions to this kind of irritant. How severe your reaction is depends on:

- personal factors such as a history of allergy or contact dermatitis, or cuts, rashes and skin injuries
- what part of your body is exposed to the irritant:
 - damage is greater where the skin is thinner, such as in the face and upper back
 - damage is greater on the face, arms and hands (exposed skin) if the substance is airborne.
- if your work setting makes it easy for the irritant to enter your skin, such as:
 - through sweat from heat and humidity in the workplace (sweat can dissolve chemical powders, and your skin can absorb the dissolved chemical easily; although sweat sometimes can water down the chemical and wash it away, which can protect your skin)
 - through low humidity that causes dry skin
 - through dampness causing the skin to chap
 - through scrapes from friction in using some kinds of equipment.

What happens if you think you may have contact dermatitis?

Ask yourself these questions:

- did your skin problem start when you changed jobs?
 - does your skin problem improve when you are away from your job?
 - do you think that any specific substance at work is causing your skin problem?
- If you said yes to any of these questions, your work may be causing your skin problems.

Write a list of things you have contact with at work. These might be chemicals or other substances, heat, cold or dryness. Get copies of the Material Safety Data Sheets (MSDS) and take the list with you when you see your doctor. Tell your doctor if you know about other workers with the same kind of skin problems.

Your doctor or specialist will check to see if you have allergic contact dermatitis by giving you a patch test. For this test, the doctor or technician will place tiny amounts of the suspected substances on your skin. If you have contact dermatitis, some of the chemicals will make your skin react by getting red and sore. Your doctor will help you decide how to best treat your dermatitis.

Can you still work?

Most workers who have contact dermatitis can return to work. It will depend on:

- what kind of contact dermatitis you have
- how severe it is
- how it is treated.

If you have workplace dermatitis, talk with your employer and file a claim with the Workplace Safety and Insurance Board (WSIB). The WSIB will write to your doctor for a copy of your medical report to see if you're entitled to compensation. A WSIB adjudicator will make a decision about your claim by talking to you, your employer and your doctor.

What can your employer do?

Your employer can do a number of things to help you avoid getting contact dermatitis or making your dermatitis worse. For example, they can provide protective clothing, barrier creams and masks. They may also move you to an area where you are not in contact with the chemical (particularly for allergic contact dermatitis).

For more information about contact dermatitis and your workplace

- Call the Canadian Centre for Occupational Health and Safety (CCOHS), 1-800-668-4284 or on the internet at www.ccohs.ca

- Read the WSIB's Resource Sheet for Workplace Health and Safety. You can get this by calling 1-800-663-6639 or at www.wsib.on.ca
- Look at the Skin Cancer Foundation website at www.skincancer.org/
- Look at the Guides and Guidance Material on the website of the National Occupational Health and Safety Commission of Australia at their website <http://www.nohsc.gov.au/OHSInformation/NOHSCPublications/>

Some irritants and allergens found in many jobs

| Job | Irritant | Allergen |
|--|--|---|
| Agriculture workers | Artificial fertilizers, disinfectants, pesticides, cleaners, gasoline, diesel oil, plants and grains | Rubber, oats, barley, animal feed, veterinary medications, cement, plants, pesticides, wood preservatives |
| Artists | Solvents, clay, plaster | Turpentine, pigments, dyes, colophony, epoxy resin |
| Automobile and aircraft industry workers | Solvents, cutting oils, paints, hand cleansers | Chromates, nickel, cobalt, rubber, epoxy and dimethacrylate resins |
| Bakers and confectioners | Flour, detergents | Flavours and spices, orange, lemon, essential oils, dyes, ammonium persulphate and benzoyl peroxide. |
| Bartenders | Detergents, wet work | Orange, lemon, lime, flavours |
| Bookbinders | Solvents, glues | Glues, resins, leathers |
| Butchers | Detergents, meat, waste | Nickel, sawdust |
| Cabinet makers, and carpenters | Glues, detergents, thinners, solvents, wood preservatives | Stains, glues, woods, turpentine, varnishes, colophony |
| Cleaners | Detergents, solvents, wet work | Rubber gloves |
| Coal miners | Dust (coal, stone), wet conditions | Rubber boots and masks |
| Construction workers | Cement | Chromates, cobalt, rubber and leather gloves, resins, woods |
| Cooks and caterers | Detergents, vegetable juices, wet work | Foods, onions, garlic, spices, flavours, rubber gloves, sodium metabisulphite, lauryl and octyl gallate, formaldehyde |
| Daycare workers | Detergents, cleaners, wet work | |
| Dentists and dental technicians | Detergents, hand cleansers, wet work | Local anaesthetics, mercury, methacrylates, eugenol, disinfectants, rubber, dental impression material |
| Dry cleaners | Solvents | Rubber gloves |
| Electricians | Soldering fluxes | Fluxes, resins, rubber |
| Electroplaters | Acids, alkalis | Nickel, chromium, cobalt |
| Embalmers | | Formaldehyde |
| Floor-layers | Solvents | Cement, resins, woods, varnish |
| Florists and gardeners | Manure, artificial fertilizers, pesticides, wet work | Plants, pesticides, rubber gloves |
| Foundry workers | | Phenol- and urea-formaldehyde resins, colophony |
| Hairdressers | Permanent wave solutions, shampoos, bleaching agents, wet work | Dyes, persulphates, nickel, perfumes, rubber |
| Hospital workers | Detergents, disinfectants, foods, wet work | Latex gloves |

| Job | Irritant | Allergen |
|-------------------------------|--|---|
| Homemakers | Detergents, cleansers, foods, wet work | Rubber gloves, foods, spices, flavours, nickel, chromates, polishes |
| Jewellers | Detergents, solvents | Epoxy resin, metals, soldering fluxes |
| Mechanics | Oils, greases, gasoline, diesel fuel, cleaners, solvents | Rubber gloves, chromates, epoxy resin, antifreeze |
| Medical personnel & nursing | Disinfectants, detergents, wet work | Latex gloves, anaesthetics, antibiotics, antiseptics, phenothiazines, formaldehyde, glutaraldehyde, liquid chloroxylenol, hand creams |
| Metal workers | Cutting oils, solvents, hand cleansers | Nickel, chromates, additives in some cutting oils |
| Office workers | Solvents, (photocopiers, adhesives) | Rubber, nickel, glue |
| Painters | Solvents, thinners, wallpaper adhesives, hand cleansers | Turpentine, thinners, cobalt, chromates, polyester resins, formaldehyde, epoxy resin, adhesives, paints |
| Photographic industry workers | Solvents, wet work | Rubber gloves, colour developers, para-aminophenol, hydroquinone, formaldehyde, sodium metabisulphite, chromates |
| Plastics workers | Solvents, acids, styrene, oxidizing agents | Hardeners, phenolic resins, polyurethanes, acrylics, plasticizers |
| Printers | Solvents | Nickel, chromates, cobalt, colophony, formaldehyde, turpentine |
| Rubber workers | Solvents, talc, zinc stearate, uncured rubber | Rubber chemicals, dyes, colophony |
| Shoemakers | Solvents | Glues, leather, rubber, turpentine |
| Slaughterhouse workers | Disinfectants, wet work, animal entrails and secretions | Rubber gloves |
| Tannery workers | Acids, alkalis, reducing and oxidizing agents, wet work | Chromates, formaldehyde, tanning agents, fungicides, dyes |
| Teachers | Chalk dust | |
| Textile workers | Fibres, bleaching agents, solvents | Formaldehyde resins, dyes, chromates, nickel |
| Veterinarians | Disinfectants, wet work | Latex gloves, anaesthetics, antibiotics, antiseptics, phenothiazines, formaldehyde, glutaraldehyde, liquid chloroxylenol, hand creams |

Workplace Safety and Insurance Board

Ontario's Workplace Safety and Insurance Board (WSIB) plays a key role in the province's occupational health and safety system. Funded by employers, the WSIB is one of the top 10 disability insurers in North America. In addition to a strong prevention mandate, the WSIB provides insurance for injuries and illnesses incurred in workplaces covered under the *Workplace Safety and Insurance Act* and supports early and safe return to work for injured workers.

This information is available in several languages by calling our information hotline at 416-344-4999 toll-free 1-800-465-5606 or Telephone Service for the Deaf (TTY): 1-800-387-0050



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