

Manual Tasks Risk Assessment

WHS-PRO-TEM-002c



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Date of assessment: 17th October 2019

Name of assessor(s): Assessment team members names

Position(s): Position titles

Step 1: What is the manual task?

Name of task:	Accessing chest freezer for the retrieval or placement of research specimens in XYZ laboratory.
Location where task occurs:	XYZ laboratory, Building 123, JCU Smithfield Campus
Who performs the task:	Research Team
General description:	Staff are required to retrieve or replace multiple specimens of various size, shape and weight, into or out of chest freezers.
Postures:	Forward lean over chest freezer edge, combined with reaching down inside freezer.
Forceful / muscular exertions:	<ul style="list-style-type: none"> Lifting and lowering an average of 30kg (single person) and up to 60kg (two person); Tight gripping; Pulling / holding samples to one side within freezer to access specimens beneath.
Repetition and duration:	<ul style="list-style-type: none"> Retrieval of 6-7 samples within 30 minutes. This involves frequent moving and lifting numerous other specimens in the chest freezer to access the particular specimens that are required.
Tools or equipment used:	<ul style="list-style-type: none"> Hydraulic trolleys, additional fixed height trolley and wheelbarrows used to transport specimens between chest freezers and required locations.
Work / task organisation and environment:	<ul style="list-style-type: none"> Multiple chest freezers are stored against the wall of the room, with other items stored in front e.g. trolleys, cages, boxes, wheelbarrows;

Step 2: Is the manual task hazardous? (Hazardous manual tasks can result in a sprain or strain)

Question 1 – Does the task involve any of the following risk factors? <input type="checkbox"/> Repetitive movement <input checked="" type="checkbox"/> Sustained or awkward postures (Refer to figure 1) <input type="checkbox"/> Repetitive or sustained forces	REPETITION = >2 times / minute SUSTAINED = Held for > 30 seconds at a time	If yes, to both Questions 1 and 2 = HAZARDOUS				
Question 2 – Does the task involve long duration? Is the task done: <input type="checkbox"/> for more than a total of two hours over a whole shift <input checked="" type="checkbox"/> continuously for more than 30 minutes at a time?	DURATION = Continuously > 30 min; OR > total of 2hrs over shift					
Question 3 - Does the task involve sudden or near maximal force? <input checked="" type="checkbox"/> Yes (4-5) <input type="checkbox"/> No (1-3)		If yes to Question 3 = HAZARDOUS				
<table border="1" style="width:100%; text-align:center;"> <tr> <td style="width:25%;">1 No effort</td> <td style="width:25%;">2</td> <td style="width:25%;">3 Moderate Force</td> <td style="width:25%; background-color:red; color:white; border: 1px solid black;">4</td> </tr> </table>	1 No effort		2	3 Moderate Force	4	<table border="1" style="width:100%; text-align:center;"> <tr> <td style="width:50%; background-color:red; color:white;">5 Maximum Force</td> </tr> </table>
1 No effort	2	3 Moderate Force	4			
5 Maximum Force						

Question 4 – Does the task involve vibration?					If yes to Question 4 = HAZARDOUS
<input type="checkbox"/> Yes (4-5) or if residual sensation remains after completing the task <input checked="" type="checkbox"/> No (1-3)					
1 None	2	3 Moderate	4	5 Extreme	

Step 3: What is the source of the risk?
 (These are the things that are causing the risk. They are also the things that may be changed in order to eliminate or minimise the risk).

Work area design and layout: *work space available; design of workstation, furniture and equipment*

Chest Freezer:

- Height of front edge: approximately 1metre above ground height*
- Base inside freezer: approximately 16cm above ground height*
- Specimens within freezers are piled on top of one another in no particular order, to maximise storage space*
- Specimens may expand slightly when frozen which may restrict an individual's ability to remove the specimen from a chest freezer.*

The chest freezer design requires the individual to lean forward at the torso, and reach down into the freezer. The loss of neutral spinal curvature occurs during this position, increasing compressive forces through the spine and intervertebral discs. Upon lifting / lowering a load this compressive force is amplified, resulting in an increased risk of musculoskeletal injury.

The nature, size, weight or number of things handled in performing the manual task:

- Specimens handled throughout this task vary in size, weight and shape;*
- Specimens are stored in bags which may become slippery when gripping;*
- Specimens may be awkwardly shaped;*
- The specimens that are required for retrieval may be positioned underneath multiple other specimens requiring additional lifting, grasping, pulling etc;*
- Retrieval of up to 6-7 specimens in 30 minutes, once per week;*
- Average weight of specimens handled in this task is approximately 30kg;*
- Maximum weight of specimens handled in this task is approximately 60kg.*

Systems of work (e.g. *pace and flow of work; resources available; maintenance*):

- Tasks can be self-paced however the general timeframe available for this task is around 30 minutes;*
- A second staff member is available to assist.*

The environment in which the manual task is performed (e.g. *flooring; obstructions; lighting; hot/cold/humid environments*):

- Concrete flooring, air-conditioned room;*
- Adequate lighting;*
- Access to chest freezers is obstructed by other items including trolleys, cages, wheelbarrows, requiring additional manual handling at the time of this task.*

Step 4: How do I control the risk? (Consider the hierarchy of control. A range of controls may be required).

Can the task be eliminated?

No. The task is required for storage and retrieval of specimens for research purposes.

Can you change what is causing the risk (the source)? (E.g. *change the work area; alter the size of loads; use mechanical aids; manage environmental conditions; use adjustable equipment; implement preventative maintenance program.*)

Yes. The source of the risk can be substituted with an improved freezer design i.e. walk-in freezer

What training is needed to support the control measures? (*Training needs to be task specific. Training in lifting techniques is not effective as the sole or primary means to control the risk of sprains/strains.*)

Training regarding workflow design, specimen storage locations would be of benefit in a walk-in freezer e.g. placing smaller, lighter bodies on higher shelves.

Implement controls

Person(s) responsible for approving controls: John Doe

Person(s) responsible for putting controls in place: Jane Doe

By when: 25th December 2020

Step 5: Review the controls

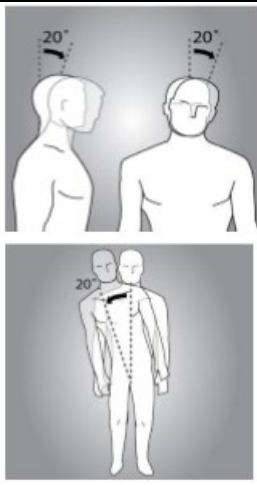
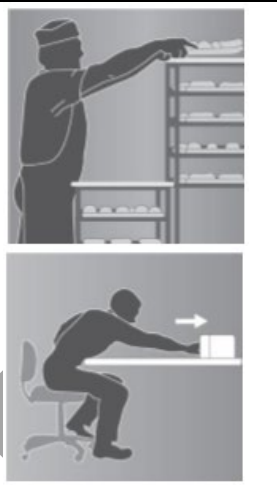


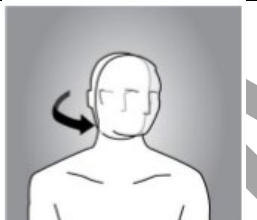
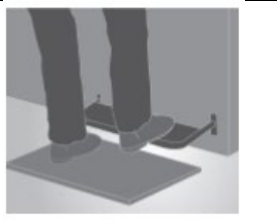


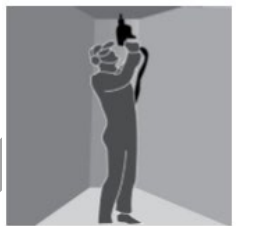
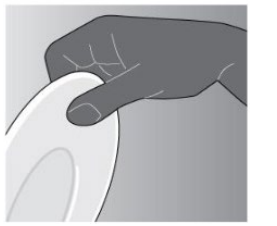
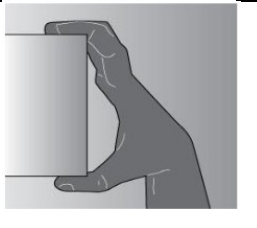
Evaluated on: _____ Assessor: _____

- Consultation undertaken with all workers?
- Have the controls implemented reduced the risks?
- Have any other risks been created by the controls?
- Can further controls be implemented to minimise the risk?

EXAMPLE

Figure 1. Postures and movements that pose a risk if they are repetitive or sustained and are performed for a long duration (i.e. continuously for 30 minutes or more than a total of 2 hours over a shift)

Can you modify the work area / task / the position of your body to eliminate this movement / posture?

<p>Bending the back or head forwards or sideways more than 20 degrees</p>		<p>Reaching forward or sideways more than 30cm from the body</p>	
<p>Bending the back or head backwards more than 5 degrees or looking up</p>		<p>Reaching behind the body</p>	
<p>Twisting the back or neck more than 20 degrees</p>		<p>Standing with most of the body's weight on one leg</p>	
<p><i>Are you able to turn your body to face your task instead of reaching around?</i></p>		<p>Very fast movements</p>	
<p>Working with one or both hands above shoulder height</p>		<p>Twisting, turning, grabbing, picking or wringing actions with the fingers, hands or arms that includes excessive bending of the wrist</p>	
<p>Working with the fingers close together or wide apart</p>		<p>Squatting, kneeling, crawling, lying, semi-lying or jumping</p>	