



**House
Legislative
Analysis
Section**

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**REQUIRE CPR FOR TEACHING
CERTIFICATE**

**House Bill 4237 (Substitute H-1)
First Analysis (1-29-02)**

**Sponsor: Rep. Sal Rocca
Committee: Education**

THE APPARENT PROBLEM:

Two emergency medical procedures--one called cardiopulmonary resuscitation, or CPR, and a second referred to as the Heimlich maneuver--can be administered to people who have suddenly stopped breathing because of an accident, or cardiovascular disease. (See *BACKGROUND INFORMATION*, "CPR Steps," below.) Death can be prevented if victims receive prompt help from a CPR-trained provider.

Cardiac arrest in infants and children is usually the result of lack of oxygen caused by respiratory difficulty or arrest. CPR for children may be required after a variety of events such as injuries, airway obstruction caused by foreign objects such as toys or food, near drowning, smoke inhalation, sudden infant death syndrome, infections, asthma attacks, electrical shocks, or allergic reactions such as bee stings or drug reactions. In most cases, quick intervention can prevent irreversible brain damage or death.

Generally CPR is used to clear the victim's air passageway, and it is administered by trained volunteers outside of hospital emergency rooms, when more highly trained nurses and physicians are not present to use fiber-optic scopes to probe the throat and identify the obstructions, or to insert breathing tubes to clear the passageways. (See *BACKGROUND INFORMATION*, "History of Procedure," below.)

The kinds of accidents that cause cardiac arrest in children sometimes occur in the more than 3,500 school buildings in the state, where thousands of school children assemble every weekday to learn. (See *BACKGROUND INFORMATION*, "National Statistics," below.) Although the number of such incidents in Michigan schools during the past year is unknown, one incident reported in the *Muskegon Chronicle* (1-9-97) occurred in the Michigan Early Childhood Education Program at St. Clair Elementary School in Newaygo County in January

1997, when a preschooler who was enrolled in a pre-kindergarten program sponsored by the intermediate school district apparently choked on a marshmallow while working on a project in his preschool classroom. Another incident, reported in the *MEA Voice* (1-24-02), occurred on November 2, 2001 at Milford High School in the Huron Valley School District when five teachers and one student administered CPR to a 54-year-old teacher who suffered a sudden onset of ventricular fibrillation, an often fatal form of arrhythmia, despite having recently won a first place medal in the Senior Olympics by bench-pressing 320 pounds.

While the thrust in most schools is to provide CPR training for those people most likely to encounter emergencies--pre-school workers, main office personnel, playground and recreation supervisors, bus drivers, selected health care aides who work with medically fragile students, and coaches--there is no requirement that certified teachers be trained. According to committee testimony, CPR training is required for all employees in the Department of Corrections, as well as all licensed optometrists, dentists, dental hygienists, dental technicians, and all child day care providers.

In order better to ensure the safety of school children, some have proposed that cardiopulmonary resuscitation training be a requirement for first-time teacher certification.

THE CONTENT OF THE BILL:

The bill would amend the Revised School Code to require new teachers to hold a valid certification in cardiopulmonary resuscitation (CPR).

Beginning July 1, 2002, the superintendent of public instruction could not issue an initial teaching certificate to a person unless he or she presented satisfactory evidence of holding a valid certification in CPR, and had successfully completed instruction

House Bill 4237 (1-29-02)

approved by the Department of Education in foreign body airway obstruction management. The certificate could be issued by the American Red Cross, the American Heart Association, or a comparable organization or institution approved by the department. Alternatively, a person could provide satisfactory evidence that he or she had physical limitations making such a certification impracticable.

A teacher who met these requirements and who, in the course of employment, performed CPR on another person or who attempted to remove airway obstructions would not be liable in a civil action for damages, unless an act or omission constituted gross negligence or willful and wanton misconduct.

MCL 380.1531d

BACKGROUND INFORMATION:

CPR steps for adults. Standard CPR for adults is administered in six steps: Step 1. Call 911. Check the victim for unresponsiveness. If there is no response, call 911 and then return to the person. Step 2. Tilt head, lift chin: check breathing. Position the person flat on their back. Kneel by their side and place one hand on the forehead and the other under the chin. Tilt the head back and lift the chin until teeth almost touch. Look and listen for breathing. Step 3. Give two breaths. If not breathing normally, pinch the nose and cover the mouth with yours. Give two full breaths. The person's chest will rise if you are giving enough air. Step 4. Check pulse. Put the fingertips of your hand on the Adam's apple, slide them into the groove next to the windpipe. Feel for a pulse. If you cannot feel a pulse or are unsure, move on to the next step. Step 5. Position your hands in the center of the chest. Place one hand on top of the other. Step 6. Pump 15 times. Push down firmly two inches. Push on the chest 15 times. Continue with two breaths and 15 pumps until help arrives.

CPR steps for children. CPR for children is similar to performing standard CPR for adults. There are, however, five differences. 1) If you are alone with the child, give one minute of CPR before calling 911. 2) Use the heel of one hand for chest compressions. 3) Press the sternum down one to 1.5 inches. 4) Give chest compressions at the rate of 100 per minute. 5) Give one full breath followed by five chest compressions (in contrast to two breaths and 15 pumps for adults).

The CPR procedure recommended for infants varies somewhat from the procedure that is recommended

for children. For more information about CPR, visit the following web address: <http://www.learn CPR.org>.

History of procedure. According to the American Heart Association, the importance of ventilation during resuscitation has been accepted for centuries, beginning with very early descriptions of assisted ventilation documented in biblical Old Testament stories. Training in techniques for bystanders dates to at least the mid-1700s, and experiments to determine the best techniques are recorded as early as the 1790s. There were several effective artificial ventilation techniques popular in the United States and Europe in the early 1900s. These included several manual methods of ventilation, in which pressure was rhythmically applied to and released from the posterior chest and back while the patient's arms were lifted cyclically. By 1953 at least 105 published articles described methods for artificial resuscitation of adults, and 12 articles discussed resuscitation of children. During the first half of the 20th century, these so-called "manual" techniques were endorsed and taught by the Red Cross and commonly used by lifeguards, the military, and the Boy Scouts. Because external chest compression could provide only partial circulatory support, the mouth-to-mouth ventilation technique was added to chest compression to create modern CPR.

National statistics about CPR. The American Heart Association website (americanheart.org), reports that there are no reliable national statistics on CPR because no single agency collects information about the number of people who receive CPR, the number who do not receive it but who need it, or the number of people who are trained to administer CPR. However, the association reports that sudden cardiac death occurs over 600 times each day in the United States. Further, sudden cardiac death in people less than 21 years old is one-tenth as common as in adults, occurring in only one to two per 100,000 children per year.

The association reports that many studies have been done examining CPR in specific communities. While they show varying rates of success, all are consistent in showing benefits for early CPR. The following statements are fair generalizations: early CPR and rapid defibrillation combined with early advanced care can result in long-term survival rates for witnessed ventricular fibrillation as high as 40 percent; and, the value of early CPR by bystanders is that it can buy time by prolonging life during ventricular fibrillation. However, early bystander CPR is less helpful if EMS personnel equipped with a

defibrillator arrive later than 8 to 12 minutes after the collapse.

The AHA Chain of Survival. Spokespeople for the American Heart Association point out that 95 percent of cardiac arrest victims die before they ever reach the hospital. To save more lives, the association promotes a four-link "Chain of Survival", which refers to the four sequential links necessary to successfully treat a sudden cardiac arrest emergency. The steps are: 1) Early access to emergency medical care by calling 911; 2) Early CPR; 3) Early defibrillation, that is, access to automated external defibrillators; and, 4) Early advanced medical care.

FISCAL IMPLICATIONS:

The House Fiscal Agency notes that the bill has no state or local fiscal impact. (1-25-02)

ARGUMENTS:

For:

Teachers come in contact with scores and sometimes hundreds of school-children each day. In order to be prepared to assist their students when they become accident victims, teachers should be trained to administer CPR and the Heimlich maneuver. What's more, teachers should be equipped with cell phones and access to 911 so that they can call for help in the critical first seconds of a crisis. The best way to ensure such training is to make it a requirement of teacher certification. If this bill were to become law, as many as six or seven thousand newly certified teachers who are CPR-trained would be prepared to enter schools each year.

Response:

CPR certification must be updated periodically to ensure that those trained continue to be proficient when they administer the procedure. Generally CPR certificates are issued for one, two, or three years, depending on the training agency. Re-training for re-certification can be costly, and it takes time: up to eight hours, according to committee testimony. Although first-time CPR training could be accomplished if it becomes a prerequisite for teacher certification, the re-training will be left to certified teachers on a voluntary basis.

Reply:

CPR training updates can be met by including the training as part of a school district's professional development requirements.

Against:

While this seems like a good idea, there could be ample training costs for mandatory CPR training. What's more, those certified would likely be liable in a lawsuit if attempts to save a child's life by a "trained" person did not work.

Response:

Most communities offer free or very low-cost training through the American Red Cross regional offices, and the American Heart Association. For example, according to committee testimony, the cost of the American Red Cross course is \$40; nonetheless 220,000 residents are trained by the Red Cross annually in 20,000 separate course sessions offered throughout the state. Further, this bill contains a "good Samaritan" provision to ensure that those teachers who offer assistance in good faith would not be held responsible for unintended or unpreventable bad results. And in addition, the bill recognizes that some teachers could have physical limitations that may make it impossible for them to administer CPR. Protection from liability has been carefully included in the bill's provisions.

Against:

Although this bill is a good idea, but it should go further to ensure greater school safety. This bill should be considered together with Senate Bill 278, a bill that would require school coaches (who sometimes are employed despite the fact that they do not have teaching certificates) to have sports safety training, including CPR training. Further, a bill to require first aid training for all teachers should be enacted into law. The American Red Cross notes that CPR is a helpful tool, but is best when combined with first aid training. During committee deliberations, the Red Cross reported results of a statewide poll conducted on January 13, 2002 (administered to a 600-person sample and having a margin of error of plus or minus 4 points) that 85 percent of respondents strongly favored (60 percent) or somewhat favored (25 percent) a proposed change in state law that would require newly employed coaches to be trained in first aid and sports safety. In the same poll, 75 percent strongly favored (48 percent) or somewhat favored (27 percent) a law that would require newly employed teachers to be trained in first aid and CPR. Finally, nearly 40 percent of the respondents would favor the state paying \$40 per person so that all new teachers and new coaches could get the training. (More specifically, 38 percent of the respondents favored the state paying a \$40 training cost per person, 19 percent thought there should be a law for new teachers and new coaches but that the teachers and coaches should pay themselves, and 34 percent

opposed the new law, saying the matter should be left to local schools)

POSITIONS:

The American Heart Association supports the bill. (1-24-02)

The American Red Cross supports the bill. (1-24-02)

The Michigan Education Association supports the bill. (1-24-02)

The Michigan Federation of Teachers and School Related Personnel supports the bill. (1-24-02)

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■ This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.