




**atnz** 

# **Toolbox Talk**

October 2022

## **Hand and finger injuries**



Our hands are one of our most intricate body parts. The tendons, bones, tissue, and nerves combine perfectly to allow us to do a wide variety of complicated tasks.

We use our hands for almost everything at work, and they are commonly injured on the job. A serious injury to your fingers or hands can have a massive impact on not just your job, but your overall quality of life too. Simple things we normally do – opening doors, using a fork, or tying shoelaces – become extremely difficult when our hands are out of action.

Hand injuries are also often tricky to heal because of the complexity of the hand's makeup. Once injured, an injured hand may also not work as it used to because of loss of motion, dexterity and grip. This makes it critical we keep them out of harm's way.

Gloves are the most common PPE in the workplace, but hand injuries are still the second leading type of on the job injury. Over 25 per cent of all industrial injuries involve the hand, wrist and fingers!

## Typical injuries include

- Puncture wounds
- Lacerations
- Broken fingers
- Contusions
- Thermal burns
- Chemical burns

## Three common types of hand and finger injuries



1. **Cuts/lacerations** are the most common type of hand injuries, due to sharp objects or tools and/or inadequate gloves. Kevlar gloves effectively protect hands against cutting or slicing motions, but a straight stab can still easily penetrate them. Take extra care when using any tool that can easily penetrate the skin.



2. **Crush injuries** usually happen when we place our hands in the line of fire between two objects or in a rotating piece of equipment. Pinch points on equipment or tools also commonly lead to crush injuries.



3. **Fractures** occur when there is a sudden blow to the bones in the fingers or hands. These often happen if we accidentally hit our hands or fingers with a non-powered tool (like a hammer) while holding an object, or using a drill that grabs and spins unexpectedly.



# Ten rules to protect your ten fingers



1. **Beware of pinch points.** Train yourself to recognise pinch points and avoid placing your hands and fingers in such hazardous spots.
2. **Expect the expected.** When using wrenches and other hand tools, with which you expect resistance, anticipate the tool might slip, or the object you're applying pressure to could suddenly give way.
3. **Inspect your tools.** Check they're in good condition and safe to use.
4. **Don't work on moving equipment.** If you can stop the equipment, do it! Working on moving equipment presents a big threat to hands and fingers.
5. **Always replace machine guards** following repairs that required their temporary removal. The presence of machine guards is an essential factor in keeping hands and fingers out of dangerous areas.
6. **Be mindful of equipment that starts automatically.** Never work on these machines without first eliminating the possibility of an automatic startup, e.g. lock out tag out.
7. **De-energise electrical equipment before working on it.** Flash burns caused by electrical equipment shorting out are threats to hands and fingers.
8. **Be mindful when closing doors.** Keep hands and fingers clear. Also, watch for children's fingers in the family car.
9. **Avoid touching hot equipment.** Every hot line or hot piece of equipment is a potential source of painful injury to anything meeting it.
10. **If the job requires gloves, use them!** They offer protection from sharp objects, wood and metal fragments, acids, electrical burns, chemicals, and more.

## ATNZ hand and finger stats

January–December 2020

- 72 apprentices were treated for a hand or finger injury
- 23 lost time cases and 32 first aid cases due to hand injuries
- **Top 3** hand and finger injuries
  - Cuts
  - Crush
  - Burns



## Something to think about

- What are some of the biggest hazards to your hands onsite?
- Next time you are doing a simple task at home (getting ready in the morning, brushing your teeth or making dinner), try doing it with one or two fewer fingers. It sounds silly, but it'll help you understand how hard it would be to complete tasks if your hand was injured.



## Remember **STAAR** = Good Work Practices **Stop Think Assess Act Review**

### Health and safety reps

Your Health and Safety (H&S) Reps are here to represent and assist you (apprentices) in all health and safety matters. If you would like to talk to an H&S Rep or have any H&S issues, feel free to contact any one of them. They will be more than happy to help.

#### Auckland

Alan Bates 022 015 5671

#### Waikato

Elizabeth Humberstone 027 806 8879

#### ATNZ Staff

Kylie Mason 027 431 5877

Jo Brierley 027 438 8195

Alan Lockett 027 239 6197

### August/September health and safety summary

Remember to keep reporting accidents and incidents so we can all learn from them.

It's great to see near misses being reported and we encourage you to keep reporting these so we can prevent an actual injury happening.

- S** Stop
- T** Think
- A** Assess
- A** Act
- R** Review

Lost time injuries	2
First aid injuries	8
No injury	1
Medical treatment injuries	1
Near miss	2
Non work injuries	0
Restricted work injuries	0
Pain/discomfort	0
<b>Total Incidents</b>	<b>14</b>



# Incidents

<b>Near miss</b>	Steel fell off rollers
<b>Nature of injury</b>	Non-powered hand tools/equipment ( e.g. stanley knife)
<b>Incident</b>	Apprentice accidentally pushed reverse on the rollers when starting to roll a sheet of steel and it fell out of the rollers onto the floor
<b>Immediate actions taken</b>	No action taken
<b>Corrective actions</b>	Follow STAAR process. Communication to all staff to be aware of surroundings when working and take time completing tasks

<b>Lost time injury</b>	Fracture to finger
<b>Nature of injury</b>	Non-powered hand tools/equipment ( e.g. stanley knife)
<b>Incident</b>	Apprentice was setting up to weld four bundles of metal together to be cut down on the bandsaw. The apprentice was lining up the furthest side of the bundle. Due to the length of the metal they used a sledge hammer, which was the fastest option, because of the increased distance from the apprentice. When they swung the head of the sledge hammer, it didn't make a clean connection to the metal causing it to slip driving their hand into the metal and wedging their finger between the metal and wooden handle of the sledge hammer, followed by their body weight and the momentum of the swing
<b>Immediate actions taken</b>	First aid applied and went to doctor for further assessment with x-ray to determine a fracture
<b>Corrective actions</b>	Follow STAAR process. Communication to all staff to be aware and take time completing tasks. Consider changing to a better position while doing task



# Incidents

<b>First aid injury</b>	Burn to hand
<b>Nature of injury</b>	Powered hand tools (welder)
<b>Incident</b>	The apprentice was welding a cylinder whilst standing in a horizontal position. They felt their welding glove get hot midway through weld but decided to continue. After finishing the weld they took off the glove and noticed burn on their hand
<b>Immediate actions taken</b>	Ran hand under water for approx 10mins, finished shift. Went to doctors in the evening after blister become enlarged, changed colour and started leaking
<b>Corrective actions</b>	Communicated to apprentice to apply STAAR to their work practices and if they feel any sort of pain or heat to stop what they are doing and check for damage and seek first aid straight away

<b>First aid injury</b>	Burn to arm
<b>Nature of injury</b>	Powered hand tools (welder)
<b>Incident</b>	Apprentice was welding overhead welds and a welding spark/ molten went down their overall sleeve causing a burn to their arm. Apprentice was wearing PPE at the time of incident
<b>Immediate actions taken</b>	Stopped welding and removed molten and carried on. First aid applied
<b>Corrective actions</b>	Follow STAAR process. Communication to all staff to be aware and take time completing tasks. Consider wearing a welding jacket

<b>Lost time injury</b>	Cut to hand
<b>Nature of injury</b>	Manual handling
<b>Immediate actions taken</b>	First aid applied and went to doctor for further assessment
<b>Incident</b>	Apprentice was lifting a piece of box section that was cut at a 45 degree angle and it slipped out of their hand causing a cut to their hand resulting in stitches
<b>Corrective actions</b>	Follow STAAR process. Communication to all staff to be aware and take time completing tasks. Ensure correct PPE is worn

# Incidents

<b>First aid injury</b>	Puncture to finger
<b>Nature of injury</b>	Hitting object with part of the body
<b>Incident</b>	Apprentice was deburring stainless steel and was not wearing the correct PPE and stabbed themselves with the corner of the workpiece
<b>Immediate actions taken</b>	First aid applied
<b>Corrective actions</b>	Follow STAAR process. Communication to all staff to be aware and take time completing tasks. Ensure correct PPE is worn

<b>First aid injury</b>	Back sprain
<b>Nature of injury</b>	Manual handling
<b>Incident</b>	Apprentice was lifting a box up a ladder and twisted back while ascending the ladder
<b>Immediate actions taken</b>	No action taken
<b>Corrective actions</b>	Follow STAAR process. Communication to all staff to be aware and take time completing tasks. Consider changing to a better position while doing task

<b>First aid injury</b>	Cut to thumb
<b>Nature of injury</b>	Other and multiple mechanisms of injury
<b>Incident</b>	Apprentice was cutting a pipe using a pipe cutter and as they came around with the pipe cutter it broke through and the pipe jumped slightly out of the pipe cutter. The sharp edge caught the side of the apprentices right thumb causing a small graze and skin removal
<b>Immediate actions taken</b>	First aid applied
<b>Corrective actions</b>	Follow STAAR process. Communication to all staff to be aware and take time completing tasks

# Incidents

<b>Medical treatment injury</b>	Knee sprain
<b>Nature of injury</b>	No specific cause
<b>Incident</b>	Apprentice was carrying tools back to the van when their knee clicked and wouldn't click back into place preventing them from walking
<b>Immediate actions taken</b>	Went to doctor for assessment
<b>Corrective actions</b>	Due to no specific event taking place to cause the injury we are unable to determine the direct and root cause of the injury

<b>Property damage</b>	Put foot through roof
<b>Nature of injury</b>	No injury
<b>Incident</b>	Apprentice was under pressure to complete job which led to a decision to take a shortcut which resulted in the apprentice putting their foot through the roof
<b>Immediate actions taken</b>	
<b>Corrective actions</b>	Follow STAAR process. Communication to all staff to be aware and take time completing tasks

<b>First aid injury</b>	Burn to eye – Arc eye
<b>Nature of injury</b>	Contact or exposure to heat and cold
<b>Incident</b>	Apprentice had finished welding (they were wearing their auto darkening welding helmet and correct PPE at the time) and started to notice their eyes were feeling sore. Unsure why this occurred, however, it is possible the auto darkening of the helmet was incorrectly set
<b>Immediate actions taken</b>	Went to doctor for further assessment and supervisor adjusted the settings on the helmet
<b>Corrective actions</b>	Host company to provide further training and discussions around how to set up welding helmets correctly



# Incidents

<b>First aid injury</b>	Cut to thumb
<b>Nature of injury</b>	Non-powered hand tools/equipment ( e.g. stanley knife)
<b>Incident</b>	Apprentice was trying to connect a conveyor using a screwdriver as leverage with their right hand to pull the conveyor together. The screwdriver slipped stabbing their left thumb that was holding the other half of the conveyor
<b>Immediate actions taken</b>	First aid applied
<b>Corrective actions</b>	Follow STAAR process. Communication to all staff to be aware and take time completing tasks. Consider changing to a better position and using the correct tools while doing task

<b>First aid injury</b>	Swelling to knee
<b>Nature of injury</b>	Being hit by moving objects
<b>Incident</b>	The apprentice was buffing "lock-stiffener" components on a steel workbench, using a wire buff attached to an angle grinder. The wire buff slipped off the back edge of the component, causing the component to fly forward towards the apprentice and then fell off the edge of the steel workbench, hitting their right knee as it fell to the floor
<b>Immediate actions taken</b>	First aid applied and went to doctor for further assessment
<b>Corrective actions</b>	Discussed with apprentice, when buffing components, make sure the component is either clamped to the workbench, or place metal component on a piece of wood (which will prevent slippage). Follow the STAAR process with all tasks

<b>Near miss</b>	Potential for injury by being hit by moving object
<b>Nature of injury</b>	Machinery
<b>Incident</b>	Apprentice was using an aluminum drop saw. As they were using the saw it grabbed onto the work causing the work to smash into the back stop of the saw
<b>Immediate actions taken</b>	Correct practices were implemented along with the use of lubricant
<b>Corrective actions</b>	Follow STAAR process. Ensure correct practices and procedures are followed