HEALTH AND SAFETY ADVICE FOR CARPENTERS & JOINERS

CITB constructionskills
NORTHERN IRELAND

Contents

INTRODUCTION

This booklet is part of a range that have been produced by CITB-ConstructionSkills NI to provide advice and guidance on Health and Safety issues relating to trade persons working in the Construction Industry such as Joiners, Bricklayers, Plasterers, and Painters, with the aim of helping to eliminate and reduce the risk of, accidents, injury and ill-health.

The booklets are in an easy to use pocket-size format and will be a good reference point to both existing and new entrant trade persons working in the industry and will also provide advice to supervisors, managers and directors to help improve health and safety performance on site.

Some health and safety risks you may face on site include:

- Falls from height
- Working on fragile roofs
- Working in excavations
- Risk of eye injury from flying particles and dust
- Cancer risk from wood dust
- Slips trips and falls due to untidy work area
- Exposure to asbestos
- Manual handling activities
- Using various types of machinery and tools
- Moulds, fungi and bacteria
- Dermatitis
- Cuts and abrasions
- Struck my machinery
- Loss of fingers/limbs
- Flammable or combustible materials, including wood dust
- Risk of pain or injury from performing repetitive tasks
- Exposure to noise
- Struck by falling objects
- Working in confined spaces

- Exposure to electricity
- Vibration white finger
- Hand and foot injury
- Sun exposure

Working in the construction industry is both rewarding and satisfying but as the above list shows you could be exposed to various risks if the correct safe methods of work as described in this booklet are not followed.

Think about the various health & safety risks that could be found on your site, speak to your supervisor or person/s in charge about ways of eliminating or reducing those risks and stay safe and healthy.

CARPENTERS AND JOINERS

Your trade provides a valuable service to your industry, in order to sustain this valuable service you need to look after yourself and the industry needs to look after you; it also needs you to look after others including those new to the industry such as apprentices and persons from other countries.

As stated your job is a valuable one and if you were asked to describe your job role to someone it would probably include the following wide range of activities, also the wood occupations cover a vast range and include bench joinery, wood machining, formworking etc.

- Working by hand or with hand tools
- Working with portable power tools such as saw, jig saw, router, planer etc.
- Reading and interpreting drawings
- Grinding and sharpening tools
- Measure, cut, shape, assemble and join materials.
- Knowing the properties of various types of materials
- Using glues and preservers
- Using hammers, chisels and saws to cut and fit materials.
- Working well independently or with co-workers under deadline to get the job done
- Working in different areas of the occupation
- Experimenting with various materials and methods to solve construction problems
- Prepare cost estimates and documentation for clients
- Conform to building codes and other regulations
- Supervise apprentices or other workers

You can be working on site, in a machine shop, or at a bench; building or repairing various structures, working primarily with wood but from time to time working with other materials in interior systems and dry lining.

HEALTH AND SAFETY LAW & TRAINING

Your health, safety and welfare at work are protected by law, your employer has a duty to protect you and keep you informed about health and safety and provide adequate information, instruction, supervision and training to enable you to carry out your work in a safe manner.

You also have legal duties too as follows:

- Take reasonable care for your own health and safety and of others who may be affected by your work such as other workers or members of the public
- Comply with instructions or control measures such as the wearing of personal protective equipment.
- Co-operate with your employer on health and safety and training requirements.
- Correctly use and report any defects on work equipment provided by your employer this could be machinery, tools or personal protective equipment
- Do not interfere with or misuse anything provided for your health, safety or welfare.

Self-employed persons also have duties under the law in relation to their own Health and Safety and ensure that their work does not put others at risk.

If you think there is a health and safety problem on your site you should first discuss it with your supervisor, H&S adviser or person in charge.

The Construction (Design and Management) Regulations (Northern Ireland) CDM

The updated CDM regulations place a responsibility on you and emphasise the importance of competence at all levels in securing health and safety benefits, it states that every person shall report any defect which he/she is aware may endanger the health and safety of himself/herself or another person.

Health and Safety on Site

A number of initiatives have been launched to promote and improve good practice and by reducing accidents and ill health. These initiatives are supported by Northern Ireland construction companies, Health and Safety Executive Northern Ireland, employers and training bodies.

BuildHealth launched in 2006 to improve the health of construction workers in Northern Ireland by: preventing work related ill health: supporting and rehabilitating ill workers and using the workplace as a setting in which to improve health.

You have a part to play in this process by working safely, staying healthy, preventing injury to yourself and others and not being complacent.

Always inspect equipment that you have been given and report any defects, if you see any defects in scaffolding, ladders and mobile towers this could cause serious injury or death, report immediately, only repair if authorised to do so by your employer or person in charge, and only if trained and competent.

If an accident should happen it must be reported to your supervisor, manager or a responsible person and a record should be kept, most employers have a no-blame-culture, and encourage reporting of any problems that you see that could prevent an accident from happening in the first place or its reoccurrence.

Information gained from reported accidents can be used to improve health and safety on site.

Remember accidents are preventable, by following safe systems of work you can help to improve the standards of Health and Safety on your site.

Health and Safety Training

CITB-ConstructionSkills NI encourages the adequate training of all those working in the Northern Ireland construction industry to enroll with appropriate Industry Registration Schemes, which are designed to meet the needs of both clients and contractors to improve the training standards of the industry. When employees are registered with the appropriate registration scheme, clients are advised that the workforce on their sites have received safety training and, where appropriate, have a stated level of occupational competence.

Having a recognised registration card is a good starting point in showing proof of health and safety training but more specific training will be required depending on work activity such as:

- Induction training
- Tool box talks
- Woodworking machine training
- Working at heights
- Specific manufacture type training
- Health and Hygiene preventing dermatitis
- Lifting and handling manual loads
- Using plant and equipment like MEWP's or Forklift Trucks
- Using scaffolding and mobile towers
- Using hand tools

- Abrasive wheels and cartridge tools
- Refresher training
- Conversion training
- Familiarisation training

This is not an exhaustive list and other training requirements may be necessary as and when required.

Adequate training can help prevent accidents and ill-health and make for a more motivated and productive workforce, ensure that you have received adequate training required to do your job safely and efficiently.

All construction personnel should adopt the principles and practices stated in this document, where reasonably practicable. This booklet is intended as a good practice health and safety guide and should be supported by relevant training and the HSENI publications.

Welfare Facilities - Health and Hygiene

Your employer or the person in control of any site has a legal obligation to ensure that sufficient welfare facilities are provided. These include washing, toilet and rest facilities.

There is also a requirement for facilities to be made available for the storage of clothes that are not worn during working hours, the storage of clothes that are not taken home and for changing clothes when specialist clothing is required to be worn at the work place.

Washing facilities on site should include hot and cold water, soap and basins large enough to wash forearms.

Do not abuse these facilities ensure you keep them clean and tidy, and report any vandalism.

If you are working with hazardous substances such as asbestos or lead, specialist welfare facilities must be provided.

HAND HYGIENE

Hand hygiene is essential. The hands are the most likely part of the body to come into contact with harmful substances.

Failure to take basic precautions can lead to skin complaints.

Dirty hands should be cleaned using proper supplied skin cleansing products. Do not clean hands with white spirit, thinners, petrol, turpentine etc.

Always ensure that you wash your hands after a visit to the toilet.

Always ensure that your hands are clean before handling food.

Anyone who prepares food for others must have been trained in food hygiene procedures.

Failure to observe basic hygiene precautions could lead to food poisoning, which at worst can be fatal.

WOODWORKING HAZARDS AND TRAINING

Woodworking Training

It is a misconception by some managers to assume that time served joiners are fully qualified in their work including operating woodworking machinery. Some joiners were trained a number of years ago under older regulations, (even then very little or no training was provided on tool setting), refresher training is a must to ensure an adequate standard of training is maintained.

Authorisation to operate woodworking machinery

“It should not be assumed that qualified staff, new staff etc, are competent in the use of such equipment, therefore it is a legal requirement that no one should be allowed to work at a woodworking machine unless they have demonstrated competence”.

Wood Dust

Too much dust of any kind can adversely affect health and wood dust is no exception. The sawing and planing action generates high levels of dust which can be damaging to your health. Breathing in some dusts has been known to cause nasal cancer and the development of respiratory ill health, in particular damage to the lung tissue which can result in serious breathing difficulties, depending on the extent of exposure.

Sawing and planing of timber and other materials can also cause fragments and dust to enter the eye and cause severe eye injuries.

Fire/Explosions

Every year there are reports of fires and explosions which severely damage or destroy premises or plant. Concentrations of small dust particles in the air can form a mixture that will explode if ignited. Often the explosions occur in dust extraction equipment and it is here that special precautions have to be taken. Secondary explosions can also follow the main explosion especially if dust deposits have accumulated in the workroom.

Wood dust will also burn readily if ignited. There have been numerous fires started due either to badly maintained motors, electric sparks, or due to open wood burning stoves and cigarettes.

Make sure that all equipment is cleaned and that dust is not allowed to accumulate, report any defects you see on equipment.

Goggles should be worn at all times to prevent dust particles entering the eye, and the correct type of dust mask to prevent dust entering the body.

Proper dust extraction equipment should be used, hire companies can provide details on the latest equipment such as wet systems or methods available to prevent dust exposure.

Woodworking machinery

Ensure that all equipment is inspected and any faults found are reported, also ensure the equipment is cleaned regularly. Make sure you have received adequate training if using any wood working machinery as failure to follow this advice could lead to death or serious injury.

Bench circular saws, planing machines and vertical spindle moulding machine have long been recognised as the main source of woodworking machine accidents.

Remember the following control measures:

1. Ensure work area is tidy and kept clear of debris etc.
2. Inspect equipment for faults/damage before use.
3. Use only approved equipment if competent in their use and ensure familiarity with machinery and electrical isolation controls.
4. Where necessary use a dust mask to prevent inhalation of dust.
5. Warning signs must be displayed if appropriate.
6. Use hearing protection if noise levels excessive and advise others to wear hearing protection.
7. Ensure that appropriate guards are in place and adjusted correctly for the work to hand.
8. Hold material flat on table against fence.
9. Use push stick.

On completion

1. Switch off extract system.
2. Tidy up. Clean work area, machinery and equipment used. Use vacuum cleaner where necessary. Do not sweep.
3. Reset/isolate machinery.

Horseplay

Horseplay at a woodworking machine caused a 19-year-old employee to lose his fingers on a saw when another employee pushed him against the bench.

The 19-year-old's left-hand fingers were amputated disabling him for life.

This type of activity is totally unacceptable in any work area, but is criminal where dangerous equipment such as circular saws, planing machines and spindle moulders are working.

Horseplay among employees can result in serious consequences as this case has highlighted and a majority of these accidents result in amputations. Under Health and Safety law, it is the duty of every employee while at work to take reasonable care for the health and safety of himself and of other people who may be affected by his acts or omissions.

Always follow correct procedures when using machinery, ensure that you follow all manufacture guidance and that guards are in place.

Use push sticks of suitable length and ensure that all emergency stop controls or mechanisms are in place and working correctly.

Chainsaws

A chainsaw makes light work of cutting timber but treat it with respect! A chainsaw can easily slice through muscle or bone if it kicks back towards you.

Some ways you can reduce the risk of hazards from chainsaws are:

- Know your saw and how to use the safety devices.
- Wear and use the correct personal safety equipment, you need:
  - Footwear - boots with steel toe caps that give firm ankle support.
  - Leg Protection - chainsaw operator's safety trousers or chaps, wear good quality.
  - A Safety Helmet of the correct type.
  - Earmuffs.
  - Eye Protection - goggles in dusty conditions or a helmet visor if there's a danger of flying debris.
- Ensure all guards are in place and maintained.
- Check the work area for any tripping hazards.
- Check that your saw is in good order and adjusted to the manufacturer's specifications.
- Do not over-reach or cut above shoulder height.

Exhaust fumes

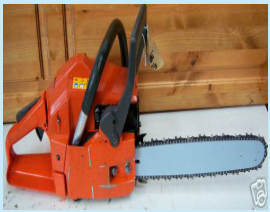
Exhaust fumes contain carbon monoxide, which can make you feel drowsy and cause you to lose concentration, increasing the risk of an accident.
Avoid using in a confined space and ensure that the saws exhaust and fuel system are properly maintained and any faults reported to your supervisor.

Chainsaw Training

It's essential to get training from a qualified person before you use a chainsaw. The operator should be trained in the following to ensure safety and efficiency:

- Chainsaw inspection and fault reporting
- Chain Lubrication
- Adjusting chain tension
- Checking chain and sprocket wear
- Fitting new chain
- Safe fuelling
- Carrying chainsaw correctly
- Repetitive strain injury
- Vibration white finger
- Manual Handling
- Noise, dust, hazardous substances
- Safe starting and stopping procedures
- Wearing correct personal protective equipment
- Using chainsaw as per manufacture guidance

This is not an exhaustive list



All persons using equipment must be trained in the safe use of that equipment to ensure safety and efficiency

HAZARDOUS SUBSTANCES

Chemicals/Dermatitis

Although joinery tends to be considered work which principally involves the use of machinery and handtools there are nevertheless a number of chemicals used which can cause ill health. These health problems can occur through inhalation of certain chemicals, ingestion (e.g. wood preservatives). Some pass through the skin (e.g. some wood preservatives and solvents). Certain substances are known to cause severe dermatitis (e.g. epoxy resins and timber preservatives).

Direct skin contact should be avoided; suitable gloves and overalls should be worn when handling potentially hazardous materials.

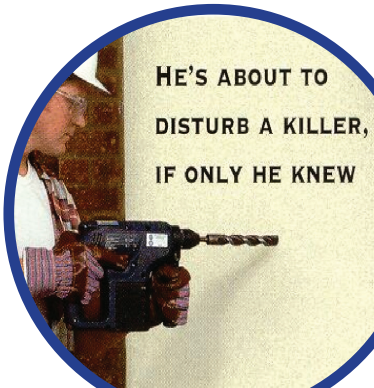
Training on how to treat exposure should be given by your employer, you must tell your supervisor if you see early signs of dermatitis.

Asbestos

Breathing asbestos dust can cause serious damage to the lungs and cause cancer. There is no known cure for asbestos related diseases.

Many buildings built or refurbished before the mid 1980's contain asbestos. Asbestos containing materials should be indemnified before work commences to prevent inadvertent exposure to asbestos. Asbestos insulation board, asbestos coatings and asbestos insulation should only be removed by a licensed contractor.

If you suspect you have been exposed asbestos or you have identified it on site tell your supervisor or person in charge immediately.



WORKING AT HEIGHTS

Serious or even fatal injury could occur if you fall from height.

Make sure that edge protection is in place to stop you and materials falling.

Falling through fragile roofs has caused death and serious injury so look out for fragile materials such as roof lights or cement sheets and take appropriate precautions to prevent you or others from falling.

Use 600mm wide crawling boards, or roof ladders – no walking, cover adjacent fragile roof lights with protective cover such as thick plywood sheets.

If required use harnesses, safety nets, air bags etc, but don't take chances.

Proper risk assessments and method statements prior to any work starting are essential to prevent or control this type of activity.

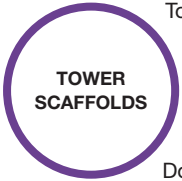
Ensure that persons are not working underneath you or if this is not possible ensure that all precautions have been taken to prevent materials falling onto them.

Remember scaffolding should be inspected after substantial alternation or repair, after any event likely to affect stability like strong winds and at regular intervals not exceeding seven days.

Any faults found must be put right, scaffolding should be tagged to warn others if faults have been found.

Your employer should ensure that other contractors scaffolding that you are using is safe.

- Ensure scaffolding requirements, including appropriate load rating and provision of loading bays with your employer or supervisor.
- Scaffolding could collapse and crush injuries may occur, or worse, if the scaffolding collapses on top of you.
- Check with the site manager that the correct scaffold is provided and inspected, ask for evidence that the scaffold has been erected by a competent person and inspected.
- No one should interfere with or misuse scaffold,only competent persons can erect and inspect scaffolding.
- If you think that a scaffold has been interfered with or could be unsafe, report this to your supervisor or other person in charge immediately.
- Do not make any unauthorised adjustments to any scaffold, never remove ties or handrails.
- Safe stands with handrails to be used for work on internal walls, don't be fooled into using unsafe platforms.
- If a harness is required then make sure you wear it correctly, use a suitable lanyard and inspect before and during use, you must be trained in the safe use of harnesses.
- Ensure any safety equipment provided to prevent injury from falls is in place and secure.
- If using Mobile Elevated Work Platform's MEWP's you must be trained in the safe use of these machines.



Tower scaffolds are used widely in the construction industry and a number of accidents happen each year mainly due to the tower not being properly erected or used.

Before Use

Do not erect or inspect tower scaffolds unless you are trained and competent to do so.

Make sure the tower is resting on firm level ground with the wheels or feet properly supported.

Do not use crushable material such as bricks or building blocks to take the weight of any part of the tower.

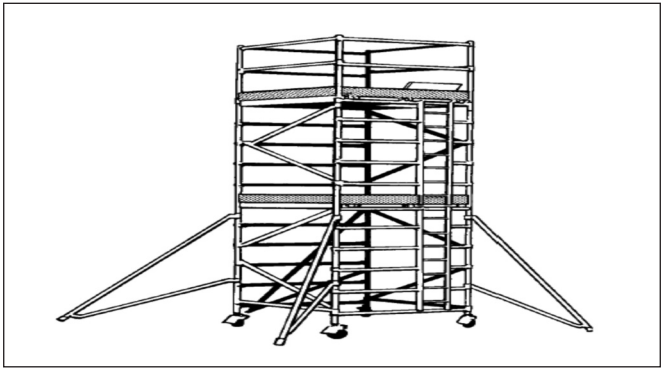
Some guidance suggests if using steel towers in exposed conditions or outside, the height of the working platform should be no more than three times the minimum base dimension or three and a half times the dimension if used inside, if using alloy towers you should follow the manufacturer's instructions.

Our recommendation is before using any tower scaffold that you first check with the manufacturer about the recommended working height of the platform.

Remember the following as a guide.

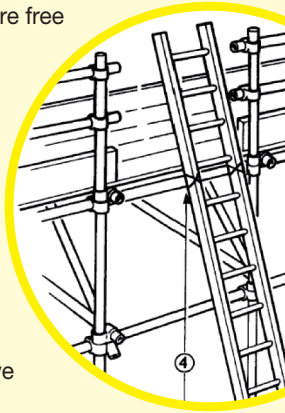
- Do not sheet as this could act like a sail and overturn the tower.
- Ensure the tower is on firm level ground.
- Do not load with heavy equipment or materials.
- Do not use to hoist heavy materials or support rubbish chute
- Always use ladder for access, do not climb on the tower.
- Always climb from the inside of the tower
- Use a brick guard where necessary
- Tower should not be moved with anyone remaining in the structure

- Close platform access door to prevent falling through.
- Watch out for overhead power lines before moving.
- Do not use vehicles to push or pull the tower.
- Ensure brakes are applied.
- If fitted, check that outriggers are set correctly and secured.



Ladders

- The ladder should be angled to minimise the risk of slipping outwards and as a rule of thumb needs to be ‘one out for every four up.
- Access ladders should extend about 1m above the working platform. this provides a handhold for people getting on and off.
- Ensure that ladders are tied on both stiles to prevent slipping.
- Ladders should be in good condition and examined regularly to make sure they are free from defects.
- Ladders should not be painted as this can hide defects.
- Ladders used must be in good condition, adequately secured (lashed) and placed on firm surface.
- Do not overreach; if you are working from a ladder, make sure it is long enough and positioned to reach the work safely.
- Do not climb or work off a ladder unless you can maintain 3 points of contact.
- Minimise openings in scaffolds that have been created for ladder access.



Ladders should be correctly angled; one out for every four up

Stepladders

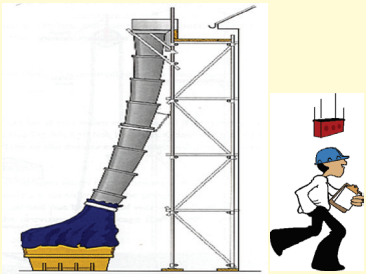
- Do not use the top platform of a stepladder unless it is designed with special handholds.
- Ensure stepladders are positioned on level ground and used in accordance with the manufacturer's instructions.

Falling objects

Can cause injury to your head, body and feet, and to someone working in the area below you, or members of the public passing close to the site. Make sure no debris falls from height, place objects in a safe place and use a suitable chute for materials going into a skip.

Make sure all necessary precautions are taken as follows:

- Brick guards kept in position on scaffold lifts.
- Waste materials removed form scaffolding and placed in skip.
- Protective foot wear (with steel toe caps & mid-soles) supplied and worn at all times.
- Safety helmets to be worn and chin strap used when required.
- Encourage other workers to wear safety hats, protective clothing and foot wear.



SLIPS TRIPS AND FALLS

Account for nearly 13% of all injuries to woodworking employees. Anyone at work can help to reduce slip and trip hazards through good health and safety arrangements. Effective solutions are often simple and cheap.

You or others could suffer sprains or fractures if you trip over waste or equipment including tools, cables, timber, and pallet debris etc. Slips at height could result in a serious fall or death.

- Make sure your work area is clean and as even a surface as possible.
- Wear suitable approved footwear with non slip soles.
- Clear up after you at intervals, and at the end of the day.
- Waste including wood cuttings and pallet debris should be disposed of in skip.
- Clear up spillages that you see, don't walk past, clean it up.
- Safely store cables to help prevent tripping.
- Ensure you have adequate lighting.
- Report any defects that you see to equipment or work surfaces.
- Keep an eye out for visitors to your work area.
- Access and egress steps to plant and equipment should be kept clean and any damage reported.
- Safe route to workplace agreed and maintained at all times.
- Encourage other workers to wear safety footwear whenever on site.

Tripping hazards like these are common on site – report them to your supervisor immediately

Stepping on nails and sharp objects

To help prevent foot injuries the following should be implemented:

- Safety boots with steel toe caps and mid soles should be provided to all those working on site.
- Waste disposed of in skips.
- Nails clinched or removed from waste or stored timber.
- Explain to others the need to wear safety boots and dispose of waste in skips.

STRUCK OR CRUSHED BY MOVING VEHICLES

You could suffer serious or even fatal injuries from vehicles and machines on site – particularly when they are reversing.

- Make sure that you only walk to your work area on a safe agreed route.
- Report to your supervisor if this route becomes blocked.
- Where your Hi visibility vests at all times.
- Never use your mobile phone on or near a route provided for vehicles or plant as you could be struck or run over.

Never approach a machine operator from behind his/her vehicle as you could be crushed.

Never except a lift on an item of plant unless a proper passenger seat has been fitted by the machine manufacture for this purpose

SAFETY IN EXCAVATIONS

Every year, people are killed or seriously injured when working in excavations. Excavation work has to be properly planned, managed, supervised and carried out to prevent accidents. This guide provides advice for those involved in excavation work.

Think before you enter an excavation

- Are the sides protected from collapse, or have they been battered back, do not go into unsupported trenches.
- Remember that even work in shallow trenches can be dangerous. You may be bent down or kneeling in the trench.
- Could materials fall into the excavation or on top of you?
- Could people and/or vehicles fall into the excavation?
- Will you be a safe distance from excavators or other machinery?
- Have walls been undermined, could they collapse.
- How are you going to get in and out safely, has a ladder been provided and secured, do not climb over the sides of the excavation.
- Ask about underground services, has a risk assessment been done.
- Exhaust fumes from machinery can settle in excavations as the fumes are heavier than air, you could be overcome by fumes and collapse.
- Do not site petrol or diesel-engined equipment such as generators or compressors in, or near the edge of, an excavation unless fumes can be ducted away or the area can be ventilated.
- Weil's disease from rat's urine can cause health problems and in extreme cases death, always use the correct type of gloves to protect your hands including wet suits and boots.

- Always were hard hat just in case.
- Remember an excavation can be classed as working at height as you could fall into the trench.

Ask if the excavation has been inspected, look for evidence that a competent person has inspected the excavation:

- At the start of each shift before work begins.
- After any event likely to have affected the strength or stability of the excavation.
- After any accidental fall of rock, earth or other material.

Remember that a cubic metre of soil weighs over a tonne; A person buried under this amount in a trench would quickly suffocate & die.

Safety in Confined spaces

Confined spaces include: -

- shafts	- ceiling voids	- tunnels
- boilers	- sewers	- deep excavations
- box girders	- manholes	- cellars and basements

Confined spaces can be a high risk activity and cause death and serious injury if proper control methods are not followed.

Entry into a confined space to carry out work that could be done on the outside should never be allowed.

You should never enter a confined space unless in is absolutely necessary to do so and never unless you have received adequate training.

Never enter a confined space unless a risk assessment has been carried out, emergency procedures are in place and a permit to work has been issued.

If no provision has been put in place to rescue you should anything go wrong do not enter.

Those that could be killed include not only people working in confined spaces but those who try to rescue them without proper training and equipment.

Dangers can arise in confined spaces because of a lack of oxygen. This can occur due to a build up of gases in the space.

As with excavations, do not site petrol or diesel-engined equipment such as generators or compressors in, or near the edge of, a confined space unless fumes can be ducted away or the area can be ventilated.

Confined spaces should only be entered if a permit to work or enter has been issued, ask questions if in doubt, ask about the emergency procedures, has the equipment been inspected have all persons been trained, was the training adequate and provided by a competent person.

Remember an excavation can also be a confined space.

Preparing for a safe confined space entry

NOISE

From use of equipment e.g. saws, planers, spindle molders etc.

Workers using this type of equipment or working near others doing so may suffer hearing loss.

- Machines should be inspected for noise to ensure all panels and guards are correctly fitted and not rattling or vibrating, machines can be sited on noise absorbing materials to reduce noise.
- Other machines should be sited far enough away from each other so as to reduce noise and provide more work space.
- Tell your supervisor if you think that noise is a problem on your site or machine shop.
- Noise assessment to be implemented if noise is a problem

Hearing protection if required should be worn and maintained, noise induced hearing problems, including deafness, are all too common in woodworking. Very often the attitude has been that it is all part of the job. Report defective machinery, bearings that are not properly greased can increase noise levels; loose panels can also increase noise levels.

MANUAL HANDLING

Make sure you have been trained correctly as you could suffer from back injury and long term pain if you regularly lift or carry loads.

- All loads if possible to be transported and lifted to scaffold or work area using lifting equipment such as a telescopic Handler etc.
- Provision of lifting/loading bay agreed.
- Wood to be covered with tarpaulin when stored on site to prevent taking up water.
- Trolley to be used if possible for moving loads around the scaffold or work area.
- Check for any loads over 20kg and make lifting arrangements.
- Any loads over 20kg, should be positioned using suitable lifting equipment used by trained persons
- Avoid awkward postures or repetitive tasks, or take frequent breaks.
- Learn safe lifting techniques as it is not just the weigh of a load that can cause injury, light loads if not lifted correctly can also cause problems.
- Keep work areas clear of clutter and equipment.
- Use and maintain PPE correctly.
- There is a risk of pain or injury from working in awkward positions, performing repetitive tasks, or lifting.

Apply the following to help prevent injury:

- Avoid lifting manually where possible; use a lifting aid or device where practical to do so.
- Bend your knees; use the strong leg muscles instead of your back.
- One foot slightly in front of the other use a good stance for stability.
- Keep the load close to your body.
- Check the load for stability and look out for sharp edges.
- Assess the weight of the load and if satisfied lift smoothly.
- Don't twist your body, use your feet to change direction.
- Look out for tripping hazards prior to lifting or carrying a load, plan your route.
- If in doubt don't lift get help or speak to your supervisor.

Don't lift this way – you are risking permanent injury

Use mechanical lifting aids whenever possible

POWER AND HAND TOOLS

All hand tools and equipment should be visually checked for faults before use, if using electrical powered equipment a Residual Current Device (RCD) connection should be used or equipment should be 110 volt or battery operated;

Don't use a chisel like this as particles can fly off and enter the eye or other parts of the body, ensure the mushroomed head is ground off safely by using eye protection and grinding in a safe area.

Ensure tools are used correctly and as intended by the manufacture, don't get involved in horseplay.

Do not use power tools unless you have been trained and authorised to do so.

Ensure you report any defects and that all equipment is inspected before and after use.

Your employer should ensure that a maintenance record is available and kept up to date, power tools should be pat tested.

HAND-ARM VIBRATION SYNDROME (HAVS)

What is Hand-Arm Vibration?

Hand-arm vibration is vibration transmitted onto your hands and arms when you use hand-held powered work equipment such as chainsaws.

Prolonged vibration is known to affect blood vessels, nerves, muscles, tendons and other body parts.

The main complaint arising from continued vibration from hand tools is Vibration White Finger (VWF), in which surface blood vessels become damaged, resulting in circulatory problems, pain and in the worse cases gangrene.

When Are You at Risk?

You are at risk if you regularly use hand-held or and guided power tools and machines such as:

- Chainsaws
- Sanders, grinders.
- Drills.
- Routers and Moulders
- Hammers
- Saws

How You Can Help Reduce the Risks

It is your employer's responsibility to protect your welfare, but you should help by asking your employer if your job could be done in a different way without using vibrating tools and machines. If this cannot happen:

- Ask to use suitable low-vibration tools.
- Always use the right tool for each job (to do the job more quickly and expose you to less hand-arm vibration).
- Check tools before using them to make sure they have been properly maintained and repaired to avoid increased vibration caused by faults or general wear.
- Make sure cutting tools are kept sharp so that they remain efficient.
- Reduce the amount of time you use a tool in one go, by doing other jobs in between.
- Avoid gripping or forcing a tool or work piece more than you have to.
- Store tools so that they do not have very cold handles when next used.

Encourage good blood circulation by:

- Keeping warm and dry (when necessary, wear gloves, a hat, waterproofs and use heating pads if available).
- Giving up or cutting down on smoking because smoking reduces blood flow.
- Massaging and exercising your fingers during work breaks.

ELECTRICITY

Electric shock is a major hazard on a building site, a 240 volt supply is often enough to kill a person, which is way 110 volt supplies are used. If 110 volt supply cannot be used always use a Residual Current Devise (RCD) connection, but make sure it is tested.

Don't take chances with electricity cables, treat all cables as live until you know otherwise.

If using powered hand tools make sure that the supply voltage is correct for the equipment.

All plugs and leads are in good condition a free from defect.

Ensure only correct fuses are used 'no nails'.

Don't make any temporary repairs, have those that are trained repair all equipment.

Keep cables off the ground whenever possible; do not let them run through water, wet areas or mud.

If cables have to be on the ground ensure that they are protected from damage and not a trip hazard.

Keep extension leads as short as possible.

Do not use extension leads that are still wound on a reel as the cable can melt due to heat build up.

Do not use insulating tape to cover breaks on a cable, have it repaired, all electrical equipment must be inspected and tested before use.

SUN EXPOSURE

Too much sunlight is harmful to your skin.

In the short term, even mild reddening of the skin from sun exposure is a sign of damage. Sunburn can blister the skin and make it peel.

Longer term problems can arise. Too much sun speeds up ageing of the skin, making it leathery, mottled and wrinkled. The most serious effect is an increased chance of developing skin cancer.

What can you do to protect yourself?

- Keep your shirt on/top on.
- Wear a hat with a brim or a flap that covers the ears and the back of the neck.
- Stay in the shade whenever possible, during your breaks and especially at lunch time.
- Use a high factor sunscreen of at least SPF15 on any exposed skin.
- Drink plenty of water to avoid dehydration.
- Check your skin regularly for any unusual moles or spots.

See a doctor promptly if you find anything that is changing in shape, size or color, itching or bleeding.

SLINGING AND LOAD HANDLING

Slinging and load handling is perhaps the most vital part of any lifting operation.

Do not get involved in any slinging operations unless you have been adequately trained and authorised to do so.

Failure to follow this advice could lead to death or injury

FIRST AID

First aid provision is all about treating an injured person immediately and contacting the emergency services if need be. In extreme cases it saves lives.

All sites should have a sufficient number of trained first aid persons in keeping with the risks and the numbers employed.

The name of the nominated first aider(s) should be posted in the canteen and other prominent position.

The first aider should be the first person contacted in the event of an injury or health problem on site.

CITB-ConstructionSkills NI

The purpose of CITB-ConstructionSkills NI is to encourage the adequate training of those employed in, or intending to be employed in, the construction industry in NI, by establishing the training needs of the industry, encouraging and advising the industry to train and ensuring the adequate provision and standard of training in the industry.

Through Legislation CITB-ConstructionSkills NI is authorised to raise a levy from the N.I. construction industry to fund its activities and services that aim to encourage adequate training.

The levy is redistributed through grants, and other activities including training advice & support, recruitment & education, research, standards & training provision.

ConstructionSkills is the Sector Skills Council for the industry from professional consultancies to major contractors and SMEs.

Established as a Sector Skills Council in 2003, ConstructionSkills is a partnership between CIC, CITB-ConstructionSkills NI and CITB-ConstructionSkills. All three partners are committed to working together to deliver industry-led skills and training solutions through the Sector Skills Agreement for construction. We work to negotiate the best partnership and funding deals for the construction industry to help raise standards and we develop the skills products and services employers need.

CITB-ConstructionSkills NI

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Notes

Where there are unsafe acts illustrated in the photographs - the scenarios were re-created for illustration purposes and no one was put at risk at any time.

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HEALTH AND SAFETY ADVICE FOR CARPENTERS & JOINERS

CITB constructionskills
NORTHERN IRELAND

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