

TSK6U Emergency First Aid at Work EFAW



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The Legal Requirements for Rescue

The legal requirement for rescue

Why do we need to make provision for rescue?

There are three main reasons why employers need to make provision for rescue arrangements when working at height:

- (a) The law says so.
- (b) The casualty needs to be recovered - and quickly.
- (c) No-one else will be able to do it.

The law

The Work at Height Regulations 2005 require employers to make specific provisions for emergency planning, as follows:

Organisation and planning – Regulation 4

- (1) Every employer shall ensure that work at height is:
 - properly planned
 - appropriately supervised
 - carried out in a manner which is so far as is reasonably practicable, safe and that its planning includes the selection of suitable work equipment
- (2) Planning of work includes planning for emergencies and rescue.
- (3) Every employer shall ensure that work at height is carried out only when the weather conditions do not jeopardise the health or safety of persons involved in the work.

In addition, the following regulation requires that all activities, including rescue, must be carried out by competent persons:

Competence - Regulation 5

Every employer shall ensure that no person engages in any activity, including organisation planning, and supervision, in relation to work at height or work equipment for use in such work unless he is competent to do so or, if being trained, is being supervised by a competent person.

The casualty needs to be recovered quickly

Motionless head up suspension can lead to what is called pre-syncope – which means a condition that can lead to loss of consciousness.

Symptoms include light headedness; nausea; sensations of flushing; tingling or numbness of the arms or legs; anxiety; visual disturbance; or a feeling they are about to faint. This occurs in most normal subjects within 1 hour and in a fifth within 10 minutes.

When contemplating working at height, and in particular when considering the use of a fall arrest system, employers need to consider any emergency or rescue procedures that may be required and the drawing up of an emergency and rescue plan. It is not acceptable just to rely on the emergency services.

The key is to get the person down safely in the shortest possible time and before the emergency service response.

Planning for Emergencies

Planning for emergencies

It is essential that there is a specific rescue plan and resources in place for each worksite and that these are regularly assessed and updated where necessary. Resources should include not only equipment but also trained personnel.

When planning for rescue, consideration should be given to the type of situation from which the casualty may be recovered and the type of fall protection equipment which the casualty would be using.

The following are examples of different work methods which would require individual solutions for rescue. The rescue plan should identify appropriate equipment and suitable methods of use. Some of the situations described below may create special difficulties, for example in attaching to a casualty who is suspended out of reach. Such factors should be considered when deciding on a safe system of work:

- Wire fall arrest block ("inertia reel")
- Textile fall arrest block
- Vertical anchor line – textile ("flexible anchor line")
- Vertical anchor line – wire
- Vertical rail ("rigid anchor line")
- Horizontal anchor line – wire
- Horizontal anchor line – textile
- Energy-absorbing lanyard
- Hooped ladder

All rescue planning and operations should address the following:

- What anchor points are available
- How to attach to the casualty
- Any particular needs of the casualty with respect to injury or pre-syncope
- Whether the situation dictates that the casualty should be lowered or raised
- Possible needs of the casualty following the rescue

Special consideration should be given to available anchor points, both during the planning stage and during the rescue operation. Anchor points must be suitably positioned for the intended operation and should be unquestionably sound.

If a rescue procedure requires an operator to descend to recover a casualty there may be additional loading on an anchor system, which may be required to support the load of two persons.

Some special types of anchor (e.g. portable horizontal lines, portable dead-weights) may not be suitable for such applications and in the case of dead-weights the performance of the anchor may be affected by environmental consideration such as rain. Users of such systems should consult the manufacturer for guidance.

In view of the above, rescue methods which do not require a rescuer to be exposed to risk are preferred.

The potential for a casualty to be located over an edge should be considered. Recovery over an edge will increase the effective load in raising operations may create risks of cutting or abrasion of the anchor line. Edges may also interfere with the operation of rescue equipment which utilises pulley systems.

Provision should be made to ensure that help is provided promptly to any individual who needs it or who is unable to communicate and might be in danger.

Key Features of Rescue Systems

Key features of rescue systems

To be effective, rescue equipment must be easy to use, safe and effective.

1. The rescuer should never be part of the rescue system.
2. The rope device should not operate in the case of panic by the operator (“failsafe”).
3. The system should be simple to operate and not liable to confuse the operator (e.g. should not be liable to twisting or entanglement during deployment).
4. The method of attaching to the casualty should be straightforward and reliable.
5. The rope device must not need to be reconfigured when changing from one mode to another (e.g. should not need additional parts to be added to achieve its function).

The above principles are fundamental when configuring or specifying a system for rescue at height.

General considerations for the casualty

The longer the casualty is suspended without moving, the greater the chances are of adverse effects developing and the more serious such effects are likely to be.

An injured person hanging in a harness awaiting rescue should therefore, be removed from upright suspension as quickly as possible. The aim should be to do this within 10 minutes.

This is particularly important for a casualty who is motionless.

A conscious casualty should be encouraged to exercise their legs gently, to stimulate circulation of the blood.

Regarding the position of the casualty - during rescue, the casualty might be better off with the knees elevated.

Effect of Harness Suspension

Effect of harness suspension – “Harness Intolerance”

In the past, the term “suspension trauma” had been widely adopted throughout industry to describe the situation of a person falling into suspension in a harness and then becoming unconscious.

Motionless head-up suspension can lead to pre-syncope (light headedness; nausea; sensations of flushing; tingling or numbness of the arms or legs; anxiety; visual disturbance; or a feeling they are about to faint) in most normal subjects within 1 hour and in a fifth within 10 minutes.

In this scenario the loss of consciousness is not due to any physical injury, but rather, it is thought that orthostasis - motionless vertical suspension - is responsible. “Trauma” is, therefore, an inappropriate term which may be better replaced by the descriptive term “syncope” which is the sudden transient loss of consciousness with spontaneous recovery, as may occur with a simple faint.

Until quite recently it was thought that recovery after harness suspension should be done in a sitting position. This has since been discovered not to be based on sound evidence and may prove dangerous, through prolonging the lack of blood return to the brain.

However, following completion of an evidence-based review of published medical literature, HSE has now clarified guidance on the first aid management of a person falling into suspension in a harness who may develop 'suspension trauma'.

The key recommendations are:

- No change should be made to the standard first aid guidance for the post recovery of a semi-conscious or unconscious person in a horizontal position, even if the subject of prior harness suspension.
- No change should be made to the standard UK first aid guidance of ABC management, even if the subject of prior harness suspension.
- A casualty who is experiencing pre-syncope symptoms or who is unconscious whilst suspended in a harness should be rescued as soon as is safely possible.
- If the rescuer is unable to immediately release a conscious casualty from a suspended position, elevation of the legs by the casualty or rescuer where safely possible may prolong tolerance of suspension.

First responders to persons in harness suspension should be able to recognize the symptoms of pre-syncope (see above).

