**Hazardous Manual Task Guideline**

# Purpose

The purpose of this guidance sheet is to provide information on how to identify hazardous manual tasks. The characteristics of Hazardous Manual Tasks and the risk management process for manual tasks.

# How to identify hazardous manual tasks

**Consult workers**

Ask workers to identify tasks that

* are difficult to do or complete, appearing harder than they should be
* cause muscle fatigue increasing the risk of injury and reducing work capacity
* involve awkward positions or movements or difficulty in controlling the load, or
* cause discomfort.

**Review available information**

**Look for trends**

**Observe manual tasks**

Look for the following characteristics

repetitive or sustained force

− high or sudden force

− repetitive movement

− sustained and/or awkward posture, or

− exposure to vibration.

Things to look out for include:

− any changes resulting in new manual tasks or a changed environment

− tasks involving tools, machinery or equipment that does not work properly or is difficult to use,

and

− tasks where workers have made improvisations to avoid discomfort, like stacking mats or

flattened cartons to stand on.

# Characteristics of Hazardous Manual Tasks

**Forces**

The term ‘force’ is used here to describe the amount of muscular effort required to perform a movement or task. Forceful muscular exertions overload muscles, tendons, joints, and discs and are associated with most Muscular Skeletal Disorders.

Repetitive force - using force repeatedly over a period of time.

Examples

* lifting and stacking goods onto a pallet

Cleaning

repetitively pressing components with the thumbs or other part of the hand to assemble an item

Sustained force – occurs when force is applied continually over a period of time.

Examples

* Pushing or pulling a trolley
* Holding down a trigger to operate a power tool
* Carrying objects over long distances.

High force – occurs when increased muscle effort is required in response to a task. I may be from the back, arm, or leg muscles or by the hands and fingers. High force occurs in any task that:

* A worker describes as very demanding physically
* A worker needs help to complete because a greater force is required
* Requires a stronger person or two (2) people to complete.

Examples

* Lifting lowering or carrying a heavy object
* Pushing of pulling an object that is hard to move or stop
* Applying uneven fast or jerky forces during lifting, carrying, pushing, or pulling
* Applying sudden or unexpected forces
* Restraining a person or animal
* Using a finger-grip, a pinch-grip, or an open-handed grip to handle a heavy or large load.

Sudden force – jerky or unexpected movements while handling an item or load.

Examples

* Handling a person who suddenly resists or no longer assists during a handling procedure
* Carrying an unbalanced or unstable load.
* Impact recoil from equipment

**Movement**

Repetitive movement – using the same parts of the body to repeat similar movements over a period of time.

Examples

* Painting
* Repeatedly reaching for and assembling components
* Typing and other keyboard tasks

**Posture**

Sustained posture – where part of or the whole body is kept in the same position for a prolonged period.

* Prolonged sitting at a workstation
* Continually standing with mainly on one leg while operating a piece of machinery with a foot pedal.

Awkward posture – where any part of the body is in an uncomfortable or unnatural position

Examples

* Squatting while servicing plant or a vehicle
* Working with arms overhead
* Bending over a desk or table
* Bending the neck or back to the side to see around bulky items pushed on a trolley

**Vibration**

Whole body vibration – occurs when vibration is transmitted through the whole body.

Examples

* Driving a vehicle over rough terrain
* Operating mobile plant such as earth moving machinery.

Hand-arm vibration – occurs when vibration is transferred through a vibrating tool, steering wheel, or controls in heavy machinery to the hand and arm.

Examples

* Using impact wrenches, chainsaws, jackhammers, grinders, drill or vibrating compacting places

**Training**

Training in the type of control measures implemented should be provided during induction into a new job and as part of an on-going manual task risk control program. Training should be provided to:

* workers required to carry out, supervise or manage hazardous manual tasks
* in-house designers, engineers, and officers responsible for the selection and maintenance of plant and/or the design and organisation of the job/task, and
* any health and safety representatives.

The training should include information on:

* manual task risk management, including the characteristics associated with hazardous manual tasks
* specific manual task risks and the measures in place to control them
* how to perform manual tasks safely, including the use of mechanical aids, tools, equipment, and safe work procedures, and
* how to report a problem or maintenance issue.

You should review your training program regularly and when there is change to work processes or systems, plant or equipment, implementation of new control measures, relevant legislation or other issues affecting the way the task is performed.

You should keep records of induction and training given to your workers. The records can include information such as the date of the session, the topics dealt with, the name and signature of the trainer and each of the workers who attended the session.

# The risk management process for manual tasks

|  |  |  |
| --- | --- | --- |
| **IDENTIFY** | **What is the Manual Task?**Using the body to lift, lower, push, pull, carry, or otherwise move, hold, or restrain any person, animal, or thing.**Is the Manual Task Hazardous?** | **CONSULT** |
| Application of force* repetitive
* sustained
* high
* sudden
 | Posture* sustained
* awkward
 | Movement* repetitive
 | Exposure to * vibration
 |
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| **ASSESS** | **What is the risk?*** How often & how long are specific postures, movements or forces performed or held?
* What is the duration of the task?
* Does the task involve high or sudden force?
* Does the task involve vibration?

**What is the source of risk?** | **CONSULT** |
| Work area design & layout | Systems of work | Nature, size, weight & number of persons, animals, or things handled | Work environment |
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| **CONTROL** | * Is the task necessary?
* Can the source of risk (work area layout, environment, etc.) be changed?
* Can mechanical aids be used to perform the task:
* What training is needed to support the control measures?
 | **CONSULT** |
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| **REVIEW** | * When the control measure is no longer effective
* Before a change at the workplace that is likely to give rise to a new or different health & safety risk that the control measure may not effectively control
* If the new hazard or risk is identified
* If the results of consultation indicate that a review is necessary, or
* If a health and safety representative at the workplace requests a review.
 | **CONSULT** |