

Life Saving First Aid in Schools

St John Ambulance Australia would like to thank the Australian Curriculum, Assessment and Reporting Authority (ACARA) for the inclusion of first aid learning in years 7, 8, 9 and 10 of the *Draft Shape of the Australia Curriculum: Health and Physical Education* ('the Curriculum').

The inclusion of first aid in the Curriculum is a welcome and important step in a creating holistic approach to health literacy in the area of first aid and we commend ACARA for the proposed inclusion.

In response to the draft Curriculum, this submission addresses the following key points for ACARA's consideration.

- Why teach First Aid?
- Why First Aid learning for *all* ages?
- First Aid learning increases health literacy.
- The importance of repetition learning and first aid.
- Proposed First Aid learning—Foundation to year 12.

For more information about St John Ambulance Australia, see Appendix 1.

Why teach First Aid?

- **First aid saves lives. The immediate provision of first aid at the scene of an accident leads to a great chance of survival and reduced recovery times.**
- **Bystanders are often reluctant to respond without first aid training.**
- **Only 5% of Australian households have someone trained in first aid.**

First aid saves lives. It is therefore important that a culture of learning first aid, particularly the administration of cardiopulmonary resuscitation (CPR), is developed from an early age.

CPR and simple basic first aid ‘...at the scene of an accident are critical life skills that may need to be employed at any time, without notice and without reference to books or consultation with others.’³

On average, an ambulance takes ten minutes to arrive at the scene of an emergency and first aid is often required to be administered by a bystander¹². The immediate provision of CPR and direct intervention by bystanders at an emergency scene have been considered fundamental to the survival of cardiac arrest patients and in ensuring reduced patient recovery times^{6,5}. Additionally, it is estimated that death resulting from serious road crashes could be reduced by 5 to 15%, plus a reduction in serious injuries, when bystanders perform basic first aid. For drowning, administering CPR may be all there is available to resuscitate the victim³. With respect to road crashes, in Australian society a great deal of emphasis has been placed on pre-crash prevention initiatives. However to date there has been little focus on post-crash care by bystanders.

Bystanders have the potential to reduce fatalities and serious injury. Unfortunately, not all accidents and illness can be prevented. Consequently, the importance of increasing the number of members of the public who are trained and motivated to assist in an emergency must be emphasised in the prevention of unnecessary loss of life⁴. While any person can provide assistance at the scene of an emergency, the more knowledgeable and better skilled the person is, the higher the quality of assistance provided to the patient⁵.

Literature suggests that in a high proportion of cardiac arrest cases and road crashes, survival rates may be compromised by bystander inactivity with very few people trained, willing to assist or act decisively in an emergency⁶. The first three to five minutes are considered vital in survival and preventing irreversible damage to organs⁶. Taking road crashes as an example, it is estimated that it can take only 4 minutes for a victim of a road crash to die from a blocked airway (anoxia) if no intervention is provided^{1,5}.

‘Knowing how to react in an emergency can make all the difference between life and death for the victim.’⁶

It is therefore desirable that as many people as possible in the community develop the knowledge and skills to perform CPR and basic first aid³. Studies have suggested that if just 20% of the population was trained in basic first aid, a significant reduction in morbidity could be achieved⁶.

However, research suggests that the public is generally not inclined to invest time and money in such training, resulting in too small a number of bystanders who know how to act in an emergency⁷. With only 5% of the Australian households have someone trained in first aid, it is paramount that first aid training becomes the norm in Australian society.

Therefore, to increase the number of lay people trained in basic first aid and able to save a life, plus to have a significant impact on public health, it is imperative a culture of learning first aid from an early age is established⁷.

Why First Aid learning for *all* ages?

- **Teaching first aid is international best practice.**
- **Children may be the first at the scene of an accident.**
- **St John already has proven success in teaching young people first aid skills.**

Children as young as 6 or 7 years *can* save a life⁸. As a result, there has been increasing emphasis on teaching basic first aid to school aged children as the school years may provide guaranteed exposure to such learning^{9, 6, 3}.

Training in CPR for school students started in Norway in the 1960s. Since then, several other countries have adopted teaching school children compulsory first aid and CPR due to its public health benefits, including Canada, Great Britain, the United States, Scandinavia and many other European countries^{9, 5}. Already, the European Resuscitation Council, the American Heart Association and American Academy of Paediatrics have recognised the importance of teaching school aged children first aid and CPR and have recommended that CPR be taught in school aged children (as cited in Lafferty et al.³).

Children may be the first at the scene of an accident or emergency (e.g. in the home, at the school playground or in a road crash) and are required to act when no adult is available to assist. Children's knowledge of how to act and provide assistance is therefore essential in reducing serious injury and morbidity. Research also suggests that children are considered to be highly capable of learning this important skill and may be more interested in the subject area than their adult counterparts⁹. Longitudinally, teaching first aid to school aged children will ultimately ensure the increased awareness and training of the Australian population en masse in life-saving first aid.

'...international experience has shown that school-age children are more likely to accept CPR training than older people, are motivated to learn, and do so quickly and easily.'³

Some critics suggest that younger children are unable to perform CPR effectively as older children or adults. However, research suggests that children as young as 6 and 7 can learn basic life support and children as 11 years have been assessed as capable of achieving full depth chest compressions in CPR (and performing other important skills such as placing a patient into the recovery position, maintaining an airway, and calling for help)^{10, 8}. In addition, children as young as 9 or 10 have been found to effectively demonstrate the correct hand position and compression rate with respect to CPR, suggesting that those who cannot perform a full chest compression could instruct other bystanders of how to do so¹⁰.

Furthermore, while some younger children may not have the strength to complete full chest compressions, by teaching these skills at an early age and reinforcing this learning on a regular basis, children develop knowledge of these skills for a time in their lives when they are able to perform the skills themselves¹⁰. In fact, by commencing such training at a young age and with regular reinforcement, it is considered that school children have the prospect of greater skill attainment and retention than their adult learner counterparts¹⁰.

St John youth programs

St John also has a long history of successfully teaching children and young people first aid skills through our Junior and Cadet programs (for ages 8 to 17 years). St John has been providing first aid training to young people since 1925, when the Cadet program was first introduced in Australia. Over the years, many of our Juniors and Cadets have saved a life or prevented life-threatening injury.

A BUNBURY high school student is being hailed a hero after acting on instinct' to save the life of a man lying unconscious on a Bunbury street. Waiting on Stephen Street to be picked up after school last Wednesday, Aaron Hart stepped in to perform CPR on a man for 15 minutes until an ambulance arrived.

The 16-year-old, who has trained as a St John Ambulance Event First Aid Services cadet since he was eight, went to investigate after seeing a crowd gather. Discovering an unconscious man being helped by people with limited first aid knowledge, his training kicked in.

"My impulse was to see if I could help I said I had a senior first aid certificate," he said. "It was just instinct."

St John Ambulance station manager Chris Wilks heaped praise on the teenager who, he said, had kept the man alive. "Aaron really stepped up to the plate," Mr Wilks said. "He was really competent in what he was doing and gave the person the best possible opportunity for a good outcome."

Mr Wilks said he wished more people in the community were as well versed in first aid as the young hero. "It's essential if an ambulance takes more than three or four minutes to get there in a very critical event, time's ticking away and it makes it much, much more difficult to get a good result."

South Western Times (2012, 8 March). *First aid Cadet puts training into action*. Bunbury.

Our Junior and Cadet programs provide age appropriate learning in a fun environment. Juniors (ages 8 to 12) learn important skills such as what to do at the scene of an accident, basic wound care, burns, bleeding and managing choking. Cadets (ages 12 to 17) then go on to more advanced learning including topics such as airways, breathing, CPR and defibrillation plus the management of many other specific conditions (such as asthma, angina, snake bites and much more) and receive opportunities to treat members of the community at first aid events. The learning of first aid in both programs revolves about the St John DRSABCD Action plan. As a result, St John can speak to the success and ability of young people in retaining and performing CPR and first aid skills from a young age.

First Aid. Skills at School

St John Ambulance Australia (WA) currently provides the *First Aid. Skills at School* program to primary school students in Western Australia. This program is a free community initiative delivered by St John Ambulance (WA) to interested schools with the aim of providing training for school aged children in years 4 to 7. The course aims to:

- equip children with the knowledge of what to do in an emergency
- provide an early introduction to first aid for the future
- develop confidence and extra skills over and above current classroom learning
- increase the total number of first aid skills in our local community.

To date, the *First Aid. Skills at School* program has been a great success as evidenced by the two case studies below. The young people in both cases received Bravery Awards in 2011 for their life-saving efforts:

South Perth Resident Euan Rainnie

Euan had recently participated in a First Aid Training course through his school, as part of St John Ambulance's First Aid Focus schools program. Little did he know that soon after he would go on to use these skills to save his mother's life. In April this year, Euan's mother Rowena was in the pool, when Euan looked over the balcony and noticed her lying face down in the water. Rowena had suffered a diabetic low and became unconscious while in the pool. Euan ran downstairs, jumped into the pool and pulled her into the shallow end before using the basic first aid principles of checking for a response and seeing if she was breathing. Hearing the distress call from Euan, the neighbours rushed over, pulled Rowena from the pool, placed her in a recovery position and together with Euan, monitored her breathing until the ambulance arrived. Euan remembered to follow the DRSABCD acronym that he had learnt through the First Aid training and remained completely calm while coming to his mother's aid. Euan's knowledge of first aid and his incredible act of care for his mother saved her life.

Story courtesy of St John Ambulance Australia (WA), (2011)

Bayswater mother and son Julie and Alex Ambrosi

In May this year, Geoff and his son Alex were playing in the park across the road from their house when suddenly Geoff collapsed and was suffering a sudden cardiac arrest. Quick thinking Alex knew not to leave his dad's side, and shouted to his mother, Julie who was inside the house at the time. Julie rushed out and used the first aid skills she had learnt at a St John Ambulance first aid course recently to begin CPR on her husband as Alex rang for an ambulance. Alex spoke to the communications officers over the phone and relayed advice to Julie while she continued performing CPR on Geoff until the ambulance arrived. Both Alex and Julie remained calm and focused the entire time and when talking to the communications officers, Alex even referenced the DRSABCD first aid response. While the ambulance took only four minutes to arrive, the first few minutes after a cardiac arrest are crucial and thanks to their quick thinking and first aid know-how, Alex and Julie helped save Geoff's life.

Story courtesy of St John Ambulance Australia (WA), (2011)

First Aid learning increases health literacy

- **First aid learning promotes good health and influences the choices of individuals.**

Developing knowledge and skills in the first aid area is an important part of maintaining and promoting good health and influencing the choices of the individual. By increasing health literacy in the area of first aid, we are creating a culture of young people willing and able to assist in an emergency—a culture of saving lives.

St John believes the Australian Curriculum is perfectly placed to provide a comprehensive and consistent learning framework in the area of first aid and CPR and thereby increasing health literacy.

The importance of repetition learning and first aid

- **Repetition is critical for learning first aid.**
- **To be effective, a consistent approach to learning is desirable.**

In its current form, the *Draft Shape of the Australian Curriculum: Health and Physical Education* does incorporate some learning on the topic of first aid and related areas (i.e. identifying an emergency situation, understanding basic emergency response procedures, and identifying people in their school and community who can help). However the proposed learning appears to lack continuity in its approach.

Literature suggests that a continuity in learning first aid (such as through repetition learning) is essential for a solid understanding and acquisition of the subject matter. The proposed Health and Physical curriculum does currently place emphasis on continuity of learning in this area given that first aid learning is only suggested for years 7, 8, 9 and 10 in the draft Curriculum.

Much research exists to suggest that first aid learning should not be ad hoc or sporadic as skills and knowledge learnt rapidly 'fall off' or are forgotten over time. Repetition learning, and with emphasis on building on existing skills (or extension learning) in accordance with age and developmental stage, is considered to be good practice in first aid training and increases the likelihood of long-term skill acquisition, particularly with respect to CPR training^{3,2}.

Research suggests that first aid skills and knowledge generally begin to fall off between 6 and 12 months. As such, repetition learning would ideally occur on an annual basis plus with building on skills learnt as appropriate to the age and developmental stage of the child. Importantly, Bollig et al. suggest that ongoing training in this area may actually increase motivation to assist at the scene of an emergency as well as improved performance during the emergency situation⁸.

In order to be effective, there must be consistency in the approach to learning of this subject (i.e. *what* should be taught and *when*) to ensure consistency in learning and effective first aiders are ready to assist members of our community in need of assistance.

Proposed First Aid learning—Foundation to year 12

- **First Aid learning be centred around the St John DRSABCD Action Plan.**
- **First Aid learning be age appropriate.**
- **First Aid learning for secondary students include the areas of bleeding and burns management.**

To be effective, first aid learning needs to be incorporated into the Curriculum for all ages. As such, we make the following recommendations for age appropriate first aid learning:

- First Aid learning be centred around the St John DRSABCD Action Plan
- First Aid learning be age appropriate
- First Aid learning for secondary students include the areas of bleeding and burns management.

The St John Ambulance Australia DRSABCD Action Plan

The DRSABCD Action Plan is a vital aid to the first aider in assessing whether or not the patient has any life-threatening conditions and if any immediate first aid is necessary:

Danger—ensure the area is safe for yourself, others and the patient

Response—check for response—ask name—squeeze shoulder. Is the patient responsive? Yes? No? If yes, make the patient comfortable and monitor their response. If no, proceed to ‘S’

Send for help—**Call triple zero (000)** for an ambulance or ask another person to make the call

Airway—open mouth. If foreign material present, place in the recovery position and clear airway with fingers

Breathing—check for breathing—look, listen, feel. If not normal breathing, commence CPR. If normal breathing, place in recovery position and monitor breathing.

CPR—Start CPR—30 compressions : 2 breaths. Continue CPR until help arrives or patient recovers.

Defibrillator—Apply defibrillator if available and follow voice prompts.

We recommend that all learning for school aged children be based on age appropriate learning (see Appendix 2) of the DRSABCD Action Plan, plus for secondary students, learning in the two crucial areas of:

- bleeding, and
- burns management.

Appendix 1

About St John Ambulance Australia

St John Ambulance Australia is a self-funding charitable organisation active in all States and Territories, dedicated to helping people in sickness, distress, suffering or danger.

St John's goals include making first aid a part of every Australia's life.

St John provides:

- First aid training
- First aid kits
- First aid services at community and public events, and assistance during national disaster relief, through volunteers
- A range of community care services for the aged, the infirm, the immobile and lonely
- Ambulance services in Western Australia and the Northern Territory
- Funding and support for Ophthalmic services at the St John Jerusalem Eye Hospital, in East Timor and in Australian communities
- A national youth development program for young people aged 8 to 18 years;
- Public access defibrillators throughout the Australian community.

We have been active in Australia for over 125 years, and internationally are part of a wider organisation with a long and honourable history.

Appendix 2

Age appropriate learning recommendations

Foundation (typically 5-6 years of age)

First Aid understanding	<p>Danger:</p> <ul style="list-style-type: none">• understanding how to check for danger to the self, the patient or bystanders before helping someone in an accident/emergency situation• recognising different types of accidents/emergencies <p>Response:</p> <ul style="list-style-type: none">• learning how to determine if the patient is responsive (i.e. calling their name or hello, or gently squeezing their shoulders) <p>Send for help:</p> <ul style="list-style-type: none">• learning how to call an ambulance• learning what to say to the ambulance all centre
First Aid practical skills	<ul style="list-style-type: none">• demonstrate how to roll the patient into the recovery position• demonstrate how to call an ambulance

Year 1-2 (typically 6-8 years of age)

First Aid understanding	<p>Danger:</p> <ul style="list-style-type: none">• understanding how to check for danger to the self, the patient or bystanders in an accident/emergency situation• recognising different types of accidents/emergencies• identifying how accidents can happen <p>Response:</p> <ul style="list-style-type: none">• learning how to determine if the patient is responsive (i.e. calling their name or hello, or gently squeezing their shoulders) <p>Send for help:</p> <ul style="list-style-type: none">• learning how and when to call an ambulance• learning what to say to the ambulance all centre
First Aid practical skills	<ul style="list-style-type: none">• demonstrate how to roll the patient into the recovery position• demonstrate how to call an ambulance

Year 3-4 (typically 8-10 years of age)

First Aid understanding	<p>Danger:</p> <ul style="list-style-type: none">• understanding how to check for danger to the self, the patient or bystanders in an accident/emergency situation• recognising different types of accidents/emergencies• identifying how accidents can happen• identify strategies for avoiding accidents <p>Response:</p> <ul style="list-style-type: none">• learning how to determine if the patient is responsive (i.e. calling their name or hello, or gently squeezing their shoulders) <p>Send for help:</p> <ul style="list-style-type: none">• learning how and when to call an ambulance• learning what to say to the ambulance all centre
First Aid practical skills	<ul style="list-style-type: none">• demonstrate how to roll the patient into the recovery position

- demonstrate how to call an ambulance

Year 5-6 (typically 10-12 years of age)

First Aid understanding	<p>Danger:</p> <ul style="list-style-type: none"> • understanding how to check for danger to the self, the patient or bystanders in an accident/emergency situation • recognising different types of accidents/emergencies • identifying how accidents can happen • identify strategies for avoiding accidents <p>Response:</p> <ul style="list-style-type: none"> • learning how to determine if the patient is responsive (i.e. calling their name or hello, or gently squeezing their shoulders) <p>Send for help:</p> <ul style="list-style-type: none"> • learning how and when to call an ambulance • learning what to say to the ambulance all centre <p>Airway</p> <ul style="list-style-type: none"> • identify when an airway is blocked • understand how to clear a blocked airway
First Aid practical skills	<ul style="list-style-type: none"> • demonstrate how to roll the patient into the recovery position • demonstrate how to call an ambulance • demonstrate how to clear a blocked airway

Year 7-8 (typically 12-14 years of age)

First Aid understanding	<p>Danger:</p> <ul style="list-style-type: none"> • understanding how to check for danger to the self, the patient or bystanders in an accident/emergency situation • recognising different types of accidents/emergencies • identifying how accidents can happen • identify strategies for avoiding accidents <p>Response:</p> <ul style="list-style-type: none"> • learning how to determine if the patient is responsive (i.e. calling their name or hello, or gently squeezing their shoulders) <p>Send for help:</p> <ul style="list-style-type: none"> • learning how and when to call an ambulance • learning what to say to the ambulance all centre <p>Airway</p> <ul style="list-style-type: none"> • identify when an airway is blocked • understand how to clear a blocked airway <p>Breathing</p> <ul style="list-style-type: none"> • identify if a patient is breathing (look, listen, feel) <p>CPR:</p> <ul style="list-style-type: none"> • learn the correct technique for compressions and breathing • learn the correct compression : breath rate (30 : 2) <p>Defibrillator:</p> <ul style="list-style-type: none"> • learn the basics of how to identify a defibrillator and explain the need to follow voice prompts
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First Aid practical skills	<p>Bleeding:</p> <ul style="list-style-type: none"> • recognise bleeding from an artery, vein or capillary • learn how to control various types of bleeding (i.e. to a limb, head wound or internal bleeding) • learn basic infection control skills for dealing with bleeding • identify how to dispose of soiled waste
	<ul style="list-style-type: none"> • demonstrate how to roll the patient into the recovery position • demonstrate how to call an ambulance • demonstrate how to clear a blocked airway • demonstrate how to determine if a patient is breathing • demonstrate how to give compressions and breaths and the correct compression and breath rate • demonstrate how to treat different types of bleeding • demonstrate how to prevent infection • demonstrate correct disposal of soiled waste

Year 9-10 (typically 14-16 years of age)

First Aid understanding	<p>Danger:</p> <ul style="list-style-type: none"> • understanding how to check for danger to the self, the patient or bystanders in an accident/emergency situation • recognising different types of accidents/emergencies • identifying how accidents can happen • identify strategies for avoiding accidents <p>Response:</p> <ul style="list-style-type: none"> • learning how to determine if the patient is responsive (i.e. calling their name or hello, or gently squeezing their shoulders) <p>Send for help:</p> <ul style="list-style-type: none"> • learning how and when to call an ambulance • learning what to say to the ambulance all centre <p>Airway</p> <ul style="list-style-type: none"> • identify when an airway is blocked • understand how to clear a blocked airway <p>Breathing</p> <ul style="list-style-type: none"> • identify if a patient is breathing (look, listen, feel) <p>CPR:</p> <ul style="list-style-type: none"> • learn the correct technique for compressions and breathing • learn the correct compression : breath rate (30 : 2) <p>Defibrillator:</p> <ul style="list-style-type: none"> • learn the basics of how to identify a defibrillator and explain the need to follow voice prompts <p>Bleeding:</p> <ul style="list-style-type: none"> • recognise bleeding from an artery, vein or capillary • learn how to control various types of bleeding (i.e. to a limb, head wound or internal bleeding) • learn basic infection control skills for dealing with bleeding • identify how to dispose of soiled waste
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First Aid practical skills	Burns: <ul style="list-style-type: none"> • understand the causes of burns and methods of prevention • understand what happens to tissue when burnt • learn how to manage a burn
	<ul style="list-style-type: none"> • demonstrate how to roll the patient into the recovery position • demonstrate how to call an ambulance • demonstrate how to clear a blocked airway • demonstrate how to determine if a patient is breathing • demonstrate how to give compressions and breaths and the correct compression and breath rate • demonstrate how to treat different types of bleeding • demonstrate how to prevent infection • demonstrate correct disposal of soiled waste • demonstrate how to manage a burn • demonstrate how to manage a patient in a motor vehicle accident *

Note

* St John Ambulance Australia argues that all learner drivers should know how to perform basic first aid before gaining a driver's licence so that they know what to do in the event of coming across a motor vehicle accident. Year 9 – 10 is an ideal time to learn these skills before learning to drive.

Senior secondary2 (typically 16-18 years of age)

It is recommended that senior secondary students undertake an Apply First Aid Course as part of the 'health dimensions of the learning area'.¹¹

¹ St John Ambulance Australia (WA). (2008). Position paper: St John Ambulance WA Learner Driver Campaign. Unpublished work.

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³ Lafferty, C., Larsen, P., & Galletly, D. (2003). Resuscitation teaching in New Zealand schools. *Journal of the New Zealand Medical Association*, 116, 1181. Retrieved 26 March 2012, from Elsevier database.

⁴ Nuernberger, C., Schoenberg, T., Urso, T., Hobart, R., Fleischhagl, K., Zarhuber, N., & Laggner, S. (n.d.). Compulsory First-Aid Training in Australian Schools. Department of Emergency Medicine, Medical University of Vienna, Austria. Retrieved 28 March, 2012, from Elsevier database.

⁵ St John Ambulance Australia (NT) Inc (2011). First @ scene: First aid for learner drivers across the Northern Territory. St John Ambulance Australia (NT): Darwin.

⁶ Uray, T., Lunzer, A., Ochsenhofer, L., Zingerle, R., Lillie, P., Brandl, E., Sterz, F., & LFSAS Study Group. (2003). Feasibility of life-supporting first aid (LSFA) training as a mandatory subject in primary schools. *Resuscitation*, 59, 211-220. Retrieved 28 March, 2012, from Elsevier database.

⁷ <http://www.stjohnsa.com.au/the-governor-of-south-australia-gets-hands-on-with-first-aid-training/>

⁸ Bollig, G., Wahl, H., & Svendsen, M. (2009). Primary school children are able to perform basic life-saving first aid measures. *Resuscitation*, 80, 689-692. Retrieved 26 March, 2012 from Elsevier database.

⁹ Miro, O., Jimenez-Fabrega, X., Espigol, G., Culla, A., Escalada-Roig, X., Diaz, N., Salvador, J., Abad, J., & Sanchez, M. (2006). Teaching basic life support to 12-16 year olds in Barcelona schools: Views of head teachers. *Resuscitation*, 70, 107-116. Retrieved 28 March, 2012 from Elsevier database.

¹⁰ Prehospital Emergency Research Unit, Welsh Ambulance Services. (2007). At what age can school children provide effective chest compressions? An observational study from Heartstart UK schools training programme. *BMJ*, doi:10.1136/bmj.39167.459028.DE

¹¹ Australian Curriculum Assessment and Reporting Authority (2012). *Draft shape of the Australian curriculum: Health and physical education*. Retrieved 2 April 2012, from www.acara.edu.au