



**BritishRedCross**

**Life. Live it.**  
The case  
for first aid  
education in  
UK schools



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“Preventable pain is a blot on any society.  
Much sickness and often permanent disability  
arise from failure to take early action...”

Aneurin Bevan, In Place of Fear, 1952

# Executive summary

First aid should have a central part in any preventative health education programme. The focus for health worldwide has increasingly moved to the prevention of unnecessary suffering, illness and death. In the UK, government efforts have been directed at promoting healthy lifestyles to children and young people to prevent illness and disease in later life. First aid education should be a central part of these health programmes, teaching skills that can prevent an illness or accident inflicting serious injury, or resulting in a fatality. Yet there is no comprehensive first aid education programme in UK schools.

In many health emergencies, interventions in the first few minutes, before the emergency services arrive, can make a crucial difference to the outcome for the casualty. If we are serious about preventing unnecessary injury and death, then we need to ensure that people in the UK have basic first aid knowledge.

The British Red Cross believes that first aid is a basic life skill that everyone should learn. In this report, we argue that teaching children and young people these skills through schools is the best way to make that happen. A survey by Ipsos MORI conducted for the British Red Cross shows that 93% of people in Britain also support first aid being taught in UK schools.<sup>1</sup>

By starting to teach first aid in all UK schools, we can help children and young people prevent serious injury and death in their communities today. By continuing to teach first aid in schools to successive generations, we can help build a community where every citizen knows how to respond to a health emergency.

## What's at stake?

Every year in the UK, there are 5½ million attendances at Accident and Emergency departments for accidents. Of these, there are 3 million attendances of the types of accident and injury that first aid treatment can benefit.

These 3 million accidents and injuries include, every single day, more than 2,600 open wound injuries, more than 2,400 bone injuries, almost 40 incidents of choking, and more than 290 injuries from burns. First aid skills are important in all these scenarios as they can reduce injury and promote recovery.

First aid can also save lives, and there are more than 8,000 deaths every year in the UK from accidents and injuries. A further 66,000 die from heart attacks and seizures.

## How first aid saves lives

This report explores how first aid skills can reduce injury and save lives in cases of accident and illness. For example, the evidence shows that:

- > immediate cardiopulmonary resuscitation (CPR) can double or triple the chances of survival for a heart attack casualty
- > an unconscious patient with a blocked airway can have only 4 minutes to live – unless a bystander steps forward and does something as simple as tilting the head back to enable them to breathe
- > basic procedures like cooling a burn can reduce the need for skin grafting, lessen injury and promote healing

These are skills that all young people should learn as they grow towards independence, take part in risky behaviours and take on more responsibilities such as childcare and learning to drive. We should also want the next generation to know how to reach out and help others in need, whether it is a member of their own family, a friend or a fellow citizen.

## First aid in schools

The current picture of first aid education in schools is patchy and inconsistent. Across the four countries of the UK, there are a

couple of good examples of first aid provision on the curriculum in a few key areas. However, nowhere is there a clear and comprehensive programme for

first aid education in the curriculum. We believe there are **8 first aid essentials** that every young person should learn, wherever they live in the UK

### The **8 first aid essentials** include:

- 1. Dealing with accidents –** assessing danger, keeping yourself safe, calling for the emergency services
- 2. Unconsciousness & resuscitation –** checking and clearing the airway, checking breathing, the recovery position and CPR
- 3. Choking –** checking the severity of choking, using back blows and abdominal thrusts (Heimlich manoeuvre)
- 4. Bleeding & shock –** compression, elevation of the wound above the heart, bandaging and identifying and treating shock
- 5. Burns & scalds –** cooling burns with cold water, and what not to do (such as covering with woolly dressings)
- 6. Specific injuries –** avoiding further damage to a fractured or broken bone, treatment of sprains and strain
- 7. Specific illnesses –** such as heart attacks, diabetic control, asthma attacks, Meningitis, epileptic seizures
- 8. Emotional and social –** reacting to stress, offering emotional support, the social dimension of helping others in need, and humanitarianism

The British Red Cross believes that it is fundamentally important that children and young people are taught these basic life skills. First aid skills are also easy to learn, and each of the 8 skills identified can be taught in a matter of hours. However, we recognise that there are different structures and methods for delivering education across the UK. That is why the proposals in this report are flexible and pragmatic.

We identify areas of the curriculum in which first aid could be taught, including personal and social education subjects, science, physical education and citizenship. We also set out a range of different options for delivery, including an important role for voluntary sector organisations like the British Red Cross in direct education, contribution to teacher training, and the development of resources used in the classroom.

We invite government to consider how best to deliver these crucial skills in schools, to enable the next generation to keep safe, stay healthy and make a contribution to our communities as active citizens.



## Chapter One: The Red Cross and first aid

Emergency response and resilience is a central part of Red Cross activity, and first aid education and skills are an essential part of that work, both in the UK and internationally. First aid is a cost-effective, safe and simple way to save lives in an emergency. Millions of people are hurt or killed from injuries or ill health every year. These may be the consequence of day-to-day health problems and accidents, or crises such as conflict and natural disasters. Whether it is managing outbreaks of major diseases, providing treatment to heart attack or accident victims, first aid provides that initial rapid response to protect people and minimise the impact of a health emergency.



**“Saving a life – the ultimate humanitarian act;  
the most wonderful gift we can offer anyone –  
family member, friend, neighbour or total stranger.  
We all need this vital skill.”**

Sir Nicholas Young, Chief Executive, British Red Cross

## First aid: our history

The International Red Cross and Red Crescent Movement was born of a desire to bring assistance without discrimination to the wounded on the battlefield. Swiss citizen Henry Dunant had been appalled at the suffering of thousands of men, on both sides, who were left to die due to lack of care after the Battle of Solferino in 1859.

Dunant proposed the creation of national relief societies, comprised of volunteers, trained in peacetime to provide neutral and impartial help to relieve the suffering in times of war. In response to these ideas a committee, which later became the International Committee of the Red Cross, was established in Geneva.

The founding charter of the Red Cross was drawn up in 1863.

The remit of the Red Cross later expanded to include peacetime activities and incorporate “the improvement of health, the prevention of disease, and the mitigation of suffering throughout the world.”<sup>2</sup>

## First aid today

First aid skills are vital in most emergencies and the majority of the 185 Red Cross and Red Crescent national societies provide first aid education and training as part of their aim to help build resilient communities.

### In the UK

The British Red Cross has been training members of the public in first aid skills since its founding in 1870. Every year, the British Red Cross now formally trains more than 125,000 people in first aid skills – individual members of the public, its own volunteers and commercial clients – and reaches tens of thousands more with first aid education and messages.

We produce a wide range of first aid supplies and learning aids, including books, comprehensive first aid kits and interactive CD-ROMs. We also provide trained first aid volunteers to local events and in support of the emergency services when necessary.

In the UK, British Red Cross first aid programmes increasingly focus on groups who are vulnerable or most in need of these skills. A number of projects are under way demonstrating this change in direction.

We recently piloted first aid learning for people with disabilities, and are using a grant from the Big Lottery Fund to role this programme out nationwide. Between 2006 and 2009, we will train over 200 first aid trainers to deliver training to over 5000 people with disabilities and over 1500 carers and family members of people with disabilities. We are also developing projects that focus on homeless and insecurely

housed people, vulnerable children and young people, and those in rural and remote areas.

In 2005 and 2006, we have delivered first aid training to South Asian communities in nine areas in the UK. South Asian people suffer from a higher risk of heart disease, and we have been working with local communities to build their resilience through first aid learning. As part of this project we have produced a range of bilingual materials in English with Punjabi, Gujarati, Urdu, Hindi and Bengali to assist the learning and to encourage it to be spread through the communities beyond the people who attend the training.

### UK emergency response

As an auxiliary to the emergency services, the British Red Cross and its trained volunteers are on standby 24 hours a day, 365 days a year, to support and assist the statutory and emergency services whenever and wherever there is a need.

It has always been a vital part of an effective emergency response strategy for the general population to have practical first aid skills: from war-time Voluntary Aid Detachments (VADs) to trained Red Cross volunteers helping casualties at the scene of an emergency today.

In the last few years, the British Red Cross has been called on in its capacity as an auxiliary to Government on a number of occasions, including after the 7 July bombings in London where the Red Cross dispatched ambulances and trained first aiders at the request of the emergency services.



**“In 2005, British Red Cross first aiders treated 28,000 casualties at public events, trained 125,700 people and raised awareness of life-saving first aid skills among nearly 200,000 others.”**

Roger Smith, Director of HR and Education Services, British Red Cross

**“I think this is an excellent initiative to teach young people the life saving skills that they can take through their life span. I am sure that many of the older generation now value enormously the knowledge they gained in World War 2 when such skill was necessary for all. It is important that the younger generation develop the same self-sufficiency.”**

Michael Lake, Director General, Help the Aged

## International work

The Red Cross is well known for its emergency response role internationally, but we also invest significantly in Disaster Preparedness projects such as the construction of cyclone shelters, the creation of revolving funds, and food grain collection.

Our international first aid work is often a component of a Disaster Preparedness programme and it usually includes training in preparedness for mass casualties. The British Red Cross currently supports the International Federation of Red Cross and Red Crescent Society's First Aid in the Community work in two ways:

1) We provide long-term support to first aid programmes, either through 'traditional' first aid training or Community-Based First Aid. Traditional first aid focuses on acute first aid, including basic life-saving skills in response to injuries and accidents. The British Red Cross is also currently supporting this kind of project in the English-speaking Caribbean. Community-Based First Aid also addresses prevention and health education for conditions such as diarrhoea, fever and sexually transmitted infections. Community-Based First Aid usually includes health promotion around chronic conditions, which could include training on dehydration, basic nutrition, and malaria. Community-Based First Aid programmes increasingly include a psychological first aid component, addressing issues such as how to manage distress.

2) We also support the development of commercial first aid in the context of organisational development. Many National Societies are able to raise funds for humanitarian work through the delivery of commercial first aid training. The British Red Cross has recently provided support to the Nigerian Red Cross to develop their commercial first aid programmes.

The British Red Cross has supported a wide range of disaster preparedness (DP) programmes over the past five years, with a focus on Bangladesh, Uganda, India and DPRK (North Korea) and Nepal. Community-Based Disaster Preparedness programmes usually include the formation of Disaster Committees that receive training from the local Red Cross office in a variety of disaster management issues. This usually includes basic first aid training for the committee volunteers, who are provided with a community first aid kit. This education can make a huge difference in reducing injury and saving lives in an emergency.





## Chapter Two: Injuries and deaths in the UK: why first aid matters

The need for people to have first aid skills in the UK is not as immediately apparent as the need in those parts of the world beleaguered by conflict or prone to natural disasters. Yet we experience millions of accidents and injuries each year, ranging from cuts and scalds in the home to major trauma following road traffic accidents. In many of these cases, early first aid interventions could help reduce injury or save lives.



**“As Vice President of the Red Cross I felt it was important to take a first aid course – and the training I received has been invaluable on a number of occasions in my working life – at home and abroad. I have dealt with a badly sprained ankle, a severely lacerated arm, heatstroke, and motor car accident. You never know when you are going to need the training – and it could make the difference between life and death.”**

Angela Rippon, Broadcaster and British Red Cross Vice President



Here we review some of the statistics of accidents, diseases and deaths in the UK. The report focuses on those incidents where medical help is sought and where first aid could have affected the outcome of the accident or injury.

We have selected three sources of information to build our picture of injury and fatality in the UK:

- 1. Serious injuries that are dealt with by Accident and Emergency departments and their causes**
- 2. Admissions to hospital in the case of heart attacks and seizures**
- 3. Deaths and their causes**

We do not attempt to claim that first aid could definitively have saved each life or reduced each injury – the circumstances around each case are not detailed in the statistics collated. This chapter simply attempts to build a picture of the types and numbers of injury and illness that first aid could help and fatalities that first aid may prevent.

As we will see in the next chapter, it is vital to get professional medical help for serious injury and disease. However, appropriate first aid care before the emergency services arrive can help reduce injury, promote recovery and even save a life.

“The numbers involved are staggering... Accident and Emergency departments in the UK see an average of over 2,600 open wound injuries every single day, as well as over 2,400 bone injuries and 290 burns.”



### Types of injury seen at Accident and Emergency departments in the UK

The Royal Society for the Prevention of Accidents (RoSPA) conducts yearly surveys counting the types of injury seen in Accident and Emergency departments. These give us a picture of the numbers of injuries each year in the UK.

The RoSPA data shows a yearly average of 3 million attendances in Accident and Emergency departments as a result of the types of injury which first aid can help treat. The table below shows the average number of attendances per year by type of injury.

The numbers involved are staggering, not only highlighting the sheer numbers that our A&E departments deal with, but also the large volume of people in the UK that have to cope with injuries like burns, wounds and fractures. Accident and Emergency departments in the UK see an average of over 2,600 open wound injuries every single day, as well as over 2,400 bone injuries and 290 burns.

The RoSPA data also shows us that children make up more than a third of all attendances. Children and young people under 15 account for about 36% of open wound injuries seen at A&E, over 31% of bone injuries and 44% of burns.

**Table 1: Average annual attendances at A&E in the UK for selected injuries<sup>3</sup>**

Type of Injury	Number of attendances at A&E	Average A&E attendances under 15 year olds
Bone injury	879,000	274,000
Burn	107,000	47,000
Chemical injury	53,000	16,000
Injurious foreign body	35,000	11,000
Joint/tendon injury	715,000	207,000
Open wound	961,000	345,000
Other injury	42,000	7,000
Concussion with unconsciousness	19,000	8,000
Concussion: no/brief unconsciousness	167,000	97,000
<b>Total</b>	<b>2,978,000</b>	<b>1,012,000</b>

“More than 100 children and young people under the age of 15 attend A&E each day in the UK with a scald or burn injury.”

### Causes of injury seen at Accident and Emergency departments in the UK

The RoSPA data, analysed for causes of injury, gives us a more detailed impression of the kinds of accidents that people commonly experience in the UK. The table lists total numbers of A&E attendances for a selected number of causes of accidents. There are a huge number of injuries from falls and trips, an average of over 3,000 every day. Almost 40 people per day attend A&E due to incidents of choking.

Again, this data set shows that children form a large percentage of attendances at A&E departments. Children and young people under 15 years old form 39% of all allergic reactions, 81% of near drowning and submersion incidents, 37% of burns from fireworks and gas and 52% of injuries from falls of bicycles and similar. More than 100 children and young people under the age of 15 attend A&E each day in the UK with a scald or burn injury.

Table 2: Average annual attendances at A&E in the UK for selected causes of injury <sup>4</sup>

Cause	Average A&E attendances	Average A&E attendances under 15 year olds
Allergic reaction	600	200
Burn by hot object/appliance	27,200	15,800
Burn from explosion of gas/firework etc	2,900	1,100
Burn/scald by hot liquid/steam/gas	57,400	25,200
Choking on foreign body In throat/etc	14,500	4,100
Drowning/near drowning/submersion	400	400
Fall off/with (motor)cycle/horse/etc	182,800	95,600
Fall on same level (slip/trip/stumble)	1,111,400	379,600
Shock or burn from electric current	3,200	800
<b>Total</b>	<b>1,400,600</b>	<b>522,800</b>

**“We are delighted to support this British Red Cross awareness campaign to help more people learn life-saving emergency life support (ELS) skills as part of their first aid training. We know from our BHF Heartstart UK schools programme working with children at over 1200 schools that this is a great way to give them the opportunity to learn skills that can save lives. We believe that ELS training should be an integral part of the curriculum for every child.”**

Mary Richardson, Heartstart UK Manager  
at the British Heart Foundation (BHF)

### Heart attacks and seizures

Hospital admissions for heart attacks and seizures in the UK are high.

There are more than 110,000 hospital admissions for heart attacks and cardiac arrest each year in the UK – over 300 every day. There are more than 9 hospital admissions each day in the UK for cardiac arrest, which is usually caused by heart disease.

First aid can significantly impact on the health outcome for a casualty, and immediate CPR can double or even triple the chances of survival until discharge from hospital.

Table 3 – Average annual hospital admissions for heart attacks and seizures <sup>5</sup>

	England	Scotland	NI	Wales	Total
Heart attacks	80,100	17,800	4,700	5,700	108,400
Cardiac arrest	2,600	400 <sup>6</sup>	400	100	3,500
<b>Total</b>	<b>82,700</b>	<b>18,200</b>	<b>5,100</b>	<b>5,800</b>	<b>111,800</b>

#### Case study: **CPR after a heart attack**

Francis Chin, 23, a student at the University of Bristol, saved a life by performing CPR after a man collapsed with a heart attack. In between his studies and student social life, he volunteered for the British Red Cross:

“My duty at the Parade for military veterans in Bristol had seemed really quiet,” says Francis, “but in no time at all, an elderly gentleman in the parade had had a heart attack. I was suddenly carrying out CPR in front of 300 people. I had to perform the CPR with a colleague – it was the first time for both of us. It was really rewarding to have been able to put our Red Cross training into practice so quickly.”

The University of Bristol Red Cross group offers Bristol students the opportunity to get involved with the services the British Red Cross provides in the UK.

## Deaths

More than 12,000 people die each year in the UK from accidents and injury – more than 20 every day. On average, there are 9 deaths in the UK every day from transport accidents, and one death every day from exposure to smoke, fire and flames. First aid skills have the potential to save a life in these types of circumstances.

Heart attacks and seizures are one of the UK's biggest killers, with more than 180 deaths every day in the UK. As we will see in the next chapter, first aid can significantly affect the outcome for heart attack casualties.

Table 4 – Average annual deaths in the UK by selected external causes <sup>7</sup>

	England & Wales	Scotland	Northern Ireland	UK
Accidental threats to breathing	500	<50 <sup>a</sup>	<50	500
Transport accidents	2900	300	200	3400
Falls	2700	700	100	3500
Exposure to smoke, fire and flames	300	100	<50	400
Drowning	200	<50	<50	200
Poisonings	900	<50	<50	900
All accidents, including some not included in categories above				
All accidents	10600	1300	600	12500
Other non accidental causes				
Undetermined intent	600	100	<50	700

Table 5 – Average annual deaths in the UK by selected heart related causes

Cause	England & Wales	Northern Ireland	Scotland	Total
Heart attack	42,600	2,000	6,800	51,500
Cardiac arrest	100	<50	<50	100
Atrial fibrillation and flutter	2,900	100	300	3,300
Heart failure	10,200	400	600	11,200
<b>Total</b>	<b>55,800</b>	<b>2,400</b>	<b>7,800</b>	<b>66,000</b>



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## Chapter Three:

# First aid saves lives and reduces injury

In most life-threatening emergencies, such as severe bleeding after an accident or cardiac arrest, the first few minutes are crucial. After calling the emergency services, it is the first aid skills of those at the scene that can make a crucial difference by saving lives and reducing injury. This chapter reviews some of the ways first aid interventions can be effective.



**“I am happy to support these proposals to increase first aid education for young people. The importance of basic first aid skills was really brought home to me when I presented the BBC’s ‘999’. We looked into literally hundreds of emergencies and, in nearly every case, it was the first few minutes after an accident that were crucial. People at the scene really can help keep someone alive until the emergency services arrive.”**

Michael Buerk, Broadcaster and British Red Cross Ambassador

“Immediate CPR can double or even triple the chances of survival after a heart attack.”

## Resuscitation

### Heart attacks

Heart attacks are one of the UK's biggest killers. A heart attack is one of the circumstances where first aid interventions can be the most effective in terms of the outcome. Approximately 70% of all cases of cardiac arrest occur out of hospital, often in the victim's home.<sup>9</sup> The actions of those present could be crucial to the outcome for each patient.

Numerous studies provide support for the clinical effectiveness of cardiopulmonary resuscitation (CPR). Immediate CPR can double or even triple survival from the point the heart goes into ventricular fibrillation (the rapid, irregular twitching of the heart muscles that characterises cardiac arrest) to the patient's discharge from hospital.<sup>10 11</sup>

Research has found a direct correlation between the time from a patient's collapse to treatment, and survival rates. If a patient receives immediate CPR, defibrillatory shock, and definitive care, there is an estimated survival rate of 67%. With each minute that passes without CPR being delivered, the chances of survival decrease significantly.<sup>12</sup>

Surveys have shown that cardiac arrest patients who receive bystander CPR are three times more likely to be alive a month later than patients who do not receive it. The time interval between collapse and the start of CPR was a factor in the effectiveness of resuscitation, highlighting the need for early intervention.<sup>13</sup> Furthermore, research has shown that early CPR seems to protect against death in association with brain damage and damage to the heart tissue.<sup>14</sup>

Research has found that in witnessed cardiac arrests, receiving bystander CPR significantly increased late survival rates. In cardiac arrest events, where the response time of advanced life support by the emergency services exceeded 8 minutes, the beneficial effect of bystander CPR is most significant.<sup>15</sup>

A study in Austria also indicated that bystander basic life support and time to first defibrillation were significantly associated with good neurologic outcomes and resulted in fewer expenses used on in-hospital efforts.<sup>16</sup>

It should be emphasised that studies consistently show the importance of early defibrillation and attendance of health professionals in addition for the need for bystander CPR. This highlights the vital step of contacting the emergency services as soon as possible.<sup>17 18 19</sup>

**“Ideally, everyone in the UK should know how to give CPR. Bystander CPR doubles the chances of survival if someone has a cardiac arrest in the community. The best time to learn CPR is when still at school; young minds are particularly receptive, and lessons learnt are carried into adulthood.**

**Just this year, the Resuscitation Council (UK), in association with the European Resuscitation Council and following international debate, has simplified the guidelines for CPR. Now it is a case of starting chest compressions if someone collapses unconscious, and is not breathing. Simple – but the message has to be given and the techniques practised. Increasing first aid teaching in schools is the ideal way – then lives will be saved!”**

Anthony J Handley MD FRCP,  
Chairman BLS/AED Subcommittee  
Resuscitation Council (UK)



Case study: **Quick-thinking Glaswegian saved the life of his neighbours' daughter**

Alec McTaggart was at home in Maryhill, Glasgow on 25 February when neighbour Ian Thompson banged frantically on his door. He was carrying his one-year-old daughter Megan, who was having a convulsion.

Alec, a first aid volunteer for 14 years, said: "We now know that Megan was suffering from a febrile convulsion, which can happen when a child has a high temperature.

"As Ian brought Megan in, her eyes rolled back and she stopped breathing and turned blue. I immediately told him to call an ambulance while I checked Megan's circulation and breathing then began ventilating her using rescue breaths.

"It seemed like a lifetime, but after two minutes Megan came round and started to cry – the sweetest sound I have heard in a long time. It was only then that the emotions started and my hands began shaking like a leaf – all I had been thinking about while I was helping Megan was that I must save her."

Megan's mum, Libby McArthur, said: "We are just so thankful to Alec for being there and saving Megan's life – no words can express how grateful we are."

Since the incident, Megan – who had been suffering from a fever – has received hospital checks and is now doing well.

Alec is convinced the incident highlights the need for people to learn first aid. "Not knowing what to do in situations like this can be a matter of life or death, so I urge people to take a course that will teach them how to deal with such an emergency."

**"There is no doubt that first aid saves lives. Nobody knows when they made need those skills to help family or friends. I am certain that teaching children first aid is the best way to ensure that first aid is available when required. We are teaching citizenship and what could be evidence of better citizenship than helping a person who is ill or injured. I have taught many children first aid and have never had any concerns about them using those skills in real life. The bottom line is that I have ensured that my children know first aid."**

Professor Matthew Cooke, Professor of Emergency Medicine at Warwick Medical School

**“I believe this is a hugely positive initiative, it will not only give young people the skills necessary to give them the confidence to deal with a potentially life threatening situation but also help to build their sense of worth and respect for others and contribute to the concept of good citizenship.”**

Andrew Freemantle MBE, Chief Executive,  
Royal National Lifeboat Institution (RNLI)

## Near-drowning

Pre-hospital treatment is important in near-drowning incidents and likely to significantly affect patient outcome. Drowning is a common cause of accidental death in Europe, and is the leading cause of accidental death for young men in Europe, with alcohol being a contributory factor in up to 70% of drownings.<sup>20</sup> Layon et al. note that the paediatric groups most likely to suffer near drowning in the USA are toddlers and adolescent boys, “because they will take risks, frequently on a dare from friends.”<sup>21</sup>

The most important and detrimental consequence of drowning is hypoxia (deficiency in

the amount of oxygen reaching body tissues). The aim of resuscitation following drowning is to prevent hypoxic damage to the heart and brain, by increasing ventilation and oxygenation. Victims who have spontaneous breathing and circulation when they reach hospital usually recover with good outcomes.<sup>22</sup>

Early CPR in near-drowning incidents is vital – about four-fifths of children and most adults who do survive will make their first respiratory gasp within five minutes of rescue.<sup>23</sup> The best management of the near-drowned patient includes rescue, extraction, resuscitation, transport, emergency treatment

and intensive care treatment, with basic first aid a vital contributory factor in the recovery of the casualty.<sup>24</sup>

Effective CPR has been found to be valuable in the management of near-drown victims.<sup>25</sup> Conversely, a lack of CPR at the scene or the need for greater than 20 minutes of resuscitation, as well as submersions greater than 10 minutes, tends to lead to poor outcomes for the casualty. Prevention of death by drowning is partly dependent on immediate and effective CPR.<sup>26</sup>

### Case study: Red Cross staff member saved a drowning boy's life

Wayne Morgan, a trained first aider, was out cycling with his daughter on 16 August in the Rhymney Valley in South Wales when he noticed a group of distressed children by a pond. They explained that their friend, an eight-year-old boy, had gone swimming and disappeared beneath the water.

The pond was at the site of a disused coal mine, and Wayne grabbed a rubber ring as a safety precaution and entered the water. Guided by his daughter on the shore, he found the unconscious boy floating just below the surface of the murky water. Grabbing hold of him firmly, he swam back to dry land.

Wayne said: “The boy wasn't breathing so I gave him immediate mouth-to-mouth resuscitation. After about forty seconds he started coughing and spluttering, and his eyes started to focus. It was a massive relief.” Wayne's actions saved the young boy's life. A woman passer-by called for an ambulance and, after a night's observation in hospital, the boy made a full recovery.

The incident provided a powerful reminder of how valuable first aid skills can be in an emergency situation. Wayne said: “Everything I'd done in training just kicked in. It was like I was on auto-pilot – I just did what I had to do.”

“If a person’s airway is blocked, and they are not able to breathe, it can take as little as 4 minutes for them to die.”

### **Airway obstruction and choking**

Airway obstruction is an acute emergency, which can rapidly lead to death. If a person is not able to breathe, it can take as little as 4 minutes for them to die. The fact that the muscles relax when a person is unconscious means that there is a tendency for the head to fall forwards and the tongue to fall back into the throat and potentially block off the airway. Clearing someone’s airway can be as simple as tilting an unconscious patient’s head backwards to ensure the tongue is not blocking the airway.

It is important to place an unconscious person who is breathing in the recovery position to ensure the airway stays open and any bodily fluids drain out of the mouth rather than back into the throat. This is achieved by placing them on their side to keep them stable, with their airway open. This is particularly vital if the unconscious patient is likely to vomit (for instance, if they have been consuming alcohol) or if blood is present in the mouth.

A foreign object in the airway, such as food, can cause choking and can become serious if bystanders do not take swift action. Simple techniques such as back blows and abdominal

thrusts (also known as the Heimlich manoeuvre) have been found to be successful emergency measures in removing food blocking the airway.

A study into paramedic reports of choking children by the University of New Mexico found that, despite the relative simplicity of responding to choking incidents, 15% of the casualties’ airways were not cleared before emergency services arrived. Coins and food were the two most common foreign bodies. The study concluded that their results support first aid training for new parents and the general population.<sup>27</sup>

#### **Case study: British Red Cross volunteer helps a road traffic accident casualty to breathe**

Philip Roberts was driving down the M6 motorway early in the morning when he came across a serious road accident. A truck had crashed into a car, driving it off the motorway and into a roadside bank. As the first person on the scene, Philip made sure it was safe to approach the vehicle and found an unconscious woman inside, slumped forward and with her airway blocked. As another driver approached, he shouted for them to call the emergency services.

Then Philip acted fast. He recalls: “Climbing into the car, I immediately lifted the woman’s head and opened her airway, so she would be able to breathe. I then kept my hands on her head to keep her neck steady, as the crash could have caused spinal injury. When the emergency services arrived, they asked me to stay inside the car and maintain the casualty’s airway while they cut off the roof of the car.” By the time the woman was freed from the mangled vehicle, half an hour later, she was starting to regain consciousness. Philip is convinced the incident demonstrates the importance of knowing basic first aid. He said: “The simple first aid techniques I used can be learnt in five minutes, yet they probably saved the driver’s life. Surely that’s a worthwhile way to spend five minutes?”



## Burns

Burns are a significant cause of injury and death. There are still a significant number of deaths from burns each year in the UK – more than 4 deaths on average per week in England and Wales alone.<sup>28</sup> First aid measures significantly improve clinical outcomes.

Studies have shown that cooling is an effective means to reduce tissue damage and increase wound healing following scalds and burns.<sup>29,30</sup> A study at University College Hospital in Galway, Ireland, found that, out of 63 burns patients, only less than a quarter had employed the correct first aid principles, and only 20% of the patients who sustained burns at work reported that appropriate first aid was available in the workplace.

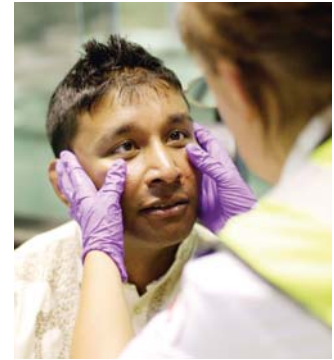
The study goes on to suggest a public health education campaign would have a positive effect on the outcome of a burn injury.<sup>31</sup>

Research on burns injuries in children has demonstrated that immediate cooling results in fewer deep burns, and can reduce the need for a skin graft by as much as 32%. This study concluded that early cooling will prevent a significant percentage of superficial burns from progressing to deep burns.<sup>32</sup>

There is also evidence that, as well as reducing injury, first aid cooling of the burn results in earlier healing of the wound and better cosmetic outcome.<sup>33,34</sup>

**“Young people are able to effectively deliver life-saving first aid and are generally highly motivated and enthusiastic about gaining first aid knowledge and skills. Including first aid in the school curriculum would not only make a major contribution to the life skills set for young people but also increase the chances of saving life and reducing morbidity by taking appropriate action when faced with an emergency situation.”**

Mr Rudy Crawford MBE BSc (Hons) MB ChB FRCS (Glasg)  
FCEM Consultant in Accident & Emergency Medicine & Surgery,  
Glasgow Royal Infirmary



Case study: **Impact of a public health campaign on first aid for burns**<sup>35 36</sup>

A four-month study was conducted in New Zealand of consecutive burn patients in one hospital. Patients were interviewed to determine whether initial burns first aid treatment was adequate or inadequate.

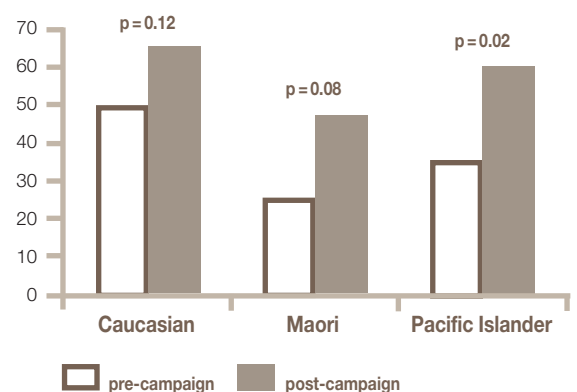
The results showed that 40.5% of the 121 patients received adequate first aid, and 59.5% did not. The results were further analysed by ethnic background and it was found that 50% of Caucasians received adequate BFAT, compared with 25% Maori and 33% Pacific Island people. The study also showed that only 6.6% of patients who received adequate burns first aid treatment required skin grafts, compared to 19.3% for those who received inadequate first aid treatment.

The study recommended a public education strategy, and this was carried out using advertisements on television and radio, billboards, articles in local newspapers and magazines. Maori and Pacific Island language versions were used in addition to English. The campaign message specifically highlighted common causes of burn injury in the home and their avoidance, and also explained what appropriate first aid measures should be taken in the event of an accident.

The results were significant – 76% of patients interviewed after the public education strategy were aware of the campaign. Pre-campaign, 40% of patients were given adequate first aid compared to 59% post-campaign.

The greatest improvement between inadequate and adequate first aid treatment occurred in children from 30.4 pre-campaign to 62.5% post-campaign, Pacific Island patients from 33 to 61% and Maori 25 to 48.2%.

**Fig. 1 – Proportion of patients receiving adequate first aid (BFAT) by ethnicity.**



**“Injury is one of the most important causes of acute illness, years of life lost and long-term disability in the UK and worldwide. It carries one of the highest costs in both human and economic terms and should therefore hold a high government priority. The BMA has consistently supported the promotion of public health and this is reflected in our policy to call for the inclusion within the national education curriculum of at least one hour per year of compulsory education in accident prevention, resuscitation and first aid for all children in full-time education.”**

Tony Bourne, Chief Executive, British Medical Association (BMA)

## **Trauma (bleeding and injuries to bone, muscle and ligaments)**

### **Severe bleeding**

Severe bleeding, if untreated, can result in shock and can even prove fatal in some cases. In cases of severe blood loss, prompt action can ensure that the situation does not deteriorate and may contribute to a significant improvement in the person's condition. Compression and elevation of the wound above the level of the heart is vital.

Worldwide, the impact of wounds and associated severe bleeding on human health is high. The United States Army Institute of Surgical Research note that haemorrhage is responsible for 30 to 40% of trauma mortality. Between one third and half of these deaths occur during the prehospital period.

Among those who reach care, early mortality is caused by continued severe bleeding, the blood failing to coagulate, and incomplete resuscitation. Improvements in early haemorrhage control and resuscitation appear to have the greatest potential to improve outcomes in severely injured trauma patients.

Studies have shown that compression effectively stems bleeding wounds.<sup>37,38</sup> Some studies have also suggested that, even in the case of traumatic amputation, compressive dressings for wounds were the most effective method of stemming bleeding, resulting in better patient outcomes.<sup>39</sup>

### **Case study: motivation to learn first aid**

Joy Davidson, 17, from Brixton, decided to take a first aid course after her brother was killed in a shooting last year. She has been learning basic life-saving techniques such as resuscitation. Joy said: “Perhaps if the people my brother was with had first aid skills, things could have been different.”

**“St. John Ambulance fully supports the recommendation for every child to learn first aid as part of the national curriculum. We aim to train 80 thousand young people in schools in 2006 using St. John Ambulance trainers and materials. We realise, though, that this is just the tip of the iceberg and we welcome all support that would mean empowering as many children, young people and adults as possible by teaching first aid skills. Our vision is that everyone who needs it should receive first aid from those around them and that no-one should suffer for the lack of trained first aiders.”**

Elaine Howlings, Training Manager, St. John Ambulance

### **Injuries to bones, muscles and ligaments**

Bone fractures commonly occur following trauma. Prevention of movement at the site of a suspected fracture helps to avoid further injury. Fractures may be associated with severe bleeding, which can result from several sources of haemorrhage, and therefore attempts should be made to stabilise bleeding, as well as treating the broken bone. Untreated fractures can lead to hypovolaemic shock (extremely low blood pressure) making early first aid interventions even more important in improving outcomes for fracture patients.<sup>40</sup>

The use of cold therapy such as an ice pack following a sprained ankle is supported by studies that show it to be effective in minimizing oedema (swelling).<sup>41</sup> Early cooling of the injury has also been shown to yield earlier complete recovery than later treatment or heat therapy, and to increase the rate of recovery.<sup>42</sup>

#### **Case study: coping with severe bleeding**

A Red Cross trained office worker helped save a road accident victim's life – by tying her gym trousers around his head.

Anita Kelly, a 20-year-old administrator, had done a four-day first aid at work course, teaching the essentials of first aid including how to deal with concussion, head injuries and how to administer basic CPR.

Almost a year after she took the course, Anita was witness to a road traffic accident as she left her office in Salford. She said: “There was a terrific bang as the man was hit by a car and thrown up on to the window screen.”

“There was blood everywhere from a severe gash to his head and his condition was deteriorating quickly. I was carrying my gym kit, so I got out my tracksuit bottoms and tied them around his head to compress the wound and reduce his blood loss.”

Anita ensured the man's airway was clear and that someone had called an ambulance. She then stayed with him for the next 15 minutes, checking his breathing and reassuring him, until the ambulance arrived.

Of her speedy reaction to the incident, Anita said: “It was good to be able to help, without the skills you are just standing there helpless.”



## Chapter Four:

# Building a generation of life-savers: first aid in schools

As we have seen, there are millions of injuries and illnesses each year in the UK, ranging from cuts and scalds in the home to major trauma following road traffic accidents. In many of these cases, early first aid interventions could help reduce injury or save lives.

The British Red Cross believes that all children would benefit from being given the chance to learn first aid at school. The first aid content in curricula varies in England, Wales, Scotland, and Northern Ireland. There are a couple of good examples of first aid provision on the curriculum in a few key areas. However, nowhere is there a clear and comprehensive programme for first aid education in the curriculum.

In addition, in the English and Scottish curricula, the limited provisions that exist are optional rather than a core part of learning for young people. This means that first aid education is uneven and in some cases, non-existent.

We recognise that schools already have to cover a wide array of different subjects, so our proposals suggest a range of areas where first aid could be taught across the curriculum. We ask governments to consider enhancing and supporting first aid provision in UK schools, by ensuring that the **8 first aid essentials** outlined below are included in the core curriculum.



### **The benefits of first aid education**

We believe that first aid is a basic life skill, which can help children and young people as they make the transition from dependence to independence. First aid skills become increasingly relevant to young people as they approach their adult years. Young people may take on more responsibilities like babysitting and learning to drive, may be more prone to risky behaviours such as drink and drug misuse and are likely to spend more time away from adult supervision.

First aid education can also help young people to think about the potential consequences of their actions, health and lifestyle choices, and also about how best to respond in an emergency as a humanitarian citizen. First aid training increases the likelihood of bystanders stopping and assisting those in need.<sup>43</sup> Furthermore, there is a clear relationship between the level of first aid training and the quality of first aid provided by bystanders in a prehospital setting.<sup>44</sup> The wider questions about how and if to act and offer

help to someone in need can enhance communication skills and contribute to respect for life and community.

The British Red Cross already delivers first aid education to children and young people across the UK. In 2005 we delivered first aid education to over 22,000 5-18 year olds, many of whom were in the school environment. Our experience has helped us to understand that the fundamentals of first aid are easy to learn and can be accessible to children from diverse backgrounds and with different experiences. Basic first aid skills can be learnt in a few hours.

**“Learning basic things which could save one of my friends’ lives gives me both confidence and satisfaction.”**

Scarlett, 15, Skipton Girls High School, Yorkshire

### What first aid should children and young people learn?

First aid education can cover a huge variety of skills and scenarios. We have focussed on the eight most important skills, or those injuries or illnesses that are most common. If these topics were covered, pupils would feel competent and confident in administering basic first aid.

The **8 first aid essentials** include:

- 1. Dealing with accidents –**  
pupils should learn that, in an emergency, assessing danger and keeping yourself safe is fundamental. They should also learn how to call for the emergency services, and what information they will be asked for.
- 2. Unconsciousness & resuscitation –**  
pupils should learn to check and clear the airway of an unconscious person, and how to put someone in the recovery position to prevent asphyxiation. Pupils should learn how to check someone's breathing. They should learn the basics of cardiopulmonary resuscitation (CPR) and be able to deliver chest compressions and rescue breaths.
- 3. Choking –**  
pupils should know how to check the severity of choking, and how and when to use back blows and abdominal thrusts (Heimlich manoeuvre).
- 4. Bleeding & shock –**  
pupils should understand the importance of compression, elevation of the wound above the heart and bandaging. They should also be able to identify the symptoms of shock and know how best to respond.
- 5. Burns & scalds –**  
pupils should learn to immediately cool burns with cold water, and what not to do (such as covering with woolly dressings).
- 6. Specific injuries –**  
pupils should know the symptoms of a break or fracture of the bone, and understand how best to respond, including how to avoid further damage. Pupils should know how to treat a sprain or strain, including the importance of rest, and the cooling and elevation of the injury.
- 7. Specific illnesses –**  
pupils should explore how to react to particular scenarios, which could include heart attacks, diabetic control, asthma attacks, Meningitis or epileptic seizures.
- 8. Emotional and social –**  
pupils should explore how to react to stress in the event of an emergency or illness, and how best to offer emotional support. Pupils should explore the social dimension of helping others in need, humanitarianism and what responsibilities citizens have in society. They could also discuss and question personal prejudices, and what these can mean in a first aid context.



### How should first aid be delivered?

Schools that currently teach first aid use a variety of different methods. We support the continuation of the flexibility for schools to choose the most appropriate method of delivery for their pupils. The delivery options include:

**Teachers delivering first aid education** themselves, either through resource packs and materials, or through being trained during teacher training or continuing professional development. There are resources available to teachers to enable them to deliver first aid education, including Red Cross and St John Ambulance materials, and the HeartStart programme run by the British Heart Foundation that focuses on CPR. In Northern Ireland, the Medical Students International Network (MedSIN), an independent student organisation, deliver the ABC for Life scheme in which medical students instruct primary school teachers in basic resuscitation procedures.

The British Red Cross is currently developing a resource pack to enable teachers to deliver simple

first aid education without previous training. The pack will make first aid accessible and relevant and will give young people both the skills and the confidence to use them so they become advocates for learning first aid. The resource pack will include a CD, manikin, and teachers' notes booklet. The CD will contain all the lesson plans and activities such as group discussions, video clips, drama and role plays. Video clips will demonstrate exactly how to perform key activities, such as putting someone in the recovery position, which means that teachers won't have to be experts themselves.

**External organisations** may also be invited into the schools to deliver first aid education. This currently happens with voluntary sector organisations like the British Red Cross, sometimes in conjunction with the emergency services. We believe that the voluntary sector organisations, among other bodies, can continue to play a crucial role in delivering first aid education, whether directly or by producing resources. We ask government to help create a supportive environment for this education in all UK schools.

### The British public and first aid education in schools

Research by Ipsos MORI shows that the British public overwhelmingly support first aid education in schools for children aged 11 and over, with 93% supporting such a proposal. Three quarters of people in Britain strongly support the teaching of first aid to children of this age group at school.<sup>47</sup>

**“Most of us like to talk about helping others, but here’s a way to put those words and thoughts into action: by learning basic first aid. After all, what could be more fundamental than being able to save someone’s life?”**

Trisha Goddard, TV presenter

**“Yes, (first aid) should be taught, and maybe to teachers as well. Teachers are in charge of 30 pupils at a time, and they are made aware of medical conditions, but I would say that we wouldn’t be too proficient in an emergency situation. I would say (first aid) is pretty important for pupils and staff.”<sup>45</sup>**

Teacher

**“I think (first aid) should be taught. It is a life skill. We concentrate a lot on academic rigour, but the important things can be neglected sometimes... aspects could be included in biology.”<sup>46</sup>**

Teacher





### Schools in England

Currently, there is no requirement for schools in England to teach any first aid. There are some limited mentions of first aid on the non-statutory parts of the national curriculum for England:<sup>48</sup>

In the non-statutory citizenship guidance for 7-11 year olds (key stage 2) it states: “Pupils should be taught school rules about health and safety, basic emergency aid procedures and where to get help.” There is no further mention of first aid, or the emotional and social issues surrounding helping people in an emergency, from the ages of 11-16 (key stages 3 and 4).

In Personal and Social Health Education, which is also non-statutory in England, there are some additional mentions of first aid, but they are still very general and optional guidelines. At key stage 2, “Pupils should be taught school rules about health and safety, basic emergency aid procedures and where to get help,” at key stage 3, “Pupils should be taught basic emergency aid procedures and where to get help and support,” and at key stage 4,

“Students should be taught to recognise and follow health and safety requirements and develop the skills to cope with emergency situations that require basic aid procedures, including resuscitation techniques.”

The Government’s publication of *Every Child Matters* in 2003 placed a renewed emphasis on the health and well-being of children and young people from birth to 19 years of age. The aim of the paper is for every child, whatever their background or their circumstances, to have the support they need to “be healthy, stay safe, enjoy and achieve, make a positive contribution and achieve economic well-being”.

First aid clearly fits in with the agenda to be healthy and stay safe, particularly being safe from accidental death and injury. First aid education would also support the aim of enabling children and young people to make a positive contribution, particularly in supporting the community, engaging in positive behaviours and dealing successfully with significant challenges.

## Recommendations

We suggest that further scope exists to integrate the **8 first aid essentials** in both statutory requirements and non-statutory guidelines from key stages 2-4.

**Science:** This presents an ideal opportunity to educate young people about injury, illness and basic first aid, particularly through the biology syllabus, which deals with anatomy and physiology. The first aid skills most suited include unconsciousness, resuscitation, bleeding and shock, fractures and burns and scalds.

**Physical education:** First aid to deal with sports injuries (including fractures, sprains and strains) could be taught as part of PE. Where swimming is taught at school, resuscitation should be taught at an early stage.

**Citizenship:** This is an ideal subject to discuss the wider emotional and social issues surrounding first aid and emergencies, including what it means to be a humanitarian citizen.

**PSHE:** Although resuscitation is already mentioned, we would encourage government to expand the guidelines to include the **8 first aid essentials** outlined above.

### Case study: **first aid and babysitting**

Shahina Khatun, from Stepney Green, was 16 when she studied first aid as part of a babysitting course delivered by Tower Hamlets Summer University in east London. Members of British Red Cross Hackney Centre demonstrated relevant first aid skills.

Shahina says: “Before I did the course, I thought babysitting was just about looking after kids and putting them to bed. I wasn’t really aware of dangers around the house. But we learnt what to do if children fall over, get burns or scalds, and how to handle other emergencies. The supervisor also demonstrated on a model how to resuscitate a choking baby and how to get something out of its mouth.”

It wasn’t long before Shahina was using her first aid knowledge in a real-life emergency. She recalls: “Not long afterwards, I had an incident in my house when my niece, who was eight months old, got a sweet stuck in her throat. There were two other children with me but none of the other adults were home and I was looking after them.”

“I did what I’d been told to do – it came straight into my mind. I had to hold my niece over my arm and pat her gently on the back three times and the sweet just came out. Afterwards, I was very shaky and surprised and I was like, “Wow, I actually learnt something!”



### **Schools in Scotland**

The current national guidelines for the curriculum 5-14 set out by the Scottish Executive Education Department (SEED) advise teachers on content and attainment targets, although there is no statutory requirement to follow them.

Currently, there is limited mention of first aid in Health Education. The general guidance states that an effective health education programme should “aim to develop important knowledge, understanding and skills that may play a part in the decisions young people make about health.

For example, understanding the correct recovery position in the event of an accident and having the skills to carry it out could help save a life.” It also mentions first aid skills and the recovery position in their illustration of best practice for programmes of study.

In the attainment targets for Health Education, there are helpful sections on how to get help (dialling 999, show ways of getting help in the event of an accident) for younger pupils, but this is not followed up by specific first aid learning in later years.

There is no mention of first aid in Personal and Social Development

or in the Science section of Environmental Studies.

Increased first aid education sits very well with the renewed emphasis of safety, health and citizenship within the education system in Scotland. The curriculum in Scotland is currently being revised through A Curriculum for Excellence, guidance for which is being developed and is due for publication in June 2007.

A significant emphasis is placed on the safety and health, which is in line with the Scottish Executive’s vision for children and young people that they should all be valued by being “safe, nurtured, achieving, healthy, active, included, respected and responsible.”

A Curriculum for Excellence aims to “enable all children to develop their capacities as successful learners, confident individuals, responsible citizens and effective contributors to society.” It seeks to ensure that children and young people acquire “the full range of skills and abilities relevant to growing, living and working in the contemporary world.” Education for Citizenship, one of key parts of the new curriculum, is about “learning to be a good citizen now – and having opportunities to exercise that citizenship – as well as learning to be an effective citizen in

the future.” One of the objectives of the Education and Young People portfolio for the period 2005-08 is to ensure children and young people are safe and do not threaten the safety of others. Ensuring children and young people know basic skills to reduce injury and even save lives can help to achieve these goals.

**“I am continually amazed at how a practical skill like first aid can build a young person’s self confidence, communication skills, assertiveness, and perhaps for the first time make them feel they are playing a valuable role. This is an area of education where every child can achieve and every community can benefit.”**

Mairi Allan, Head of Schools & Community Education, British Red Cross

## Recommendations

**Health Education:** This subject provides an appropriate background for first aid skills to be learnt. The guidance states that, “Crucial to young people’s personal and social development are fundamental qualities and dispositions that will promote change and enable pupils to take action, not just in relation to their own health but also by contributing to the maintenance of a healthy environment and playing an active part in their community.” These qualities include “respect and caring for self.” “respect and caring for others” and “a sense of social responsibility.” We recommend the attainment targets include the **8 first aid essentials** outlined above.

### Personal and Social

**Development:** One of the aims of personal and social development is to help pupils develop life skills to enable them to participate effectively and safely in society. There is considerable scope to expand the guidelines to include the **8 first aid essentials** outlined above.

### Science and Environmental

**Studies:** There are general health and safety guidelines in the Science section of Environmental Studies, but no specific mention

of first aid. Relevant subjects to include (particularly in the Processes of Life strand) are unconsciousness, resuscitation, bleeding and shock, fractures and burns and scalds. There is also some scope in Social Subjects, particularly in the People and Society strand, to discuss responsibilities in society in the context of emergencies, and the meaning of humanitarianism.

**Physical education:** There is currently no specific mention of first aid in PE, other than an attainment target to “show an ability to adapt quickly and effectively to unforeseen or quickly changing situations, e.g. simulated water rescue” for 11-14 year olds (P7-S2). We recommend that, where swimming is taught at school, resuscitation should be taught at an early stage. First aid to deal with sports injuries (including fractures, sprains and strains) could also be taught as part of PE.



### **Schools in Wales**

The key difference with the curriculum in Wales is that Personal and Social Education (PSE) is a statutory requirement for schools, which gives greater weight to the first aid component set out in the national framework.

The framework, under the Department for Education Lifelong Learning and Skills (DELLS), sets out 10 aspects of PSE education, many of which provide a supportive context to first aid education. These include the Community aspect of PSE in which pupils “should be encouraged and equipped to demonstrate commitment to community life in participation, service and action which promotes the well-being of that community.” The Emotional aspect also underlines the importance of understanding and managing the emotions, stating that it “improves mental health by increasing our ability to cope with conflict, stress, loss and change as well as providing motivation in different tasks.”

The Physical aspect explicitly includes first aid skills:

“The ability to keep oneself and others safe is basic to physical development. The context for this includes the road, water, the home and other environments. It includes basic first aid skills and discussion of different aspects of abuse. Threats to the safety of children and young people also include those from the use and misuse of substances which embraces tobacco, alcohol, solvents and other legal and illegal drugs.”

There is specific provision in key stages 3 and 4, stating that PSE provision should enable pupils to “administer basic first aid.”

## Recommendations

The national framework in Wales already provides for some “basic first aid” to be learnt through PSE. We believe that further scope exists to integrate the **8 first aid essentials** in both statutory requirements and non-statutory guidelines from key stages 2-4.

**Science:** This presents an ideal opportunity to educate young people with some basic first aid skills. In Wales, first aid education would be well suited to Life Processes and Living Things, under Humans and Other Animals. Key stage 3 includes circulation, respiration and health issues, and Key Stage 4 includes circulation and the nervous system. The first aid skills most suited include unconsciousness, resuscitation, bleeding and shock, fractures and burns and scalds.

**Physical education:** No first aid is currently mentioned in PE in Wales. We believe it could be included under Health-related exercise, where there is mention of relevant rules and safety procedures that apply in different activities. First aid to deal with sports injuries (including fractures, sprains and strains) could be taught as part of PE. Where swimming is taught at school, resuscitation should be taught at

an early stage. First aid could be explicitly included in the swimming section in key stage 2, which currently states that pupils should be taught the principles and skills of water safety and survival.

**PSE:** We are pleased to see that basic first aid is already mentioned in a statutory subject, but would encourage government to expand the guidelines to include the **8 first aid essentials** outlined above.

**Sustainable development and global citizenship:** This is a non-statutory subject in Wales, but it is still an ideal focus for discussing the wider emotional and social issues surrounding first aid and emergencies, including what it means to be a humanitarian citizen. Specific discussion around how and when to help in an emergency could be included under citizenship and stewardship, which includes “recognising the importance of taking individual responsibility and action to make the world a better place.”



**“I know how receptive kids are to learning about health issues from my time working with young people. I think it is incredibly important to learn basic first aid skills like resuscitation, how to control bleeding, and how to make sure an unconscious person’s airway is open so they can breathe. These are life skills that not only everyone ought to know, but that may save a friend or family member’s life. I am delighted to be supporting this campaign.”**

Dr David Bull, TV presenter and British Red Cross Ambassador



### Schools in Northern Ireland

The curriculum in Northern Ireland has been revised to include a new focus on Learning for Life and Work, which includes statutory provision for Personal Development and Local and Global Citizenship. The new guidelines will be rolled out over the next four years. One of the key elements is personal health, which allows for some first aid provision.

First aid is included in the proposed Personal Health key concept in Personal Development. This requires pupils to “develop an awareness of emergency first aid procedures” as one of the learning outcomes. It also states that young people should have opportunities to “develop preventative strategies in relation to accidents in the home, school and on the road, for example...knowing what to do in the event of cuts, burns, fire and emergency first aid etc.”

### Recommendations

**Personal Development:** This is an ideal place for including first aid, and we welcome the fact that this statutory element of the revised Northern Ireland curriculum mentions cuts and burns specifically, as well as emergency first aid more generally. We would recommend that the guidelines be expanded to include the **8 first aid essentials** outlined above.

The new guidelines for Personal Development also allow scope for discussion around personal values and beliefs, and therefore provide an opportunity for discussing the wider emotional and social issues surrounding first aid and emergencies, including what it means to be a humanitarian citizen.

**Science:** There is scope in the Science strand, and particularly in Organisms and Health and Healthy body and mind, to learn about basic first aid.

**“Without doubt it is in the best interests of our 280,000 Members, whatever their medical condition, for as many people as possible to be trained in simple but effective first aid. Our experience in South Africa shows clearly that the inclusion of first aid in the school curriculum not only increases awareness and use of the MedicAlert emergency identification system, crucially it saves lives.”**

Jeanette Allen, Chief Executive, MedicAlert

The topics most suited include unconsciousness, resuscitation, bleeding and shock, fractures and burns and scalds.

**Physical Education:** First aid is not mentioned specifically in PE in the revised curriculum guidelines, however there is ample opportunity for it to be included as part of Developing pupils’ Knowledge, Understanding and Skills which includes understanding the cardiovascular and musculoskeletal systems and developing their knowledge of safe practices and procedures. First aid to deal with sports injuries (including fractures, sprains and strains) could also be taught as part of PE.

In key stage 2 of the new guidelines, “personal survival skills” are mentioned in the context of swimming. We recommend that, where swimming is taught at school, resuscitation should be taught at an early stage.

#### Case study: **first aid on the curriculum in other European countries**

Other European countries already have first aid on the school curriculum, including France, Denmark and Norway.

In France, first aid will be included on the curriculum in both primary and secondary schools from the 2006 school year. At primary school, children will be taught about general safety rules and simple first aid principles. At secondary school, pupils will learn about preventing accidents, the role of the emergency services and will gain further first aid skills. First aid education in French secondary schools will be divided into eight modules, including prevention, choking, bleeding, unconsciousness, blocked airway, cardiac arrest and trauma.

In Denmark, first aid is taught to pupils from the age of 6 to the age of 15 (grades 1 to 9). The courses are mainly taught in the context of road safety. Children between the ages of 6 to 8 are taught about dealing with an injury, calling for help and reassuring an injured person. From the age of 8 to 11, pupil learns about providing basic first aid, including how to deal with bleeding, and comforting the casualty. Pupils from 12 to 15 years old are taught additional first aid skills, including CPR.

In Norway, first aid is also part of the curriculum for primary and secondary school pupils. First aid education is provided in schools both by the teachers and by instructors from organisations such as the Norwegian Red Cross. Some teachers receive first aid training, and others use a comprehensive first aid manual. From the age of 6, children are taught how to recognise a serious accident or injury, how to alert the emergency services and about opening an airway and the recovery position. Pupils are taught additional basic first aid skills in primary and secondary school, including CPR, how to deal with choking, heart attacks, burns, cuts, fractures and poisoning. The programme also includes a specific section on coping with road traffic accidents.

# References

- 1 Ipsos MORI conducted face-to-face interviews with the British public in respondents' homes. 1,960 adults (15 and over) were interviewed using CAPI (Computer Assisted Personal Interviewing) between 28 July and 3 August 2006. The data were weighted to the current GB population profile.
- 2 The remit was expanded in May 1919, when the League of Red Cross Societies was formed (now the International Federation of Red Cross and Red Crescent Societies).
- 3 Royal Society for the Prevention of Accidents (RoSPA) data 2000-2002
- 4 Royal Society for the Prevention of Accidents (RoSPA) data 2000-2002
- 5 There is a small difference in classification between England and Wales and Scotland and Northern Ireland. The first group uses admissions as their measure of activity, the second use discharge. They are, though, almost identical in practice, the only difference being when the patient is counted. Hospital Episode Statistics, Office of National Statistics, 2002-2004
- 6 Estimate as data unavailable, New Policy Institute (NPI)
- 7 There are challenges in producing comparable data for the whole UK, as Northern Ireland and Scotland record causes of death resulting from injury differently to England and Wales. For example, whereas England and Wales record both the cause (for instance, a road traffic accident) and the injury (for instance, a head injury), Northern Ireland and Scotland only record the former. The table below looks at average annual deaths caused by accidents and other external causes from 2002 to 2004. Sources: England & Wales: Office of National Statistics (ONS), Scotland: General Register Office, Scotland, Northern Ireland: NI Statistics and Research Agency, Demography Branch.
- 8 Estimate as data unavailable, New Policy Institute (NPI)
- 9 Handley AJ. 1997. Basic Life Support. *British Journal of Anaesthesia*, 79: 151-158.
- 10 Valenzuela TD, Roe DJ, Cretin S, Spaite DW, Larsen MP. Estimating effectiveness of cardiac arrest interventions: a logistic regression survival model. *Circulation* 1997;96:3308-13.
- 11 Holmberg M, Holmberg S, Herlitz J, Gardelov B. Survival after cardiac arrest outside hospital in Sweden. *Swedish Cardiac Arrest Registry. Resuscitation* 1998;36:29-36.
- 12 A study of 1,667 cardiac arrest patients on a cardiac arrest surveillance system in King County, Washington. With each minute that passes without CPR being delivered, the chances of survival decrease by 2.3%. Larsen MP, Eisenberg MS, Cummins RO, Hallstrom AP. Predicting survival from out-of-hospital cardiac arrest: a graphic model. *Ann Emerg Med* 1993;22:1652-8
- 13 Holmberg M, Holmberg S, Herlitz J; Swedish Cardiac Arrest Registry. Factors modifying the effect of bystander cardiopulmonary resuscitation on survival in out-of-hospital cardiac arrest patients in Sweden. *Eur Heart J*. 2001; 22(6): 511-9
- 14 Herlitz J, L Ekstrom, B Wennerblom, A Axelsson, A Bang and S Holmberg. 1994. Effect of bystander initiated cardiopulmonary resuscitation on ventricular fibrillation and survival after witnessed cardiac arrest outside hospital. *British Heart Journal*, Vol 72, 408-412.
- 15 A study of 3,053 out-of-hospital cardiac arrests conducted at the University of Antwerp. Bossaert L, Van Hoeyweghen R. Bystander cardiopulmonary resuscitation (CPR) in out-of-hospital cardiac arrest. *The Cerebral Resuscitation Study Group. Resuscitation*. 1989; 17 Suppl: S55-69; discussion S199-206.
- 16 Survival to 1 month was 8.2% among patients who received bystander CPR compared to 2.5% among patients who did not receive it. Bur A, H. Kittler, F. Sterz, M. Holzer, P. Eisenburger, E. Oschatz et al., Effects of bystander first aid, defibrillation and advanced life support on neurologic outcome and hospital costs in patients after ventricular fibrillation cardiac arrest. *Intensive Care Med*. 27 (2001), pp. 1474-1480

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- 17 Becker LB, Ostrander MP, Barrett J, Kondos GT. Outcome of CPR in a large metropolitan area – where are the survivors? *Ann Emerg Med.* 1991 Apr;20(4):355-61.
- 18 Herlitz J, Engdahl J, Svensson L, Angquist KA, Young M, Holmberg S. *Am Heart J.* Factors associated with an increased chance of survival among patients suffering from an out-of-hospital cardiac arrest in a national perspective in Sweden. 2005a;149 (1): 61-6.
- 19 Wik L, Steen PA, Bircher NG. Quality of bystander cardiopulmonary resuscitation influences outcome after prehospital cardiac arrest. *Resuscitation.* 1994 Dec;28(3): 195-203.
- 20 Handley AJ, Koster K, Monsieurs K, Perkins G, Davies S, Bossaert L, European Resuscitation Council Guidelines for Resuscitation. 2005. S141.
- 21 Layon AJ, Modell JH. Treatment of Near Drowning. *Journal – Florida Medical Association.* 1992. Vol 79, No. 9, PP625-9.
- 22 Handley AJ, Koster K, Monsieurs K, Perkins G, Davies S, Bossaert L, European Resuscitation Council Guidelines for Resuscitation. 2005. S141.
- 23 Pearn JH. Drowning. In: Dickerman JD, Lucey JF, eds. *The critically ill child. Diagnosis and management.* 3rd ed. Philadelphia: WB Saunders Co, 1985:129-56.
- 24 Pearn J. 1985. The management of near drowning. *British Medical Journal.* Vol 23 PP 1447-1452.
- 25 Mehta SR, Srinivasan KV, Bindra MS, Kumar MR, Lahiri AK. Near drowning in cold water. *J Assoc Physicians India.* 2000 Jul;48:674-6.
- 26 DeNicola LK, Falk JL, Swanson ME, Gayle MO, Kisson N. Submersion injuries in children and adults. *Crit Care Clin.* 1997 Jul;13(3):477-502.
- 27 Andazola JJ, Sapien RE. The choking child: what happens before the ambulance arrives? *Prehosp Emerg Care.* 1999; 3(1): 7-10.
- 28 Deaths caused by injury in England and Wales, 2002 to 2004
- 29 Jandera V, Hudson DA, de Wet PM, Innes PM, Rode H. Cooling the burn wound: evaluation of different modalities. *Burns.* 2000;26:265–270.
- 30 King TC, Zimmerman JM. First-aid cooling of the fresh burn. *Surgery, gynecology and obstetrics.* 1965. Vol 120, PP1271-1273.
- 31 O'Neill AC, Purcell E, Jones D, Pasha N, McCann J, Regan P. Inadequacies in the first aid management of burns presenting to plastic surgery services. *Ir Med J* 2005; 98(1): 15-6.
- 32 In a study of 695 children with burns treated at the National Burns Institute in Vietnam, first responder intervention was shown to be important. A total of 33% of the children who had had immediate cooling of the burn with water had deep burns, compared with 49% of the children who had not had immediate cooling. There was an estimated reduction of 32% in the need for skin grafting when appropriate first aid was administered. Nguyen NL, Gun RT, Sparron AL, Ryan P. The importance of immediate cooling—a case series of childhood burns in Vietnam. *Burns.* 2002;28:173–176.
- 33 Li C, Yu D, Li MS. [Clinical and experiment study of cooling therapy on burned wound]. *Zhonghua Yi Xue Za Zhi.* 1997;77:586–588.
- 34 Hudspith J, Rayatt S. ABC of burns: First aid and treatment of minor burns. *British Medical Journal* 2004; 328(7454):1487-9.
- 35 Skinner A, Peat B. Burns treatment for children and adults: a study of initial burns first aid and hospital care. *N Z Med J.* 2002 Oct 11;115(1163):U199.
- 36 Skinner AM, Brown TL, Peat BG, Muller MJ. Reduced hospitalisation of burns patients following a multi-media campaign that increased adequacy of first aid treatment. *Burns.* 2004 Feb;30(1):82-5.
- 37 Lehmann KG, Heath-Lange SJ, Ferris ST. Randomized comparison of hemostasis techniques after invasive cardiovascular procedures. *Am Heart J.* 1999;138:1118 –1125.
- 38 Walker SB, Cleary S, Higgins M. Comparison of the FemoStop device and manual pressure in reducing groin puncture site complications following coronary angioplasty and coronary stent placement. *Int J Nurs Pract.* 2001;7:366 –375.
- 39 Pilgram-Larsen J, Mellesmo S. (Not a tourniquet, but compressive dressing. Experience from 68 traumatic amputations after injuries from mines). *Tidsskr Nor Laegeforen.* 1992;112:2188 –2190.
- 40 Lee C, Porter KM. Prehospital management of lower limb fractures. *Emerg Med J.* 2005 Sep;22(9):660-3.
- 41 Cote DJ, Prentice WE, Jr., Hooker DN, Shields EW. Comparison of three treatment procedures for minimizing ankle sprain swelling. *Phys Ther.* 1988;68:1072–1076.
- 42 Hocutt JE, Jr., Jaffe R, Rylander CR, Beebe JK. Cryotherapy in ankle sprains. *Am J Sports Med.* 1982;10:316 –319.
- 43 Steele A, The effects of first aid training on public awareness of the management of a seriously injured patient. *J. R. Soc. Health* 114 (1994), pp. 67–68.
- 44 Mauritz W, Pelinka LE, Kaff A, Segall B, Fridrich P. [First aid measures by bystanders at the place of accident. A prospective, epidemiologic study in the Vienna area]. *Wien Klin Wochensche* 2003 Oct 31;115(19-20):698-704
- 45 Research on Engaging Teachers for the British Red Cross, April 2006
- 46 Research on Engaging Teachers for the British Red Cross, April 2006
- 47 Ipsos MORI conducted face-to-face interviews with the British public in respondents' homes. 1,960 adults (15 and over) were interviewed using CAPI (Computer Assisted Personal Interviewing) between 28 July and 3 August 2006. The data were weighted to the current GB population profile.
- 48 National Curriculum for England, Curriculum Online

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