



## Health & Safety Use of Knives, Sharps & Other Cutting Tools Policy

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<sup>1</sup> or earlier if change in legislation or on risk assessment

### Amendment Control

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## Policy Summary

The use of sharp implements and cutting tools, e.g. knives, scalpels, hypodermic needles and lancets, is commonplace across the university and injuries from their use are frequent. Cuts from clean, sharp blades, e.g. a clean scalpel blade or craft knife, tend not to be life threatening but can impact on someone's ability to continue working. Injuries from other sharps, such as a needle or lancet that has been used for clinical work, could potentially transmit infection if a blood sample or other biological agent is contaminated.

Health and Safety legislation in the UK requires that risks be assessed, managed and reviewed. Any workplace activities using knives, sharps or other cutting tools must have a risk assessment in place. All hazards must be identified and control measures in place in order to reduce risk to as low a level as reasonably practicable.

Definition of clinical work for this policy describes any work taking place in the university where human participants are required e.g. blood donation or where animal tissue is being used e.g. in a dissection lab.

**This policy does not cover saw blades or any automated equipment containing cutting parts. For information regarding these please see the [Provision and Use of Work Equipment Regulations \(PUWER\)](#).**

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# 1. Introduction

Sharps are defined as anything that can cut, puncture or scratch the skin and should be handled with great care.

Examples of sharps include:

- Knives – these can be craft knives, Stanley knives, utility knives, kitchen knives etc.
- Scissors
- Scalpel blades
- Box cutters
- Hypodermic needles
- Lancets
- Pointed forceps
- Dissection needles
- Broken glass and other broken material such as plates or cups
- Food wrap container blades

Any members of staff, students, contractors or visitors considered at risk from this type of injury should follow any safety instructions and be trained in the use of such equipment before use, read any risk assessments provided and, if unsure, speak with their supervisor or member of staff in charge of area.

This document provides guidance on the risks associated with sharps, how to control the risks and how to deal with sharp-related incidents.

## 2. Working with craft knives, scalpel blades, knives

### Managing the risk

The most common type of injury is cuts to the non-knife hand or arm. Knives can also cause sprain and strain injuries when they're not sharp enough because they require extra force to cut.

Injuries are commonly caused when:

- Personnel have not been trained in the safe handling and use of knives, blades etc.
- The knife isn't sharp enough.
- Workers aren't wearing adequate Personal Protective Equipment e.g. cut resistant gloves.
- Workers attempt to catch falling knives.
- Workers do not take adequate breaks.
- Workers are performing repetitive tasks.
- Workers are distracted by other activities close by (including mobile phones).
- Workers are not paying attention fully on the task.
- Knives/blades are used for something other than cutting. A knife should not be used as a pry bar, can opener, chisel, punch, awl, scraper, or screwdriver.

The following guidance is based on the hierarchy of control central to all health and safety regulations in the UK.

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## Eliminate

Where possible, avoid the need to cut by :

- Using appropriately sized materials to minimise the need to cut
- Buying pre-cut materials

## Safer alternatives (engineering control)

Where cutting cannot be avoided, consider the use of alternatives to knives:

- Guillotines
- Ripping or tearing the material
- Scissors (of appropriate size)
- Laser cutters

Note: this does not mean that these alternatives are risk free, the hazards and risks for alternative items of equipment also need to be considered before use. Specific PPE may also be required (eye and/or hand protection).

## Selection of equipment

Where use of safer alternatives is not practicable, care should be taken to use appropriate equipment:

- Sufficiently sized cutting mats or chopping boards (**not** desktops!)
- Where possible, use retractable blades
- All equipment should be in good condition – sharp blades and a strong handle
- Specific PPE may also be required (eye and/or hand protection)

## Control whilst cutting

When cutting with a knife or blade, even with the appropriate equipment, safe cutting practices are essential.

- Always make sure the material to be cut is held firmly on a stable surface.
- Keep your 'other' hand behind the cutting blade at all times (most cuts are to the fingertips of the non-cutting hand and happen on the 'follow through').
- **Never** cut towards your body/hands.
- If necessary, secure work with pins/tape/holding stick etc.
- Don't press too hard (if necessary make several cuts).
- If necessary, make a series of shorter cuts to keep control over long cuts.
- Be aware of others in the area (they may bump or distract you).
- If the tool has a retractable blade, retract it immediately after use, and retract it fully.
- If not confident or unsure of how to use the knife or blade ask your supervisor, technician or member of staff in charge of area.
- Concentrate! Do not engage in discussions with your co-workers while you are using a sharp tool. Stop cutting if you need to look up or focus on something else.

## Control when not in use

The risk of injury from knives is not limited to their use:

- Always cover the blade of a knife when not in use (retract blade, proprietary covers, tubing sleeves, cork, robust storage case)
- Never leave open knives unattended on desks
- Never leave unprotected blades/knives in drawers
- Never leave knives on floors, chairs etc. where others might not expect to find them
- Never put unprotected blades in your bag/pocket

## Maintenance (i.e. blade changing)

Particular care must also be taken when maintaining knives:

- Take particular care when changing blades on 'surgical' style scalpels – use pliers
- Ensure new blades are stored locally and can be accessed when required
- Keep fingers away from cutting edge if sharpening on a stone
- **Do not** sharpen knives on the workshop grinders – if you need something sharpened, ask a technician
- Use sharps bins to dispose of blades, do not leave them unprotected on the desk or floor

## Using the correct tool for the job

Here are some factors to consider when selecting the correct knife:

- **Knife blade** – What kind of blade is appropriate for the job? Should it be firm or flexible? Does it need to be retractable?
- **Knife edge** – Do you need a fine edged blade for a smooth, clean cut? Would serrated blades be more effective?
- **Handle size** – Is the size of the knife's handle large enough for a secure grip? If you can't get a good hold, your hand could slip forward over the blade when cutting.
- **Handle design** – How often will you be using a knife or blade? Is an ergonomic design important to alleviate injuries that repetitive movements could cause?
- **Material** – What material is the knife made from? Your school or service area may determine what type you need.

## 3. Working with potentially contaminated sharps

Injuries whilst performing clinical work, e.g. when taking a blood sample, are rare but risk is still present. As well as the risk from cuts, punctures and scratches there is a risk that any blood sample or biological agent may carry an infection which could be transferred to a worker.

Examples of workplace activities which may involve potentially contaminated sharps:

- Using a needle to draw blood from a participant.
- Using a scalpel blade to cut animal tissue e.g. in a dissection lab.
- Using a needle and syringe to transfer small amounts of a chemical or biological substance which could be classified as hazardous.
- Disposing of a broken glass bottle which may have contained a hazardous material.

Care must be taken when handling sharps in clinical work areas as there is a potential risk of infection from cuts, punctures or scratches to the skin.

## What are the risks?

The main risk from a contaminated needle injury is the potential exposure to blood-borne viruses (BBV). The blood-borne viruses of most concern are Hepatitis B, Hepatitis C or HIV. Blood-borne viruses could infect someone through a sharp contaminated with tissue, blood or bodily fluid from a participant or infected source or culture. Few people from those potentially exposed are infected, but an injury like this can still have a traumatic effect on the individual even if there is no infection.

Injured personnel could experience trauma from:

- The effects of the injury
- Anxiety about its potential consequences
- The effects of post-exposure treatment

Other risks from exposure to potentially contaminated sharps include:

- Puncture in skin from a syringe whilst transferring small amounts of a hazardous chemical
- Cut from a scalpel blade while dissecting animal tissue
- Cut from a piece of broken glass while disposing of waste materials

## Who is at risk?

- Staff (academic and technical) working in laboratories with specialist chemical and biological hazards, in research and clinical environments where known and unknown infectious agents may exist.
- Staff and students working with potentially infected materials and/or using needles in clinical areas.
- Phlebotomists (these tend to be trained members of staff) employed to collect blood samples from volunteer participants.
- Cleaning staff potentially exposed to needles or broken glass that have not been disposed of properly.

## Control measures

The following guidance is based on the hierarchy of controls central to all health and safety regulations in the UK.

### Eliminate

- Prevent the use of needles and sharps if they are not essential.
- Do not use hypodermic needles if they are not necessary – cannulas can transfer a substance while reducing the risk of needle stick injury.

### Substitute

- Don't use a sharp needle when a blunt one can be used instead.
- Use single use instruments such as disposable scalpels where possible to avoid changing blades.
- If possible transfer small volumes of chemicals using a micropipette (with plastic tips) instead of a syringe with needle.

## Engineering controls

- Use safer sharps devices such as syringes with retractable needles or retracting finger prick lancets where reasonably practical and when they do not introduce other hazards.

## Safe systems of work

- Ensure any workers (staff, students) have been trained in working with sharps.
- Ensure all Risk and COSHH assessments are in place.
- Only un-sheath a needle in the work area when it is required.
- Never re-sheath a needle or remove needles from syringes before disposal unless documented as part of the Safe Systems of Work.
- Don't carry any sharps between labs and never by hand - use a tray.
- Do not place the hand, that is not holding the needle, in front of the needle.
- Always point sharps away from you and everyone else.
- Dispose of sharps correctly.
- Never put sharps in your lab coat pocket.
- Ensure all used sharps, broken blades, and any broken glass are disposed of safely. Needles and scalpel blades should be placed in a sharps bin. Broken glass and other broken sharp shards should be disposed of carefully and in a way that it can't harm other workers e.g. cleaning staff.

## PPE

- Suitable Personal Protective Equipment (eye protection, lab coat, gloves\*) must be worn when working with needles and other sharps to transfer blood samples, bodily fluids, potentially infectious substances or any respiratory pathogens.
- Exposed cuts or abrasions of the skin must be covered with a waterproof dressing or plaster.

\* *Wearing gloves to protect against sharps is possible but may decrease dexterity and the ability to feel and manipulate objects resulting in greater risk. If gloves are not expected to be worn then this should be highlighted in the risk assessment.*

## Information and training

The majority of control measures required when working with sharps and blades rely on the user being competent in their use. With that in mind any information or training provided should contain the following:

- Safe use and handling techniques of any sharps being used.
- Information on when sharps are not to be used.
- Information on any hazards workers could be exposed to and the risks from exposure.
- Findings of any Risk or COSHH assessment relating to the activity.
- Control measures to protect employees such as medical devices, safer needle appliances, PPE (if required), safe systems of work, local procedures and codes of practice.
- Availability of prophylaxis (such as vaccinations) against hazards or potential treatments.
- Information on the safe disposal of sharps.
- Emergency procedures and the requirement of individuals to report incidents.
- Health surveillance where required.



## 4. Disposal of sharps and blades

Incorrect disposal or not sterilising equipment before disposal creates a risk to cleaning staff, waste removal personnel and members of the public, all of whom rely on best practice of sharps users to prevent these risks.

All sharps should be disposed of carefully at the point of use. This means suitable sharps containers should be portable enough to take to the activity and designed specifically to allow needles and sharp instruments to be disposed of easily and safely at point of use.

Evidence shows that sharps injuries often occur when the used medical sharp is being transported or when disposed of incorrectly. Most sharp injuries to cleaning staff or other support staff usually involve disposable medical sharps that have not been placed in an appropriate sharps container, have been placed in an overfull container or have been placed in a plastic rubbish bag and have pierced through the bag.

## 5. Emergency procedures

### What to do if you get a sharp injury

Should you, or someone you are working with, suffer an injury with a knife or a sharp tool (cut, laceration, puncture wound, or injection) then you should contact a trained first aider via the security control room (internal ext. 4444 or 0131 455 4444) or the campus iPoint.

Please provide the following information:

- Location of injured person (campus, school/service and room number).
- Details of injury (cut, laceration, puncture wound, or injection).
- Number from which the call is being made and name of caller.

If you suffer an injury from a sharp which may be contaminated:

- Encourage the wound to gently bleed, ideally holding it under running water.
- Wash wound or exposed area under running water with soap.
- Do not scrub the area which can further damage the skin.
- Do not suck the wound.
- Dry the wound and cover with a waterproof dressing.
- If you are still concerned about contamination issues, seek medical advice.