

Healthy Skin for Healthcare Workers



What you will learn:

The objective of this document is to help you understand the nature of occupational contact dermatitis (OCD). We will touch on topics such as risks of developing OCD, how to prevent it and how to choose the right gloves. You will also be able to describe a good skin care plan.

About Occupational Contact Dermatitis (OCD)

OCD is:

- Inflammation of the skin
- Caused by external substances
- In the workplace
- Can occur at any time of life
- No history of allergies needed
- Not infectious, so it cannot be passed on to others

Impact of OCD:

- Medical and pharmaceutical costs
- Workers compensation
- Job Retraining
- Job Modification
- Quality of life

Dermatitis will make the skin:

- Dry (often starting in the web spaces between the fingers)
- Red and itchy
- Split and crack
- Flake and peel
- Burn and sting
- Sometimes small blisters

Example of dermatitis



Causes of Dermatitis in Healthcare Workers -

Possible causes of irritant contact dermatitis in healthcare workers are:

- Water and wet work. This is where the hands are:
 - In water for longer than 2 hours a shift
 - Handling wet things for more than 2 hours a shift
 - In occlusive gloves for longer than 2 hours a shift
 - Washed more than 20 times a shift
 - Guidelines on wet work are available at:
www.safeworkaustralia.gov.au
- Use of disinfectant style hand cleaners
- Constantly wearing occlusive gloves, which causes heat and sweating
- Frequent drying with paper towel

Causes of allergy affecting health care workers can include:

- Ingredients used in manufacture of rubber gloves (accelerators)
- Preservatives, fragrances and other ingredients in hospital hand cleansers and moisturisers



TYPES OF DERMATITIS & CAUSES

There are 3 types of contact Dermatitis:

- Irritant contact dermatitis- accounts for 60-70% of cases
- Allergic contact dermatitis- accounts for 20-30% of cases
- Contact urticaria - accounts for 5% cases

Irritant contact dermatitis:

- Everybody is sensitive to skin irritation
- Cumulative in nature – it builds up over time
- Personal or family history of asthma/eczema/hay fever increases risk
- The most common causes are:
 - Water and wet work
 - Soaps and detergents
 - Heat and sweating

Allergic contact dermatitis

Allergic contact dermatitis is an individual response and can occur at any time e.g. after first exposure or after many years.

Allergic contact dermatitis

- is a delayed rash that appears 8-24 hours after re-exposure
- may happen after a spill, where there is a prolonged exposure, or during a normal working day
- only requires a very small amount of contact with the allergen to cause a reaction
- is a condition that takes days or weeks to heal
- is a lifelong allergy
- is diagnosed by Patch testing

Common causes of allergic contact dermatitis include:

- Hair dye
- Nickel
- Cement and leather
- Glues and coatings e.g. epoxy resins
- Preservatives in some products
- Basic Red 46

Contact Urticaria

Contact urticaria is a different type of allergy and happens immediately on skin contact (usually within 10-30 mins of contact with the allergen)

- It can cause hay fever like symptoms or asthma, as well as skin reactions
- Contact urticaria is diagnosed by prick testing or RAST testing (blood test)
- Common causes of Contact urticaria are:
 - o Natural rubber latex
 - o Hairdressing bleach
 - o Some foods

Latex allergy

- Latex allergy usually starts as contact urticaria on the skin, but on occasions can then develop into anaphylaxis
- It is best to wear non-powdered disposable latex gloves or gloves made from an alternative

material such as nitrile

- If patient allergic to latex they must not have any contact with any latex product! This includes balloons and condoms.
- **People with a latex allergy must not forget to tell dentists or medical practitioners about the allergy before any medical procedure.**

Eczema

Sometimes people use the words eczema and dermatitis to mean the same thing but they are different. A good way to explain the difference is **Eczema** comes from within the body and **Dermatitis** is caused by something 'outside' of the body

Eczema also:

- Runs in families
- Often associated with asthma and hayfever
- Common in infancy and childhood
- Often affects non-exposed areas of body



Example of ICD



Skin Care

Good skin care is vital in the prevention and treatment of OCD. All workplaces should have a good skin care plan. This should include the use of mild hand cleaners, alcohol based hand rubs (ABHR) and moisturisers

Moisturising

Moisturiser is an important part of a good skincare regimes as it can help prevent dry skin and dermatitis :

- Where possible, apply before work and at meal breaks.
- If not possible to use during the day, apply when you get home and before bed

When selecting a moisturiser:

- a fragrance free ointment or cream is best used after work and before bed
- a lotion in a pump pack is useful during the day and should be used frequently
- barrier creams have a similar role

When moisturising

- Rub cream all over hands and wrists
- Include web spaces and sides of fingers

Moisturiser and Healthcare workers

- Check that moisturiser is suitable for use with chlorhexidine based hand wash, as some moisturisers can affect the antiseptic properties
- Moisturiser also needs to be compatible with ABHR
- Water based moisturisers should be used in healthcare environment
- Oil based moisturisers are not suitable as they can sometimes destroy protective properties of latex gloves and polyisoprene gloves

Hand cleansers

There are several types of hand washes used in healthcare including – soaps, antimicrobials and ABHR.

- Soaps are used for general hand washing
- Antimicrobials are used for 'clean' procedures but can be drying to the skin
- Some antiseptic hand wash can be drying to the skin. Especially in combination with frequent wet work and use of paper towelling – this can lead to development of irritant contact dermatitis
- Avoid antimicrobial soaps if hands are irritated – use ABHR or another suitable alternative- talk with infection control personnel

Hand cleansers- Alcohol based hand rubs

- Reduce the need to use traditional hand washing technique (therefore reducing contact with water, soaps and paper towel- common causes of ICD)
- should only be used when hands not visibly soiled (for more info visit www.hha.org.au)
- Gentle on the skin, added emollients, fast to use, better 'Bug killing' power
- ABHR will sting hands that are cracked or irritated (does not mean you are allergic to it)



Skin Protection – Gloves

Healthcare workers wear gloves for many tasks they perform.

Gloves

- Offer protection when there is likely to be exposure to bodily fluids
- Sometimes gloves can be over worn which leads to sweating
- Change gloves regularly to reduce sweating
- Wearing gloves does not eliminate need for hand hygiene
- Wearing incorrect glove type can be hazardous and provide inadequate protection from bodily fluids and biological hazards

For example:

- Latex, nitrile, neoprene/polychloroprene, polyurethane and polyisoprene are suitable for:
 - tasks where there is exposure to bodily fluids
 - Invasive procedures
 - Patient bathing if risk of contact with bodily fluids
 - Pathology collection
- Vinyl gloves – tasks where exposure to bodily fluids is unlikely
- When handling chemotherapy drugs, double gloved sterile latex or nitrile should be worn. PVC not suitable as drugs can penetrate.
- Bone cement can penetrate through most gloves including latex. Double gloved, sterile neoprene may be used (follow advice from manufacturers of bone cement also/glove manufacturer)
- Sterilisation- formaldehyde based products can sometimes penetrate through latex, neoprene and poly vinyl gloves. Nitrile or polyethylene are most effective. Double glove. More information available at www.ansell.com.au
- **Avoid wearing powdered latex gloves**

What to do if you have skin problems?

Tell manager/report problem

- Report skin problem early- don't wait until your hands are in really bad condition
- If hands are sore, don't stop following hand hygiene as you risk your own health and your patients health- hospital acquired infection
- Reporting a skin problem can allow workplaces to keep a register of hand problems in a particular department or across whole organization

Skin care at work and home

- Use simple hand cleansers which are pH neutral.
- Products used at work should be on the HPV (Health Purchasing Victoria) list
- Use ABHR approved by your workplace Infection Control Personnel
- If you have ABHR build up on hands, wash with warm water and plain hand wash
- Follow correct hand washing techniques, ensure soap is washed off thoroughly, warm water (not hot)
- Moisturise when possible
- At home – use a soap substitute and greasy moisturiser

Medical help

- See a GP/Workplace Dr
- May need corticosteroid ointment or cream
- Blood test for total IgE and latex (RAST)
- You may need to see Dermatologist
- You may require time off work or job modification to allow skin to heal (or rostering change)
- If no improvement with previous treatments or allergy is suspected, Patch Testing may be required

Patch testing

- Used to diagnose allergy
- Occurs over a series of 3 appointments
- Patches applied to back with small samples of ingredients
- Patch testing is not used to diagnose food allergy
- More information is available at www.occderm.asn.au/services.html

Example of patch testing



Example of positive patch test reactions



Workplaces and Prevention tips for OCD

- Employers have a responsibility in preventing OCD, this may include:
 - Replacing powdered latex gloves with non-powdered varieties
 - Replacing an irritating hand wash with less irritating one
 - Providing a choice of gloves by supplying latex and non-latex varieties
 - Substituting hand washing with ABHR where appropriate
 - Supplying wall dispensers for hand wash, moisturisers, ABHR, which dispense appropriate amount
- Develop an 'Action plan' or management plan for workers who develop OCD
- A good example is Royal Children's Hospital - 'Sore Hands' program
- Workers also have a role in preventing OCD in the workplace:
 - Consult with infection control/hand hygiene personnel about suitable hand wash, moisturiser and glove alternatives
 - Dry irritated hands carry more bugs and micro shed- risk to patient health
 - Take rings off at work, as water and soap can become trapped underneath, causing dermatitis
 - Don't ignore dermatitis
 - See a health professional

Healthcare workers must remember:

- Consult with infection control staff about suitable hand wash, moisturiser and gloves
- Don't ignore contact dermatitis or hand eczema
- Dry, irritated and damaged hands carry more bugs and are a risk to self and patients
- Work together to modify work environment
- Follow a good skin care plan, good moisturiser, hand cleanser, appropriate gloves (avoid powdered latex gloves)
- Early detection and diagnosis of skin problem is crucial
- Report skin problems to management

More information

- Occupational Dermatology Research and Education Centre, at the Skin and Cancer foundation
- www.occderm.asn.au
- www.skincancer.asn.au
- Email admin@occderm.asn.au
- Ph. 03 9623 9402

