

Protective clothing

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1.0 Key points

- Protective clothing is a type of PPE (personal protective equipment).
 It can provide protection for workers when all other control measures can't adequately eliminate or minimise risks to a worker's health and safety.
- Protective clothing must be suitable for the nature of the work and any risks associated with that work.
- Protective clothing must be a suitable size and fit. It must also be reasonably comfortable to wear and be compatible with any other PPE or clothing workers are required to wear or use.
- PCBUs (persons conducting a business or undertaking) must make sure protective clothing is maintained, repaired and replaced so it continues to protect workers.
- PCBUs cannot pass on the cost of providing protective clothing to workers, or make them provide their own.
- PCBUs must engage with workers when making decisions about worker health and safety. This includes choosing and making changes to protective clothing.

2.0 Introduction

This guide is for PCBUs (persons conducting a business or undertaking) who provide their workers with protective clothing.

The guide offers advice on what to consider when selecting protective clothing and outlines requirements for providing and maintaining protective clothing for your workers. It will help you to meet your obligations regarding providing protective clothing under the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

What is protective clothing?

Protective clothing is a type of PPE (personal protective equipment). Protective clothing is any clothing specifically designed, treated, or made to help minimise risk to a worker's health and safety while working.

Examples of protective clothing include:

- safety boots
- gloves
- hard hats
- high visibility clothing
- overalls and protective aprons.

PPE is the last resort

PPE should only be used as a last line of defence after all other reasonably practicable actions have been taken to eliminate or minimise risks.

Risks must be managed firstly by elimination, or if this is not reasonably practicable, through minimisation. You can minimise risk by using substitution, isolation, or engineering control measures. If it is not reasonably practicable to minimise using those control measures, you can use administrative controls, and then, PPE to reduce any remaining risks to workers' health and safety.

For more detailed information on controlling health and safety risks at work generally, see WorkSafe quick guide: Identifying, assessing and managing work risks

What does the law say?

The Health and Safety at Work (General Risk and Workplace Management)
Regulations 2016 require PCBUs to provide workers with PPE (such as protective clothing) that is:

- suitable for the nature of the work and any risks associated with that work
- a suitable size, fit, and be reasonably comfortable
- suitably maintained, repaired and replaced
- compatible with any other PPE.

PCBUs must also provide workers with information and training about how to properly wear or use PPE, and how to store and maintain it.

3.0 Supplying and paying for protective clothing

PCBUs must provide workers with protective clothing free of charge

As a PCBU you must provide all necessary protective clothing for your workers. You cannot pass on the cost of providing necessary protective clothing to your workers, or make them provide their own. This includes the cost of replacements because of wear and tear or accidental damage or loss.

Workers can choose to provide their own protective clothing. If they do, you must make sure it provides suitable protection and is compatible with any other clothing or PPE you require them to wear or use. A worker can change their mind about providing their own protective clothing at any time. If they do, they need to give you reasonable time to arrange alternative protective clothing for them.'

Other persons in your place of work (such as visitors or volunteers) must also be provided with appropriate PPE, including protective clothing. They should also get training and instruction on how to use or wear it.

The difference between protective clothing and regular work clothes

Protective clothing is worn specifically to help minimise risk to a worker's health and safety while working. It can be used to protect against a specific or general workplace hazard (after all other reasonably practicable control measures have been put in place to eliminate or minimise the risk).

Regular clothing or footwear is not protective clothing. For example, a worker's everyday clothing such as pants or jeans worn at work are not generally considered protective clothing.

Uniforms or other clothing worn solely to identify a person as an employee, are not normally considered protective clothing.

Facilities for putting on and taking off protective clothing

You must provide appropriate changing facilities for your workers to put on and take off their protective clothing and other PPE.

4.0 Things to think about when choosing protective clothing

Identify the hazards

You need to know what the hazards are before you can consider potential protective clothing options. Remember that all hazards you identify must have all other reasonably practicable control measures applied first (see *PPE is the last resort* on page 3). The table below lists examples of hazards your workers might be exposed to where protective clothing may be able to provide additional protection. Your workers will also be able to help you to identify workplace hazards.

BODY AREA	POTENTIAL HAZARD/INJURY EXAMPLES			
Head and neck	 Chemical, biological or metal splash Radiation/UV radiation Temperature extremes Falling or flying objects Bumps to the head Hair getting tangled in machinery 			
Eyes	 Chemical, biological or metal splash Gas, vapour and fumes Dust Projectiles Very bright light 			
Ears	NoiseTemperature extremesUV radiation			
Hands and arms	 Chemical, biological or metal splash Radiation/UV radiation Temperature extremes Abrasions, cuts, and punctures Electric shock 			
Feet and legs	 Chemical, biological or metal splash Temperature extremes Prolonged dampness or immersion in water Abrasions, cuts, and punctures Electrostatic build-up Falling objects Slipping 			
Whole body	 Chemical, biological or metal splash Temperature extremes Wet weather Impact or penetration Dust Excessive wear or entanglement of own clothing 			

TABLE 1:Potential hazard/injury examples

Consider the features of each hazard

When thinking about the hazards you have identified, you should also consider:

- How might the hazard cause injury or illness?
 - By direct contact, or environmental exposure.
 - To their whole body or only certain parts.
- How long could they be exposed to the hazard?
 - Only for a short time.
 - Gradual exposure over a longer period.
- How much could they be exposed to?
 - High concentrations.
 - Low levels.
- Are risk conditions constant or likely to change?
 - Risks are limited to when certain work processes are happening.
 - Risks are present across all work tasks.
 - Risks change between seasons (summer/winter).

Examples of potential hazards/injuries and protective clothing examples

The table below lists possible protective clothing options for various parts of the body. Your workers, PPE supplier, and a health and safety professional will be able to offer advice on the best options for your situation (see Get expert advice).

BODY AREA	POTENTIAL CLOTHING EXAMPLES		
Head and neck	 Face shields Sunhats Safety helmets (hard hats) Neck protection (eg scarves for use during welding) Hairnets 		
Eyes	 Safety glasses and goggles Face shields Visors See WorkSafe quick guide Protecting your workers' eyes 		
Ears	EarplugsEarmuffsSemi-insert/canal capsSee WorkSafe guidance Hearing protection		
Hands and arms	Gloves (latex, rubber, leather)Long sleeved topsGauntlets and sleeving that covers part or all of the arm		
Feet and legs	 Rubber boots Thermally insulated boots Safety boots with protective toecaps and penetration-resistant mid-soles Foundry boots Chainsaw boots Anti-static, electrically conductive boots Boots with oil/chemical resistant soles Non-slip shoes 		
Whole body	 Conventional or disposable overalls Aprons Chemical suits Cooling vests Weather-proof gear - water-proof trousers, rain coats Fire-proof clothing Hi-visibility (hi-viz) clothing 		

TABLE 2: Protective clothing examples

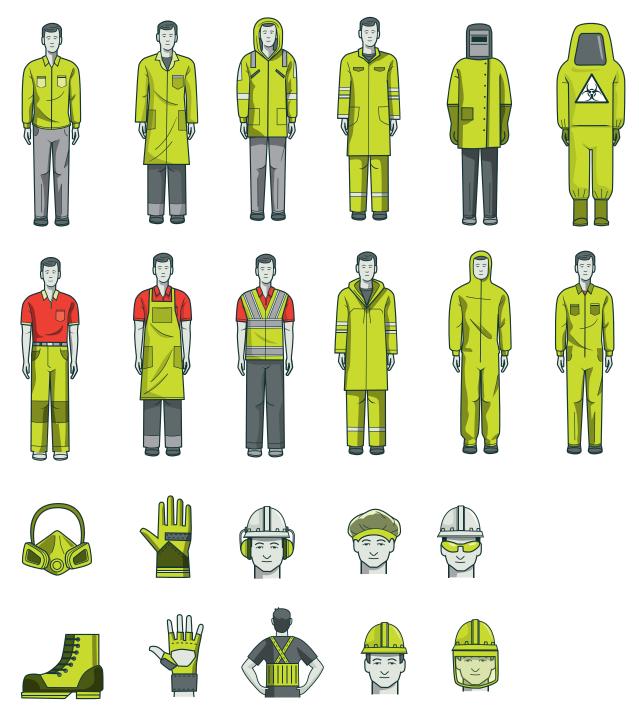
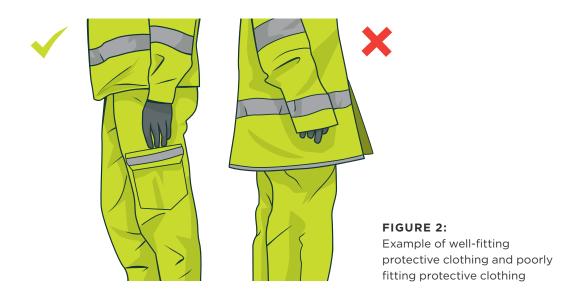


FIGURE 1: Protective clothing examples

Fit and comfort

Protective clothing must fit the worker properly for both comfort and safety.

- Clothing should be easy to put on and take off.
- It should not interfere with normal movement required for the job. For example walking, climbing stairs or ladders, sitting, standing, and operating plant or machinery.
- It should not be too loose or baggy. Loose or baggy clothing could get snagged on objects or cause tripping.
- Pants and sleeves should not hang down over hands or feet. Rolled up sleeves and trousers could get caught in machinery.
- Protective clothing should cover an entire area, even when a worker is moving.
 For example, if a person raises their arms or leans over, clothing should not leave parts exposed.
- Head protection should be snug. It should not be able to slide around or tip forward.
- Clothing should not be so tight that it restricts blood flow.
- Clothing should not have sharp edges or rough surfaces that could harm the worker or others near them.
- Where possible, protective clothing should be made of breathable materials to avoid thermal discomfort (workers becoming too hot or sweaty while working).



Compatibility with other clothing and PPE

Protective clothing must be compatible with other PPE workers may need to wear or use at the same time. For example:

- gloves should fit with sleeves
- trousers should fit over or inside boots (whichever is best practice in your industry)
- protective eye wear should be compatible with any head protection or respiratory equipment (not cause air leaks around face seals)
- ear muffs should not interfere with wearing safety helmets. Some safety helmets can be fitted with specially-designed eye and hearing protection.
- Protective eyewear should fit comfortably over prescription glasses.

Sometimes protective clothing itself may create a new risk. For example:

- heavy or layered protective clothing may increase the risk of a worker over-heating and suffering a heat-related illness or injury
- bulky protective clothing may restrict a worker's mobility
- wearing gloves when operating machinery may create a risk of the gloves getting caught
- hearing protection could stop a worker hearing vehicles approaching
- face shields may reduce vision.

Any new risks identified as a result of PPE requirements must also be managed.

Consider the individual needs of your workers

Never assume that one type of protective clothing will suit all workers. When selecting protective clothing you need to consider the individual requirements of your workers, as well as considering what will provide the best protection.

- Does the supplier offer a good enough range of sizes to fit your workforce?
- Does your supplier provide protective clothing to fit various body types?
 Examples include narrower or wider fitting safety boots, shorter or longer trouser lengths, narrower or wider shoulders, or various waist band options.
- Is the clothing suitable for any religious or cultural requirements of your workers? (See WorkSafe guidance: Religious or cultural attire and health and safety).
- Will any of the protective clothing aggravate any medical conditions or allergies of your workers, such as a latex allergy?

Ask your supplier what they can offer to meet the PPE needs of a wide range of body types. They may be able to add to their range.

Engage with your workers when choosing or changing protective clothing

Talk with your workers before selecting or changing protective clothing options. If your workers help choose it, they will be more likely to wear it and there is a greater chance of you getting it right the first time. Workers may need to try out different clothing options before making a final selection.

You need to continue to engage with your workers to make sure that protective clothing remains fit for purpose and is not creating new risks.

For general information on worker engagement, see WorkSafe quick guide: Worker engagement and participation





FIGURE 3:Example of well-fitting protective clothing and poorly fitting protective clothing

Get expert advice

In addition to engaging with your workers, your PPE supplier and a workplace health and safety professional should be able to provide advice on the best protective clothing options for your situation.

Most protective clothing has limitations on the level or type of protection it will provide, for example:

- the level of impact protection for different types of eyewear (low, medium, or high impact)
- clothing or footwear which is only resistant to specific chemicals
- maximum and minimum temperatures thermal clothing will provide protection for
- the maximum level of decibels hearing protection will protect for.

Your supplier or workplace health and safety professional should be able to give you specific advice on the most appropriate type based on the level of protection your workers need.

You can find a list of workplace health and safety professionals on the HAZANZ register or contact the New Zealand Occupational Hygiene Society

Other considerations

Other things to think about when choosing protective clothing include:

Durability

Choose clothing made of materials that will last a reasonable time based on its intended use and working conditions.

Ease of replacement

Make sure that you have easy access to replacement protective clothing when needed. Ideally you should have spares available or be able to source replacements quickly and easily.

New Zealand standards

Standards New Zealand set minimum requirements for protective clothing. You should make sure you select protective clothing that meets AU/NZ Standards. Your supplier should be able to tell you whether a product meets those requirements.

5.0 Information, training and instruction

Workers must be provided with all necessary information, training and instruction on:

- why and when protective clothing is required
- how to wear their protective clothing
- how to look after their protective clothing.

Why and when to use protective clothing

Workers should know the purpose and limitations of all protective clothing they are required to wear.

They should know:

- what the clothing is designed to protect them from
- what it will not provide protection from (so that workers do not accidentally expose themselves to potential harm)
- when they are required to wear it. For example:
 - when performing a specific task
 - for work in a particular area or environment
 - for specific weather, or extreme heat or cold conditions
- that protective clothing is the 'last line of defence' and all other reasonably practicable control measures should be in place first before relying on protective clothing (see WorkSafe quick guide: <u>Identifying</u>, assessing and managing work risks for more information)
- how long it is designed to last before it needs replacing (they should know what signs to look for to know when it needs replacing)
- where they can get replacements or replacement parts from.

How to wear and safely remove protective clothing

Train workers on how to correctly wear protective clothing. This includes:

- making sure they have the right fit
- knowing how to use any adjustment systems (such as buckles and fasteners)
- knowing how to operate any protective features of the clothing (such as operating a battery powered cooling vest)
- how to remove and dispose of protective clothing contaminated by hazardous chemicals or biological substances, to avoid cross-contamination.

Manufacturer's instructions should always be available to workers.

How to look after protective clothing

Give workers information and training on correct storage and maintenance of their protective clothing.

Proper care and maintenance is essential to make sure protective clothing continues to provide protection.



STORAGE

Workers must have access to appropriate storage facilities where:

- it can be kept clean and dry
- it is safe from damage or interference
- it is easily accessible to workers.



CLEANING

PCBUs must provide protective clothing that is clean and hygienic. Cleaning should be carried out according to manufacturer instructions.

Some protective clothing may need re-treating or re-coating after being cleaned (eg re-waterproofing).



DECONTAMINATION

Protective clothing that has been exposed to harmful substances (such as fuel, grease or paint) will need to be decontaminated after use.

Decontamination should be carried out by someone with the right training and knowledge to do it properly and thoroughly.

Note: Clothing contaminated with asbestos requires special treatment. See WorkSafe guidance: Personal protective equipment (PPE) when working with asbestos



INSPECTION

PCBUs must make sure protective clothing is kept in good working order. Protective clothing should be regularly inspected.

It should be checked for:

- signs of soiling
- signs of contamination
- damage (rips, tears etc)
- functioning closures (buttons, zips etc)
- missing accessories (reflective trims, clips etc)
- fabric working as it should (still be waterproof or heat-proof).



MAINTENANCE AND LIFESPAN

Protective clothing with an expiry date, or a required maintenance schedule, should be logged and monitored to make sure it is maintained or disposed of at the right time.

Damaged or defective protective clothing needs to be fixed or replaced as needed.

Protective clothing should never be used after it has expired or reached the end of its usable lifespan.

6.0 Sharing and renting protective clothing

Shared, rented, or single use protective clothing must still be:

- suitable for the nature of the work and any risks associated with that work
- a suitable size and fit
- reasonably comfortable to wear
- compatible with any other PPE
- maintained, repaired and replaced so it continues to protect workers.

Sharing protective clothing

Usually protective clothing is provided for the use of an individual. But if protective clothing is only needed for a short time, it may not be cost effective to issue every worker with their own protective clothing.

Shared protective clothing must be properly cleaned and disinfected before it is used again to make sure there are no health risks to the next person. Shared items still need to fit each user properly to provide full protection.

Renting protective clothing

If you are renting protective clothing you must check yourself that it is working as it should before using.

Single use protective clothing

Any protective clothing that is designed for single use (such as disposable coveralls or disposable gloves) should not be reused.

7.0 More information

WorkSafe guidance

Quick guides

Personal protective equipment (PPE) - protecting your workers' eyes

Respiratory protective equipment - advice for businesses

Identifying, assessing and managing work risks

Fact sheets

Hearing protection

Fact sheet Personal protective equipment - a guide for businesses

Other

Religious or cultural attire and health and safety

Worker engagement and participation

Personal protective equipment to use when working with asbestos

Legislation

Personal protective equipment

Duty to engage with workers

Reasonably practicable

Standards

AS/NZS 4501.1:2008

Australian/New Zealand Standard

Occupational protective clothing

Part 1: Guidelines on the selection, use, care and maintenance of protective clothing

AS/NZS 4501.2:2006

Australian/New Zealand Standard

Occupational protective clothing

Part 1: General requirements

Notes							

Disclaimer

This publication provides general guidance. It is not possible for WorkSafe to address every situation that could occur in every workplace. This means that you will need to think about this guidance and how to apply it to your particular circumstances.

WorkSafe regularly reviews and revises guidance to ensure that it is up-to-date. If you are reading a printed copy of this guidance, please check <u>worksafe.govt.nz</u> to confirm that your copy is the current version.

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