

Workplace Health and Safety Bulletin



Skin Problems From Work

Skin problems from work are also called occupational skin conditions, and the kinds and seriousness of these vary widely. There are a large number of agents which can cause skin conditions and these agents can be found in almost any workplace from the oil industry to chemical plants, to food processing, dry cleaning, construction, manufacturing, and cleaning industries. Although occupational skin conditions are common, they can be prevented. This Safety Bulletin tells you what causes occupational skin conditions, the types of skin conditions you could get, and how to prevent them.

Types of skin conditions and their causes

Skin conditions usually occur on the part of your body that is in direct contact with a hazardous agent. They mostly occur on the hands, but any part of your body can be affected. Skin conditions from work can be caused by chemical, mechanical, physical and biological agents.

Although many chemicals can cause skin conditions, they do not all act the same way. They mainly cause contact dermatitis which can vary in appearance, from redness of the skin to a rash, hives, dryness, scaling, blistering, or oozing of the skin. Some chemicals are irritants and will cause an irritant contact dermatitis, while others may be sensitizers and will cause an allergic contact dermatitis.

Irritants will injure anyone's skin if your skin is exposed to too much of the chemical for too long. However, some chemicals, like strong acids, require very little contact with your skin to cause damage. Some irritants are soaps, solvents, alkalis, oil, and water, which is the most common irritant. Some workers who may develop irritant dermatitis are construction, poultry processing, and health care workers, janitors, mechanics, dry cleaners, and hairdressers.

Sensitizers will cause an allergic reaction in some workers if exposure is prolonged or repeated. Not everyone will become sensitive to a chemical. You will not usually react to a sensitizer on your first contact, but if you develop sensitivity to it, you will have a reaction after that whenever you come in contact with that chemical. Therefore, you should avoid further contact. Some sensitizers are nickel, chromium, mercury, rubber, glues, some antibiotics, and some plants. Printers, electroplaters, cement, plastic, dental, agricultural, and construction workers are some workers who could be exposed to sensitizers.

Other chemicals such as coal, tar, crude oil, and products made from them can cause:

- an acne-like condition of the skin (folliculitis);
- photosensitivity which makes your skin more sensitive to sunlight (certain medications such as tetracycline and antibiotics can also do this);
- skin cancer; and
- pigment changes where your skin changes color and get darker in patches.

Such workers as those in road construction, coal tar plants, oil fields, wood preservation, chemical plants, and refineries could develop these conditions.

Light skin patches (pigment changes) can be caused by some cleaning agents, as phenolis, used by hospital workers, or by rubber especially in workers who wear rubber gloves. Corrosive chemicals such as acids, cement, chromium, and lime can cause ulcers, open sores of the skin, in workers such as cement workers and electroplaters.

Mechanical agents, which cause physical trauma to the skin, can be found in any workplace and can affect all workers. Friction and pressure from the constant use of tools, blows, and other forms of injury, can cause thickening of your skin, blisters, cuts, scrapes, or puncture wounds. Fibreglass itch is caused by mechanical irritation from its fibres.

Skin conditions such as burns, heat rash, frostbite, gangrene, and skin cancer can be caused by *physical agents*. Physical agents are heat, cold, sunlight, electricity, artificial ultraviolet light, x-rays, and other ionizing radiation and they can affect workers such as outdoor construction workers, foundry workers and radiation technologists.

Bacteria, fungi, viruses, and insects are *biological agents* that can cause skin infections. Workers who work with animals, plants, or food, such as in packing houses, bakeries, or agriculture and health care workers can be exposed to biological hazards.

Risk factors for skin problems

The effects of the agents which cause skin conditions depend on the kind of agent, the strength, and the amount of time you are exposed. In other words, the weaker the strength of the agent and the less time you are exposed, the less chance there is of it harming you. But in addition, there may also be certain factors about you which can determine how these agents will affect your skin. You might be more likely to develop a skin condition if you:

- do not keep yourself and your work area clean;
- have either dry or very oily skin;
- have fair skin;
- sweat a lot;
- have allergies or conditions such as asthma, hay fever, or a skin condition which runs in the family; and
- have other skin conditions — dryness, rashes, cuts, abrasions.

How can you prevent skin conditions?

Know what you are working with, how it can affect you, and how to protect yourself from it. Your employer should have Material Safety Data Sheets (MSDSs) which will provide this information on the harmful agents you work with. Avoid exposure to hazardous agents at all times by following safe personal and work habits.

Use controls that are available in your workplace

- ventilation systems;
- enclose or isolate the process to enclose harmful substances — in a separate room, in covered tanks;
- use physical barriers and screens where splashing can occur;
- wet down dusts and fibres, and vacuum when possible; and
- use mechanical equipment to handle substances.

Practice good housekeeping

- store materials properly;
- dispose of waste frequently;
- clean up spills promptly;
- wet down dust and fibres, and vacuum when possible; and
- use mechanical equipment to handle substances.

Practice personal cleanliness

- always wash your hands before drinking, eating, smoking, leaving work, and anytime they become very dirty — however, remember that excessive hand washing with soaps and detergents can damage skin;
- avoid harsh soaps, use a soap which cleans dirt off easily;
- do not use solvents or bleaches to clean your hands;
- always dry your skin thoroughly after cleaning and use towels only once;
- if water is not available, use a waterless skin cleaner; and
- if you shower at work, store work clothes separately from street clothes. If work clothes are laundered at home do them separately from household laundry.

Use personal protective equipment

- depending on the substances or agents you are working with and how you may be exposed, you may require:
 - gloves
 - finger cots
 - liners for gloves (to absorb sweat as it also can cause dermatitis)
 - sleeves (arm coverings)
 - coveralls
 - goggles or face shields
 - aprons
 - special shoes or boots
- all protective equipment
 - must be the right kind for the hazard (check the MSDS or ask your supervisor, who can then check with the supplier or manufacturer, if necessary);
 - should fit properly and not restrict movement (especially gloves);
 - must be removed with care to avoid contaminating yourself; and
 - should be kept clean and in good repair — discard if it cannot be mended.

Use skin creams

- barrier cream can provide protection from dusts or chemicals and make it easier to clean the skin. Apply the cream before starting work, after breaks, and anytime you wash your hands. However, it should be used only when protective clothing such as gloves, sleeves, and face guards cannot be used safely or conveniently.
- cream with Sun Protection Factor (SPF) should be used when working outside in the sun. Protective clothing such as hats, shirts with long sleeves, and sunglasses should also be worn.
- moisturizing cream such as hand lotion, should be used after work especially if your skin is dry. It provides moisture to the skin and helps to keep it healthy.
- always wash your hands before applying skin cream.

Follow proper first aid procedures

- read the MSDSs for the hazardous agents you use to find out what protective equipment you need to use and what you should do if you are accidentally exposed to the agent or if you are injured by it;
- know the location of first aid kits and safety equipment .e.g. emergency shower;
- if you have a skin problem report it to your supervisor or medical department. Keep the affected skin clean, protect it from injury, dust, excessive sun and wind, and from other harmful substances.

Always report hazards to your supervisor. If you are unsure about something, also ask your supervisor. Both you and your employer have a legal responsibility to ensure your health and safety at work. And remember skin conditions from work can be prevented.

See your doctor if you have a skin condition which does not go away. Be sure to explain exposures you have at work that may be causing the problem.

For more information:



www.gov.ab.ca/hre/whs/publications/pdf/gh009.pdf

What to do if You Think You have Health Problems From Your Work





www.gov.ab.ca/hre/whs/publications/pdf/gh006.pdf

What Your Doctor Needs to Know About Your Job

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