First Aid



INCIDENT

A 44-year-old male police officer drowns while attempting to rescue a citizen from a submerging vehicle in the Cumberland River. On the day of the incident, the victim and two other police officers responded to a call at 4:30 am of a person in a vehicle at the end of the boat ramp located inside Peeler Park threatening to drive into the river. The victim approached the driver's side of the car, and another police officer approached the passenger side of the car still parked at the water's edge. At some point during their conversation with the driver of the car, the car started moving toward the water, and either the victim stumbled or the momentum of the car took him into the water. The other officer noticed the victim was struggling and jumped into the water to help him, but was unsuccessful. The ambient air temperature on this day in February was 40 degrees and the river currents were strong. It is possible the cold water, strong river current, and the uniform including a Kevlar vest, utility belt and winter jacket, all saturated with water, may have been too much weight for the victim to overcome.

NEED TO KNOW

Training your first aid attendants and first responders is a required part of every first aid program.

Sudden cardiac arrest, severe bleeding, shock, a near-drowning, or lack of oxygen during confined space work are all life-threatening emergencies. Without prompt and properly performed first aid a victim of any of these situations will very likely die or be permanently disabled while waiting for emergency services to arrive and begin care.

The first few minutes are important for the survival of any accident victim. If you can provide prompt and proper first aid while waiting for medical assistance to arrive, you greatly increase your co-worker's chance for a complete recovery.

When you come across an accident, first ensure your own safety. Look, listen and smell for signs of danger. Never endanger yourself to assist another person. That includes never entering a confined space to rescue a co-worker unless you use company authorized procedures. Do not allow yourself to be exposed to blood or other bodily fluids because of the danger of bloodborne diseases such as HIV and Hepatitis B. Act quickly and calmly, even if all you can do is call for medical assistance and stay with the victim to reassure him.

Many deaths and impacts can be prevented with First Aid if causalities are treated immediately. Timely care prior to the arrival of the medical help means the difference between life and deaths. It must start immediately when the injury or

illness occurs and continue until medical help arrives or the casualty recovers.

Aims of First Aid

1. To save life
2. To protect the casualty from getting more harm
3. To reduce pain and priorities of casualty treatment

Basic first-aid safety tips for common workplace injuries

- First, make sure the person is breathing. If necessary, and if you are trained, start the ABCs of first aid -Airway, Breathing and Circulation. This may include either rescue breathing or Cardiopulmonary Resuscitation (CPR).
- Be prepared to treat every accident victim for shock because it can be a life-threatening condition. Look for symptoms such as pale, clammy skin and rapid, shallow breathing. Make the person comfortable, either lying down or in a semi-sitting position, and keep him warm.
- If there is bleeding, remember the 3 P's. To slow or stop the bleeding, position the person lying down, position the limb higher than the heart and apply pressure on the wound. Cover the wound with a clean cloth and secure with a larger bandage. You must protect yourself from contact with blood.
- Support a broken bone in a comfortable position – using pillows or rolled blankets. Elevate the limb slightly if possible and apply a wrapped ice pack on the swelling. Don't move the person unless he is in immediate danger.
- Soak small heat burns in cool water for 20 minutes and protect with a light, lint-free dressing. Serious burns can be fatal and need prompt medical assistance. With all burns, don't break blisters, don't apply oil, lotions, butter, or ice and don't remove charred or melted clothing.
- For burns caused by chemicals, immediately place the person into an emergency shower. Make sure the victim continues showering for a minimum of 15 minutes while he removes all of his clothing. Medical treatment is necessary.
- Chemical eye injuries should be irrigated for at least 20 minutes in an eye wash and while the person is being transported to medical aid.
- A puncture wound to the chest or lungs is a life-threatening injury. Quickly seal the wound by placing your hand, plastic, foil, or a credit card over the injury. Have someone else send for medical assistance. Place the person in a comfortable semi-sitting position.
- Amputations can also be life threatening. First, stop the bleeding by applying pressure to an artery in the wrist, arm, groin or leg. Then apply clean dressings to the stump and treat the patient for shock. Wrap the amputated part in a clean cloth and place in a bag of ice. Make sure you send the amputated part with the patient to the hospital.

Golden rules of first aid

1. Reach the site of accident as early as possible.
2. Do not waste time asking unnecessary questions
3. Find out the cause of injury.
4. Do first things first quickly, quietly and without fuss or panic.
5. Give artificial respiration if breathing has stopped-every second counts.
6. Stop any bleeding.
7. Guard against or treat for shock by moving the casualty as little as possible and handling him gently.
8. Do not attempt too much-do the minimum that is essential to save life and prevent the condition from worsening.
9. Reassure the casualty and those around and so help to lessen anxiety.
10. Do not allow people to crowd around as fresh air is essential.
11. Do not remove clothes unnecessarily.
12. Arrange for the removal of the casualty to the care of a Doctor or hospital as soon as possible.

BUSINESS/REGULATORY

The Health and Safety (First Aid) Regulations

The Regulations require employers to provide adequate and appropriate equipment, facilities and personnel to enable first aid to be given to employees who are injured or become ill at work.

A first-aid box must be provided at each workplace location, and a first-aid 'appointed person' should be available at all times when people are at work. An **'appointed person'** must be someone who takes charge when someone is injured or falls ill (including calling an ambulance if required) and who looks after the first-aid equipment, e.g. restocking the first-aid box. An appointed person is not necessarily a fully trained first-aider. Practices fall into the category of smaller organizations where there is a low risk of injury, and are not required to have fully trained first-aiders.

However, practices will need to consider remote locations and / or locations shared with other organizations when planning their first aid provisions, and the provision of first aid cover for any shift workers and mobile workers. Staff must be made aware of the location of the first-aid box and the name(s) of first-aiders.

- **HSE guidance booklet – 'First aid at work: The Health and Safety (First-Aid) Regulations 1981: Guidance on regulations'**

All accidents / injuries at work must be recorded in an **accident book**.

Information for first aiders about the risks of cross infection:

- **HSE guidance leaflet – 'Blood-borne viruses in the workplace: Guidance for employers and employees'**

First aid training

Since the **1st October 2013 HSE** no longer approves training and qualifications for the purposes of first aid at work. Training organizations who were formerly 'Approved' by HSE to deliver First Aid at Work **Training can no longer claim to be HSE Approved or use their HSE Approval number**. The flexibility arising from the changes in the **Regulations** gives employers more choice in the first aid training they provide for their employees and who they choose to provide it.

STATISTICS

Each year, thousands of workers are injured or killed due to insufficient safety processes, with the construction sector, in particular, reporting high levels of injuries and fatalities annually. There were 2.9 million nonfatal workplace injuries and illnesses reported by private industry employers in 2016.

Due to the nature of work, the risks contractors face are almost endless; amputations, broken bones, fractures, burns, risk of electrocution, cuts, lacerations and exposure to dangerous machinery.

The importance of first aid knowledge is backed up by research from St.John's Ambulance, in the UK, which suggests that up to 150,000 people a year could be given a chance of life if more people knew first aid. The service also says that 900 people a year choke to death, 2,500 asphyxiate, and 29,000 people die from heart attacks. About 610,000 people die of heart disease in the United States every year – that's 1 in every 4 deaths, according to the Centers for Disease Control and Prevention. Many of these deaths were preventable through knowledge of first aid.

The construction industry has one of the highest fatality and injury rates of any industry, with fatality rates for 2016 at the highest level since 2008, according to

the Bureau of Labor Statistics (BLS). The construction fatality rate for private construction currently stands at 9.5% per 100,000 workers.

5 STATISTICS THAT EXPLAIN WHY WE NEED FIRST AID AT WORK REGULATIONS

Imagine a business that has no health and safety precautions and regulations in place – the possibilities for workplace injuries and accidents are endless. **The Health and Safety Executive (HSE)** have some incredibly shocking statistics about injuries and fatalities in the workplace from 2015/16, and they reveal why first aid at work regulations are essential.

The Health and Safety (First Aid) Regulations 1981 states that employers are required to provide adequate equipment and trained personnel in the workplace. This ensures that employees are given immediate attention should they fall ill or become ill at work. These regulations are relevant to each and every workplace, even those with less than five employees, and those who are self-employed.

THE STATISTICS THAT SHOW THE WORTH OF FIRST AID AT WORK:

1. **Estimated 621,000 workers sustained a non-fatal injury at work**

Over 600,000 people became injured at work in just a year, First Aid exists to help save lives and inform people of what to do in an emergency. This proves there are many, many opportunities for First Aiders to help out fellow employees, until the emergency services take over (if needed).

2. **Estimated 25,900,000 working days were lost due to work-related illness**

An illness is typically harder to prevent than an injury at work, but First Aiders are made aware on how to treat illnesses such as allergic reactions, asthma attacks, fainting, seizures, and a stroke. Evidently, there's plenty of opportunities to help a member of staff in the workplace.

3. **Estimated 4,500,000 working days were lost due to workplace injuries**

If injuries are treated in a timely manner by somebody with First Aid training, then employees could be in working order sooner and employers could get more hours out of their staff. It's a win-win!

4. **Estimated 119,000 slips, trips or falls at work led to an injury**

Almost a fifth of the workers who become injured throughout the year are harmed by slipping, tripping or falling. The amount of time taken to treat such incidents may be drastically reduced if risk assessments are carried out, with potential risks being eliminated where possible. If First Aiders are readily prepared to react to such accidents, then the average working days lost per case could be fewer.

5. **Average of 7.2 working days lost per case**

Each time an employee is injured at work, they take an average of 7.2 days to heal and return. If First Aid procedures are put in place and followed, this number may be reduced as timely attention and treatment could be applied – thus reducing the time taken out of work.

The source for these statistics is the HSE link.

PREVENTION

6 critical procedures connecting first responders to when emergency care can be given.

1. **Teaching Methods**

Training programs should:

- Help trainees develop “hands-on” skills using mannequins and partner practice.
- Have the right first-aid supplies and equipment available.
- Expose trainees to acute injury and illness situations and responses using visual aids.
- Include course resources for reference both during and after training.
- Allow enough time for emphasis on commonly occurring situations.
- Emphasize skills training and confidence-building through “hands-on” practice.
- Emphasize quick response to first aid situations through practice scenarios and drills.

2. **Preparing to Respond to a Health Emergency**

Include instruction and discussion on:

- Prevention as a strategy to reduce fatalities, illnesses and injuries.
- Understanding the legal aspects of providing first aid care, including Good Samaritan legislation, consent, abandonment, negligence, assault and battery.
- Understanding the effects of stress, fear of infection, panic; how they interfere with performance; and what to do to overcome these barriers.

3. **Assessing the Scene and the Victim(s)**

When covering scene and victim assessments include discussion and practice (if applicable) on:

- Assessing scene for safety, number of injured, and nature of the event.
- Assessing toxic potential of the environment and the need for respiratory protection.
- Assessing each victim for responsiveness, airway blockage, breathing, circulation, and medical alert tags.
- Identifying the presence of a confined space and the respiratory protection and specialized training required to perform a rescue.
- Prioritizing care when there are several injured.
- Taking a victim’s history at the scene and determining the cause of injury.
- Performing a logical head-to-toe check for injuries.
- Methods for safely:

- Moving and rescuing victims.
- Repositioning ill/injured victims to prevent further injury.

- Stressing the need to continuously monitor the victim.

4. **Responding to Life-Threatening Emergencies**

The training program should be designed or adapted for each worksite and should include standard first aid, CPR, and AED use as well as instruction in:

- Knowledge of the chemicals at the worksite and of first aid and treatment for inhalation or ingestion;
- Effects of alcohol and illicit drugs so the first-aid provider can recognize the physiologic and behavioral effects of these substances.
- Recognizing asphyxiation and the danger of entering a confined space without appropriate respiratory protection.
- Additional training is required if first aid personnel will assist in the rescue from the confined space.
- Responding to Medical Emergencies
- Chest pain, stroke, breathing problems.
- Anaphylactic reaction and hypoglycemia in diabetics taking insulin.
- Seizures and reduced level of consciousness.
- Pregnancy complications.

- Abdominal injury and an impaled object.

5. **Responding to Non-Life-Threatening Emergencies**

Common non-life-threatening injury and illness treatment includes:

- Wounds
- Wounds assessment and first aid for wounds including cuts, avulsions, and amputations.
- Principles of wound care, including infection precautions and use of PPE.
- Burns
- Assessing the severity of a burn.
- Recognizing type of burn is thermal, electrical, or chemical – and appropriate first aid.
- Reviewing corrosive chemicals at a specific worksite and hazard-appropriate first aid procedures.
- Musculoskeletal Injuries
- Fractures, sprains, strains, contusions and cramps.
- Head, neck, back and spinal injuries.
- Appropriate handling of amputated body parts.
- Eye injuries
- Oral injuries and the importance of preventing aspiration of blood and/or teeth.

6. **Trainee Assessment and Skills Refresher**

- Assessment of successful completion of first aid training should include a skills test and a written assessment.
- Numerous studies have shown a retention rate of 6-12 months of first aid skills.
- Skill reviews and practice sessions are recommended at least every 6 months for CPR and AED skills.
- Instructor-led retraining for life-threatening emergencies should occur at least annually.
- Retraining for non-life-threatening response should occur periodically.