

# MANUAL HANDLING AND ERGONOMICS

## PROCEDURE <sup>®</sup>

### DOCUMENT SUMMARY/KEY POINTS

- Management of Hazardous Manual Tasks
- Workstation Set up
- All hazardous manual tasks must be risk assessed in consultation with workers using the SCHN WHS Manual Handling risk assessment form.
- All workers in sedentary positions must complete the SCHN Workstation Ergonomic Self-Assessment checklist.
- Safe Work Practices should be developed in consultation with staff for all hazardous manual tasks.
- Staff should be trained and instructed against the risk assessed safe work practice.

#### **Related Information**

- WHS Act 2011:  
<https://legislation.nsw.gov.au/view/html/inforce/current/act-2011-010>
- WHS Regulation 2017:  
<https://legislation.nsw.gov.au/view/html/inforce/current/sl-2017-0404>
- SafeWork NSW Code of Practice for Hazardous Manual Tasks Aug 2019  
[https://www.safework.nsw.gov.au/\\_data/assets/pdf\\_file/0020/50078/Hazardous-manual-tasks-COP.pdf](https://www.safework.nsw.gov.au/_data/assets/pdf_file/0020/50078/Hazardous-manual-tasks-COP.pdf)
- Australian Standard (AS) 3590.1-1990 - Screen-based Workstations – Visual Display Units
- AS 3590.1-1990 - Screen-based Workstations – Workstation Furniture
- Ministry of Health: WHS Better Practice Procedures [PD2018\_013]  
[https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=PD2018\\_013](https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=PD2018_013)
- PD2015\_043 Risk Management – Enterprise – Wide Policy & Framework

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

<b>Approved by:</b>	SCHN Policy, Procedure and Guideline Committee	
<b>Date Effective:</b>	1 <sup>st</sup> September 2022	<b>Review Period:</b> 3 years
<b>Team Leader:</b>	Manager	<b>Area/Dept:</b> Work Health Safety

## CHANGE SUMMARY

- Updated references and source materials.
- Inclusion of relevant definitions.
- Updated responsibilities.
- Additional information of risk assessment manual handling factors.
- Additional information and diagrams for sit/stand workstation set up, often used items and dual monitor screen set up.

## READ ACKNOWLEDGEMENT

- All workers should read and acknowledge this document.

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# TABLE OF CONTENTS

<b>1</b>	<b>Introduction</b> .....	<b>4</b>
<b>2</b>	<b>Definitions</b> .....	<b>4</b>
2.1	What is a hazardous manual task? .....	4
2.2	Ergonomics.....	4
2.3	Musculoskeletal disorder (MSD) .....	4
2.4	Worker.....	4
<b>3</b>	<b>Background Information</b> .....	<b>5</b>
<b>4</b>	<b>Roles and Responsibilities</b> .....	<b>5</b>
4.1	Executive/Service Directors .....	5
4.2	Managers.....	5
4.3	Supervisors/Team Leaders .....	6
4.4	Workers .....	6
<b>5</b>	<b>Documentation</b> .....	<b>7</b>
<b>6</b>	<b>Risk Management of Manual Handling &amp; Ergonomic Hazards</b> .....	<b>7</b>
6.1	Identification of Manual Handling Tasks.....	7
6.2	Risk Assessment of Manual Handling Tasks .....	8
<b>7</b>	<b>Training</b> .....	<b>9</b>
<b>8</b>	<b>Workstation set-up</b> .....	<b>9</b>
	<i>Sit/ Stand Workstations</i> .....	<i>10</i>
8.1	Monitor Screens.....	11
8.2	Seated Postures .....	12
<b>9</b>	<b>Appendix A: Purchasing Specific Ergonomic Equipment</b> .....	<b>14</b>

## 1 Introduction

The Sydney Children's Hospitals Network (SCHN) is committed to providing a safe work environment and the prevention of Musculoskeletal Disorder (MSD) associated with manual handling and ergonomic practices.

SCHN will achieve this by adopting a proactive risk management approach to identify, assess, control and monitor manual handling and ergonomic hazards in accordance with the Work Health Safety Act 2011, WHS Regulation 2017, relevant Codes of Practice and NSW Ministry of Health Policy Directives.

## 2 Definitions

### 2.1 What is a hazardous manual task?

A hazardous manual task, as defined in the Code of Practice for Hazardous Manual Tasks 2019, means a task that requires a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any person, animal or thing involving one or more of the following:

- repetitive or sustained force
- high or sudden force
- repetitive movement
- sustained or awkward posture, or
- exposure to vibration

These factors (known as characteristics of a hazardous manual tasks) may directly stress the body and can lead to injury.

### 2.2 Ergonomics

Is the study of work system or activities in which people, machines, equipment and the environment interact in the work place. The aim of ergonomics is to design work systems, tasks and equipment to suit the user and minimise the risk of injury.

### 2.3 Musculoskeletal disorder (MSD)

Injuries to, or disease of, the musculoskeletal system that can occur suddenly or over time.

### 2.4 Worker

As defined in the NSW Work Health & Safety Act 2011, workers means any person working in a permanent, temporary, casual, termed appointment or honorary capacity within NSW Health such as:

- A SCHN employee
- Agency staff

- Contractor, including VMOs
- Student
- Volunteer

### 3 Background Information

Manual Handling and body stressing injuries are a cause of workplace injury and disease in the health industry yet many manual handling injuries are highly preventable. Injuries arising from manual handling may be acute or chronic and may affect almost any part of the body.

Back injuries such as sprains and strains are the most common manual handling and body stressing injuries, followed by injuries to the shoulders and arms. Injuries can develop over time as a result of an accumulation of small incidents.

Manual handling injuries can incur significant workers compensation costs. There are other considerable, unmeasurable costs which often go unrecognised. These include direct and indirect costs and include labour replacement, lost productivity, property and equipment damage and administration costs.

Additionally, social costs can be incurred by both the health service and the worker. For the injured worker, there can be a loss or disruption of career and disruption to family and social life. The costs to the Network include lower staff morale, poor industrial relations, potential for standards of patient care and financial & organisational inefficiency.

### 4 Roles and Responsibilities

SCHN as a duty holder under the Work Health Safety Regulations 2017, acknowledges that there is an obligation to manage risks to health and safety relating to musculoskeletal disorders associated with hazardous manual tasks.

#### 4.1 Executive/Service Directors

Have a responsibility to exercise due diligence by ensuring adequate resources are in place so that the requirements of this procedure are met.

#### 4.2 Managers

Managers in each department should take steps to make sure that so far as reasonably practicable ensure that;

- Risk assessments are conducted to identify possible hazards and risks associated with hazardous manual handling tasks.
- Risk assessments are completed in consultation with workers in response to reported manual handling work related injuries and/or incidents, departmental or individual requests, or prior to the introduction of new equipment or procedures that may be a potential manual handling risk.

- Appropriate action is taken and implement effective control measures when hazards are reported or incidents occur.
- All workers undertake their Manual Handling HETI e-learning training and practical training as required.
- Workers under their control understand and follow task specific safe work practices.
- The identification of manual handling training needs, and incorporate these into a training plan to ensure that workers under their control are appropriately trained.
- All workers have been provided with adequate equipment, training & instruction and resources for manual handling tasks to be undertaken safely in the work place.

### 4.3 Supervisors/Team Leaders

- Check that all hazardous manual handling tasks have been identified and risk assessments conducted in consultation with relevant workers.
- Ensure that workers have received instruction and training in assessment of risk, ergonomics and manual handling.
- Promote and monitor safe manual handling in accordance with safe work practices.
- Ensure adequate supervision of staff completing manual handling tasks.

### 4.4 Workers

- Do not put yourself or others at risk by your actions or omissions;
- Take reasonable care in performing all manual handling tasks as part of your duties.
- Follow risk assessed task specific safe work practices for the undertaking of all work tasks at all times.
- Comply with the SCHN WHS policies relating to health and safety.
- Notify the Departmental Manager or Supervisor if manual handling hazards are perceived or encountered.
- Ensure that mechanical equipment or manual handling aids are used for all manual handling tasks e.g. trolleys.
- Co-operate with SCHN in the correct use of equipment and follow relevant procedures.
- Undertake the HETI e-learning hazardous manual tasks module at commencement of employment and as required.
- Participate in all practical manual handling training sessions provided in accordance with safe work practices.
- Participate in the risk identification, assessment and control processes as part of consultative process.
- Report potential manual handling hazards or near miss incidents to your Manager or Supervisor/team leader.

## 5 Documentation

- All Managers in consultation with workers must complete documented risk assessment for hazardous manual handling tasks using the [SCHN WHS Manual Handling Risk Assessment](#) form and develop action plans to mitigate or control risk.
- All staff working in sedentary positions must complete the [SCHN Workstation Ergonomic Self-Assessment Checklist](#) in consultation with their Manager to resolve any identified ergonomic issues.
- Managers must ensure that identified manual handling & ergonomic risks are included in the [Department WHS Risk Assessment & SWP Register](#).
- The SafeWork NSW PErforM ([Participative Ergonomics for Manual Tasks](#)) manual task risk assessment can be utilised for assessment of non-clinical tasks such as; cleaning, linen, maintenance or stores tasks. If you require assistance with PErforM manual task risk assessment contact the WHS Coordinator.

## 6 Risk Management of Manual Handling & Ergonomic Hazards

Assessment of manual tasks and ergonomic risk factors should be undertaken in accordance with the SafeWork NSW Code of Practice for Hazardous Manual Tasks 2019.

The Code of Practice does not suggest weight limits for tasks but requires that a manual handling risk assessment be performed and effective risk controls implemented for hazardous manual tasks.

### 6.1 Identification of Manual Handling Tasks

- The process of identifying manual handling risks includes consultation with key stakeholders, Workgroup Health & Safety Representatives and the reviewing of incident reports, hazard reports, observing the task, etc.
- At all stages of the identification, assessment and control processes employees need to be consulted.
- During the design and implementation/purchase of new workplace layout, furniture, work processes and equipment, workers need to be consulted to consider risk preventative strategies.
- At any stage Managers can seek the assistance of the WHS Team to assist with hazardous manual handling risk assessments.
- The identification and consultative processes can be done as part of the monthly hazard inspection checklist or on a needs basis.
- Manager's should address identified hazardous manual handling tasks as a priority based on severity of injury/injury potential and frequency of task performance as part of the assessment process to ensure strategies are implemented to control risk.

## 6.2 Risk Assessment of Manual Handling Tasks

- The risk assessment process considers the degree of risk and the relative contribution of that risk to injury. Risk assessment involves analysing data about the task to determine the level and nature of risk involved, to ensure strategies are implemented to eliminate or control risk.
- Risk Assessments must be completed for all identified hazardous manual handling & ergonomic hazards. These should be completed prior to commencing new tasks, and will be reviewed when conditions or the task changes. Considerations may include the following factors:
  - Movements required to undertake the task.
  - Workplace and workstation layout & condition.
  - Working posture and position.
  - Duration and frequency of the task.
  - Location of loads and distances moved.
  - Weights and forces applied.
  - Characteristics of load and object.
  - Work organisation.
  - Conditions of the workplace and the environmental factors.
  - Skills, experience, age, fitness level, clothing and special needs of workers.
- Refer to the [SCHN WHS Manual Handling Risk Assessment](#) form.
- Once the manual handling risks have been identified and assessed, specific control measures need to be determined to eliminate or reduce the specific risk factors.
- Risk control may be achieved by eliminating the task altogether, redesigning the task to eliminate the risk factors, or redesigning the task to control the risk factors.
- If the task cannot be eliminated other engineering and/or administrative solutions need to be considered such as;
  - Modification of the object to be handled or the task.
  - Redesign of the workplace layout or equipment.
  - Redesign of materials flow or work processes.
  - Reduction of body stressing actions such as bending, twisting, reaching, lifting, carrying.
  - Providing mechanical assistance for the task e.g. trolleys
  - Specific training for heavy tasks if other methods of control are not possible e.g. team lifting.
- Safe work practices should be developed for the management of hazardous manual tasks.
- Relevant training and instruction associated with the specific controls to be used must be provided to relevant workers.



- Musculoskeletal injuries will be appropriately investigated with a view to identify root causes and implement control measure to eliminate or control the hazard.

To reduce the risk of injury associated with manual tasks all of the potential sources of risk that may need to be controlled will be considered. For example:

- Assessing the task and looking for ways of reducing the amount of force that has to be applied by the body.
- Assessing the load to see if it can be adjusted to make it safer to handle.
- Assessing the environment where the task is performed to identify and remove other risks.
- Assessing the physical capabilities of the person conducting the task.
- Identifying where manual handling and ergonomic hazards require relevant safe work practices to be developed.
- Assessing the effectiveness of existing controls and introducing additional controls where a gap is identified.
- Clearly defining tasks which can be undertaken in certain circumstances, or which should definitely not be undertaken e.g. when working alone or when training has not been undertaken.
- To reduce the risk of injury associated with Office Ergonomic hazards complete the SCHN Workstation Ergonomic self-assessment checklist in consultation with the Manager to address identified ergonomic issues and as required consult with the WHS Coordinator.

## 7 Training

- The on-line HETI Hazardous Manual Tasks training is mandatory training – Course Code: 39962652.
- Non-clinical Manual Handling and Ergonomics Training can be arranged by contacting the WHS Team.
- Task specific training must be completed for hazardous manual handling tasks with relevant workers.

## 8 Workstation set-up

All screen based workstations whether seated or standing must be ergonomically self-assessed and adjusted using an ergonomic checklist.

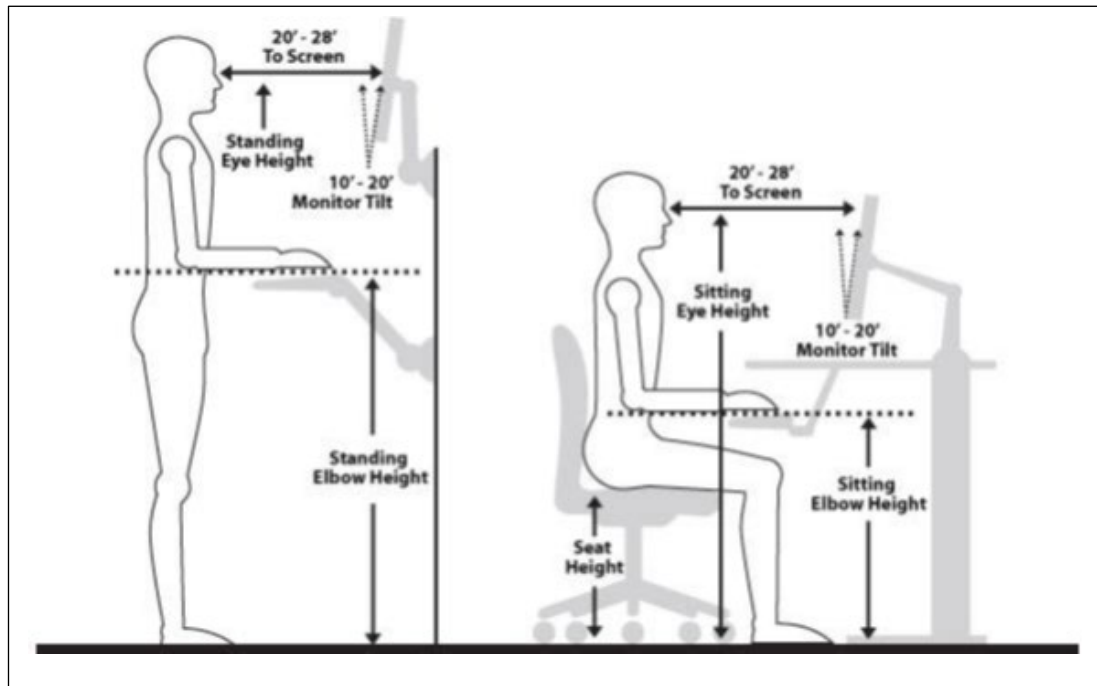
All office chairs purchased should meet Australian Standards specifically AS/NZS 4438:1997 “Height Adjustable Swivel Chairs”; this standard requires that all chairs be:

- Adjustable in height to accommodate access to the work surface.

- Have a separate height adjustable backrest to provide lumbar support.
- Have a seat pad deep enough to provide full upper leg support without the front edge of the seat against the back of knees, providing a 2-3 finger gap.
- A five or six-star base (for stability).
- A curved seat pad, 'waterfall' front.
- A comfortable, well-padded foam seat pad.
- Chairs that are worn or broken should be repaired or discarded and replaced.
- Arm rests on task chairs are considered for individuals with mobility issues or health conditions, consult with the WHS Coordinator if arm rests are required.
- Poor seated postures and prolonged seated postures are known to lead to musculoskeletal disorders.
- 'No one task chair fits all' – Consideration should be given to the size, shape and the height of staff before purchasing chairs. Tall people, larger frame and petite people require different seating.
- Ensure castors are suitable for the floor surface and task e.g., resistant castor or brake castor for vinyl floor surfaces.
- A footrest and document holder should be provided by the Manager based on ergonomic need assessed by completing the SCHN Workstation Ergonomic Self-Assessment checklist.
- Task chairs for use at sit/stand workstations or benches should be suitable for the height of the work surface, consult with the WHS Coordinator if you require further information.

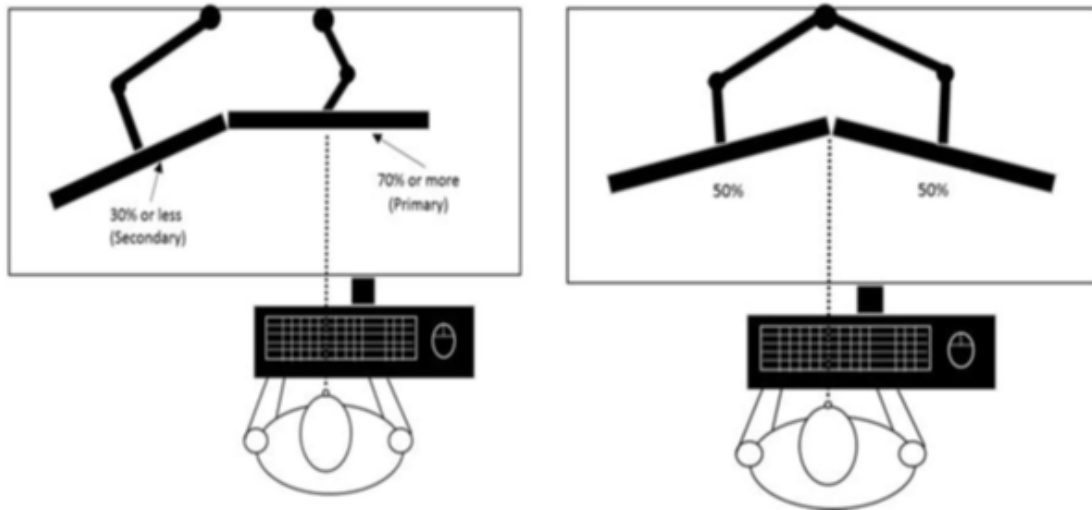
### ***Sit/ Stand Workstations***

- Staff should be aware that prolonged seated postures should be broken up by stretch exercises, work rotation and taking breaks.
- Sit / stand workstations are recommended where prolonged keying is necessary and unable to be altered as indicated above.
- Sit/stand workstations should be considered for areas of hot desks to provide for differences in workers heights and tasks completed, which may be in seated or standing position.
- Sit/Stand workstations may be considered for injured workers or other non-work related health conditions in consultation with WHS Team and/or Rehabilitation Provider.
- Setting up a sit/stand workstation is similar to ergonomics at a seated computer workstation (see below diagram).
- It is recommended to start standing for short periods and then gradually build up to a longer standing period within tolerance up to an hour.
- See purchase of Specific Ergonomic Equipment – Appendix A



## 8.1 Monitor Screens

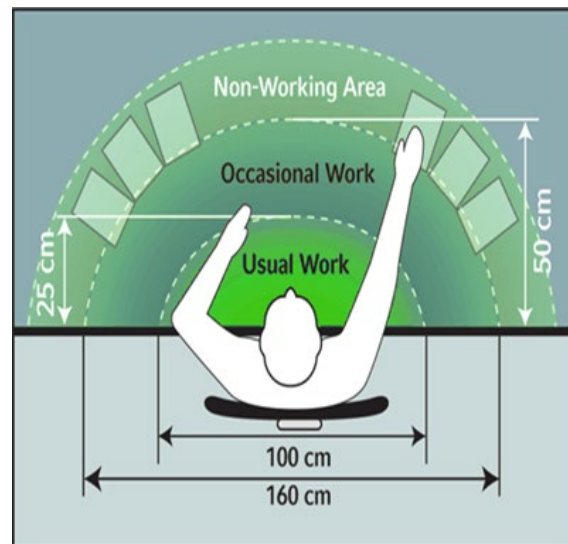
- The proper ergonomic set up of monitor screens is important to prevent pain and discomfort in neck, shoulder or back. Ensure the work surface is of an appropriate size to accommodate monitor screen(s) and other ergonomic equipment.
- All monitor screens should be positioned an arm's length from the operator with the top of the screen at eye level or lower.
- If using two monitor screens, the screens should be placed in a position depending on use to minimise neck deviation as per below diagram. It is preferable that the monitor screens are the same size, if not the same size they should be positioned at the same level. They should have comparable levels of brightness, contrast and font size.
- If both monitor screens are used an equal amount of time set the monitor screens next to each other in a slight arc or 'V' shape (the 'N' key on the keyboard should be positioned in the centre of the two monitor screens).
- If one monitor screen is used as the primary monitor, position it in front of the user and place the secondary monitor screen (viewed intermittently) to the left or right at about 30 degree angle to the primary monitor screen.
- If one monitor screen is used for a sustained period the user should temporarily position themselves (body/chair/keyboard) directly in front of that monitor.
- If using multiple screens, screens should be placed in front of the operator in a curve, one monitor high only.



- Where large **numbers of screens** are required an assessment by the WHS Coordinator may be required to improve work postures and to ensure that additional risks are not introduced.

## 8.2 Seated Postures

- All equipment to be accessed frequently at the workstation should be moved within easy reach to avoid the need for overreaching as per the below diagram.



- Extended periods of seated postures can lead to injury. It is therefore recommended that seated tasks should be broken up during the day with adequate rest breaks.
- Staff should make postural changes at least every 20-30 mins.
- Gentle stretches should be undertaken within staffs own limitations during the shift as per the office exercises information available on the SCHN WHS Intranet.
- All screen based workstations whether seated or standing must be ergonomically self-assessed and adjusted using an ergonomic checklist.

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## 9 Appendix A: Purchasing Specific Ergonomic Equipment

### Definitions:

**Eligible member of Staff:** is a potential user of ergonomic equipment who has been identified by a doctor or treating physician to require ergonomic equipment due to health or injury due to risk associated with the current work equipment.

**Responsible Manager:** is a line manager, with control over a cost-centre, who agrees to a referral of a request from an eligible member of staff for review of purchase of specific ergonomic equipment.

**Specific Ergonomic Equipment** may include (but is not limited to) Sit/Stand Workstations, Ergonomic Mouse or Keyboard, Chairs with specific Ergonomic requirements.

### Responsibilities:

#### 1. Eligible member of Staff to:

- Determine whether they are eligible
- Obtain a medical certificate to identify reasons they require ergonomic equipment
- Liaise with responsible manager
- Complete the SCHN Workstation Ergonomic Self-Assessment Checklist in consultation with their Manager

#### 2. Responsible Manager to:

- Discuss the request with the eligible member of staff and determine whether they agree the applicant is at risk and has a demonstrated need
- Refer any non-work related injuries to Work Force Services.
- Complete an the SCHN Workstation Ergonomic Self-Assessment Checklist with eligible member of staff
- Provide the WHS Coordinator with medical certificate and Ergonomic Workstation Checklist and request review
- Determine whether funds available in cost centre for equipment purchase
- Ensure procurement is completed with the MoH Goods and Services Procurement Policy.
- Ensure that if installation is required maintenance is consulted as a minor works request may be required to modify fixtures or fittings.

#### 3. WHS Coordinator to:

- Assess request for ergonomic equipment and provide advice regarding appropriate ergonomic equipment or other work adjustments.
- Provide advice once equipment is received or installed.