

General



Using Safety Knives Correctly



Training
Support Material for Workplace Safety Briefings



Preventing hand injuries – Using safety knives correctly

Our hands are remarkably complex tools. Comprising 27 bones, over 30 muscles, numerous ligaments, tendons and nerves, plus thousands of sensory receptors, they allow us to feel and grasp things, communicate with others and carry out our work. However, hands and fingers are especially vulnerable to cuts and puncture wounds, particularly from utility knives, box cutters and cable knives. According to the German Social Accident Insurance association (DGUV), more than 34,600 reportable knife-related workplace accidents occurred in 2024.

Causes of injury

Common causes of knife risks and hand injuries include the following:

- The knife slipping while cutting
- Instinctively trying to catch a falling knife, especially one with a fixed blade
- Carrying uncovered knives in trouser or jacket pockets
- Using unsuitable or blunt blades
- Replacing blades incorrectly
- Using knives inappropriately (e.g. holding the material in the cutting zone)
- Reaching into piles of discarded blades left lying around

Hierarchy of controls (STOP principle)

Personal protective equipment (PPE) should only be used where hazards cannot be prevented or sufficiently minimised through substitution or technical and organisational measures.

- S** **Substitution:** choose alternative cutting methods, such as shears for cable trunking or flexible conduit
- T** **Technical controls:** provide suitable tools that are as safe as possible, for example replacing standard utility knives with safety knives equipped with a holster/pouch and a blade disposal box.

- O** **Organisational controls:** withdraw unsuitable knives from use, instruct staff to use only the knives provided, give clear instructions on blade disposal and keep sufficient replacement blades in stock.
- P** **Personal protective equipment:** provide instruction on the safe use of knives and on wearing PPE such as cut-resistant gloves.

The various safety levels

Cuts frequently occur when using utility knives and box cutters that feature fixed or snap-off blades. Wherever possible, these should be replaced with safety knives. However, ensuring proper use remains critical even when using safer tools.

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1. Basic safety: Knives with automatic blade retraction (Safety Level +)

Push the blade out of the handle using the slider, engage the material and then release the slider. The blade retracts into the housing the moment it clears the workpiece, but only if you have released your thumb from the slider!

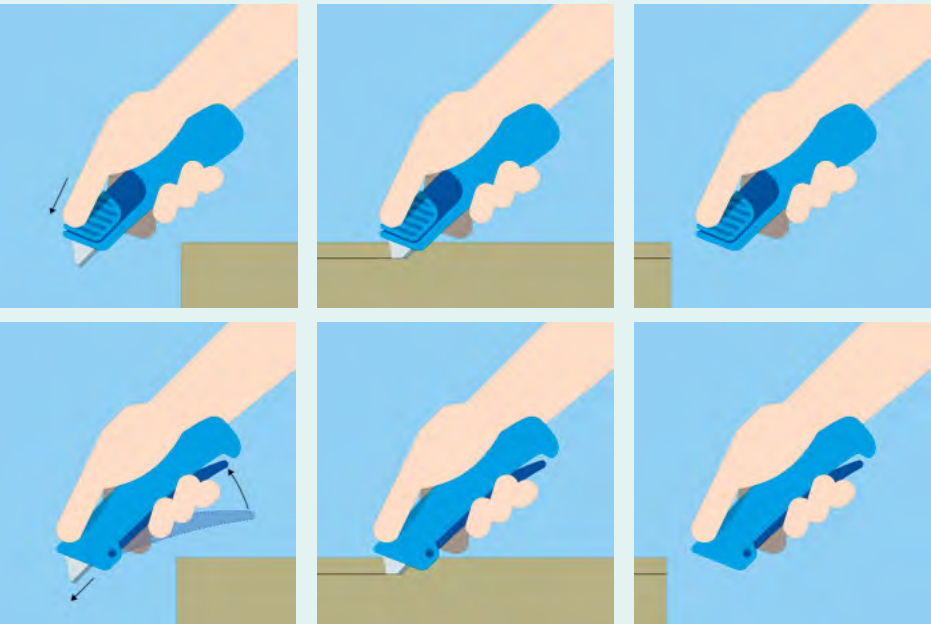


The blade retracts into the housing once it clears the material, but only if the user has released the slider. Holding the slider overrides this safety feature.

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2. High safety: Knives with fully automatic blade retraction (Safety Level ++)

These safety knives operate in the same way as models with automatic blade retraction. However, the key difference is that the blade retracts fully automatically the moment it clears the workpiece, even if you continue to hold the slider forward.



Push the blade out of the handle using the slider, engage the material, and make the cut. The blade will snap back into the housing the moment it clears the material, even if you keep your thumb on the slider.

- +++

3. Maximum safety: Box cutters and film cutters: Knives with a concealed blade (Safety Level +++).

Box cutters, carton openers and film cutters with a concealed blade provide the highest level of protection. Physical contact between your hand and the blade is completely impossible.



Insert the knife into the material. Guide the tool along the cutting line, keeping the blade at a 45-degree angle.

Correct handling of safety knives

Not every knife is suitable for every job. It must be appropriate both for the material being cut and for whatever task is being carried out. That's why only knives provided by your employer or supervisor must be used.

When being carried or transported, knives should be kept in suitable pouches; if they have a safety catch or transport lock, this must be engaged.

Blunt or damaged blades must be replaced immediately in accordance with the manufacturer's instructions (using cut-resistant gloves). The blade must then be disposed of in a suitable container.



Tips for safe cutting

- Cut at an angle and always ensure no part of your body is in the line of cut.
- Angle the knife at 45 degrees to reduce the physical effort required when cutting heavy cardboard.
- Pull plastic banding or strapping taut before cutting, and slice it at a shallow angle.
- Only carry out heavy-duty cuts using robust knives configured for a shallow depth of cut.
- Scoring, slitting or removing box lids should ideally be done using a concealed-blade safety knife.



What to do in the event of accidents, first aid

Following an injury, medical attention should be sought from an approved workplace accident insurance doctor (German: D-Arzt). Even for minor cuts, it is highly advisable to seek medical evaluation to ensure the wound is properly cleaned and dressed. Failing to do so can lead to infection and, in severe cases, sepsis.

If a finger is amputated, never bring the severed part into direct contact with ice or other frozen items. Instead, wrap it loosely in sterile dressing materials and keep it cool, for example by placing it inside a specialised double-walled sterile plastic bag.

All injuries must be recorded in the site accident book or similar in full compliance with data protection laws, detailing the name, date, time, nature of the injury, circumstances of the accident and the initial first aid measures applied.

DGUV information 204-006: "First Aid Guide"

DGUV information 204-021: "Documentation of First Aid Treatment (Site Accident Book)"

DGUV information 204-001: "First Aid Poster"

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