|  |
| --- |
| Injury hotspots: Wood manufacturing |
| Target core skillsThis task covers ASCF:* Reading and Writing at Level 2
* Reading and Writing at Level 3
* some Numeracy at Levels 1, 2 and 3 – to confirm the numeracy ratings, the assessor would need to give the candidate another numeracy task.
 |
| Target audienceThis task has been developed for the wood manufacturing industry. It can be customised for other industries, using information from [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au) (then search for ‘injury hotspots’). Check the site for other contexts that may be relevant to your candidates. |
| Content coverageThis task assumes some familiarity with the industry. The task includes reading and writing activities that ask the candidate to interpret and summarise information. Demonstration of understanding will be enhanced by the candidate’s ability to draw on prior knowledge and contextualise the informative text. This task also requires the candidate to interpret a diagrammatic text and to translate this information into chart and graph form. |
| Instructions to assessorThis task requires the candidate to:* read and interpret graphic information
* complete numerical tasks and write answers to questions based on information provided
* read a case study and write answers to questions based on information in the case study
* read a case study and respond by writing a formal letter.
 |
| ACSF mapping |
| **Question** | **ACSF skill level indicator** | **Domains of Communication** |
| 1 | 2.05 2.06 | Workplace and employment and/orEducation and training |
| 2 | 2.04 1.09 |
| 3 | 3.09 3.10 3.11 |
| 4  | 2.05 2.06 or 3.05 3.06 |
| 5a | 2.03 2.04 2.05 2.06 or 3.03 3.04 3.05 3.06 |
| 5b | 2.04 |
| 5c | 3.04 |
| 5d | 2.05 2.06 or 3.05 3.06 |
| 6 | 3.05 3.06 |

# Injury hotspots: Wood manufacturing



From <http://www.worksafe.vic.gov.au/safety-and-prevention/injury-hotspots-statistics-and-solutions>.

The most common injuries experienced by workers in the wood manufacturing industry.

# Injury hotspots

1. According to this diagram, the most common injury experienced by workers in the wood manufacturing industry is to the hands and fingers. Why do you think this is the case?

1. Use the information in the diagram on the previous page to complete the % column in the following table (Table 1).

|  |  |  |  |
| --- | --- | --- | --- |
| **Body part** | **% of total**  | **Injury type** | **Hazards** |
| Hands and fingers |  | Lacerations, open wounds or amputations | Entanglement, guarding, kickback |
| Back |  | Muscle stress, muscle strain | Lifting and carrying |
| Shoulder |  | Muscle and tendon sprains and strains | Lifting and carrying, kickbacks, repetition of tasks |
| Knee |  | Muscle and tendon sprains and strains | Slips, trips and falls, repetition of tasks |
| Wrist |  | Muscle and tendon sprains and strains, lacerations, open wounds | Entanglement, guarding, lifting and carrying, kickback |
| Abdominal region |  | Hernia | Lifting and carrying |
| Ear |  | Hearing loss | Noise |
| Arm |  | Muscle and tendon sprains and strains | Lifting and carrying |

Table 1

1. Use the grid below to sketch a bar graph to represent the information in the % column of Table 1.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Percentage of total |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

Body part

1. How might the following injuries have occurred?
2. Back muscle and tendon sprains and strains

1. Hearing loss

1. Read the following article and then answer the questions below.

|  |
| --- |
| ***Sprains and strains*** *Each year, thousands of Australians suffer an injury as a result of sprains and strains. In Queensland in 2004-12, sprains and strains counted for approximately 50-60% of injuries across five industry areas. Most sprain or stain injuries are caused by manual tasks such as lifting or carrying loads, working in fixed positions or using heavily vibrating tools. Such injuries can be debilitating to workers and disruptive to business. In addition to the cost to the business, there are financial, physical and emotional costs for the injured worker and their family. A workplace injury can affect a worker’s wellbeing by restricting their usual home and leisure activities. A basic understanding of what causes a sprain or strain can help prevent these incidents occurring.**Sprains and strains are damage to the soft tissue in the body, which often doesn’t recover. It includes damage to muscles, ligaments, tendons, spinal discs, nerves, arteries and veins and can happen in any workplace. Common types of sprains and strains injury include:** *back injuries including pulled back muscles and ruptured discs*
* *squashed nerves causing severe pain (e.g. carpal tunnel syndrome in the wrist or sciatic leg pain from the back)*
* *ligament sprains in the upper body*
* *shoulder muscle sprains and dislocations*
* *abdominal hernias*
* *tendon injuries to the hands, forearms and elbows such as tennis elbow*
* *ankle sprains and strains.*

*There are various factors that contribute to sprains and strains. In the wood products industry, they usually occur from:** *excessive hand tool use*
* *moving and handling large, awkward materials*
* *falls from truck, plant or equipment*
* *securing loads*
* *process line work activities*
* *contaminants on factory floors such as oil, water and dust which can result in slips, trips and falls.*

*There are four major risk factors that contribute to sprains and strains injuries from manual tasks. These include the following.****Forceful exertions*** *put high levels of stress on muscles and body tissues. An example is lifting a very heavy or awkward load from the ground (e.g. lifting a person or a 40 kilogram log).****Awkward and static postures*** *lead to workers having to use more muscular effort to do a job (e.g. awkward postures such as a bent back or raised arm, wrist and head) or keeping the body in the same position for extended periods of time (static postures such as the back bent while grading timber).****Repetition and duration*** *involves making the same type of movements over and over (e.g. frequent lifting or working on a production line) or holding a position for a long time increases the risk of injury.****Vibration*** *through the whole body such as driving a truck which can damage the back or hand tool use which contribute to disorders of the wrist and arm.**Assessing the risk includes analysing the task to find out what risk factors are causing the problem.* |

1. In your own words explain the main message of the article *Sprains and strains*.

1. Name at least three types of injuries that workers can suffer from a sprain or strain.

1. In your own words explain the following words and phrases:
2. debilitating to workers

1. excessive hand tool use

1. static posture

1. (i) What are some ways that a workplace can limit forceful exertions to prevent strain and sprain injuries?

(ii) What are some ways that a workplace can limit vibrations in machinery to prevent strain and sprain injuries?

1. Read through the following case study and answer the questions.

|  |
| --- |
| ***Case Study****The following incident occurred in the loading bay at a Miller’s Mill, located at 27 Midland Highway, Shepparton.*Towards the end of a shift at a mill in Shepparton, the loading equipment was not working and an order had to be filled urgently for a well-respected customer. To make sure the order was filled that day, a worker manually lifted several planks of timber weighing about 40kg, from the ground onto the back of a truck. As a result of lifting such a heavy weight, the worker sustained an injury to his back, which once investigated, was found to be a severe disc bulge.  |

Write a formal letter to the management of the company suggesting changes that could prevent further injuries from lifting loads onto trucks.