Aspiration of a foreign body is a common hazard in infancy and childhood. In the last 6 years, there has been a great effort to educate the public concerning the prevention of choking due to accidental aspiration of foods or small objects by children. Concomitantly, there has been a campaign to teach the first aid measures essential for evaluation and treatment of choking.

HISTORIC OVERVIEW

Much of the existing data regarding treatment of the choking child is anecdotal. In 1981, the Committee on Accident and Poison Prevention of the American Academy of Pediatrics reviewed the available literature. The committee recommended that a foreign body in the upper airway be considered an immediate threat to life and that such a foreign body required urgent removal. In addition, the committee recognized the effectiveness of natural coughing and recommended that, if a choking child could breath and was able to speak and/or cough, all maneuvers were unnecessary and potentially dangerous. If the choking child could not breathe, cough, or make a sound, a series of back blows and chest thrusts was recommended. The committee recommendations resulted in a spirited controversy concerning the most effective management of the choking child.2-6

At the July 1985 National Conference on Standards and Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiac Care, the American Heart Association, American College of Cardiology, and the American Red Cross convened a panel on Management of Foreign Body Airway Obstruction to review and revise the past recommendations. The panel recommended use of the abdominal thrust (the Heimlich maneuver) as the exclusive method of treating foreign body airway obstruction for adults and children older than 1 year. No new scientific evidence was presented for the pediatric age group, but the panel agreed that, for uniformity and simplicity of teaching, management of foreign body airway obstruction in children should be the same as in adults.

The 1985 national conference considered the fact that, for the group aged 0 to 4 years, there was a decline from 600 deaths due to choking in 19747 to 170 deaths due to choking in 19838. The reasons for this decline remain unclear. The national conference also considered the potential for injury to the abdominal organs in infants 1 year of age or younger and concluded that for these infants back blows and chest compressions should remain the recommended treatment for choking.9

In July 1986, the American Academy of Pediatrics (AAP)10 published revised recommendations for treating a choking episode in infants and children. This policy statement, patterned on recommendations of the 1985 national conference, resolved a great deal of controversy regarding the optimal method for relief of a foreign body obstruction. The combination of back blows and chest thrusts (sternal compressions) was retained for use on infants, and recommendations for children older than 1 year of age were changed to advise the exclusive use of abdominal thrusts (the Heimlich maneuver).

Subsequent to the release of the July 1986 policy statement by the AAP, the American Heart Association in collaboration with the American Red Cross published recommendations concerning first aid for the choking child.9 Although these recommendations corresponded with those of the AAP in principle, they differed slightly in procedure.

RECOMMENDATIONS

In view of the procedural differences, the Committee on Accident and Poison Prevention hereby
amends its 1986 recommendations and urges the adoption of the following methods for the management of foreign body airway obstruction when the child cannot breathe, speak, and/or cough. These guidelines, which conform to those of the American Heart Association and the American Red Cross, should eliminate unnecessary confusion when teaching the proper techniques for treating choking episodes in infants and children.

If the Choking Victim is an Infant (Younger Than 1 Year of Age)

1. (a) Place the infant face down on the rescuer’s forearm in a 60° headdown position with the head and neck stabilized. Rest the forearm firmly against the rescuer’s body for additional support.

(b) For the choking large infant, an alternate method is to lay the infant face down over the rescuer’s lap, with the head firmly supported and held lower than the trunk.

2. Administer four back blows rapidly with the heel of the hand high between shoulder blades.

3. If obstruction is not relieved, turn the infant over to a supine position resting on a firm surface and deliver four rapid chest thrusts (similar to external cardiac compressions) over the sternum using two fingers.

4. If breathing is not resumed, open the victim’s mouth by grasping both the tongue and the lower jaw between thumb and finger and lifting (the tongue-jaw lift technique); this draws the tongue away from the back of the throat and may help relieve the obstruction. If the foreign body is visualized, it may be manually extracted by a finger sweep. However, blind sweeps may cause further obstruction and thus should be avoided.

5. If no spontaneous breathing occurs, attempt ventilation with two breaths by mouth-to-mouth or mouth-to-mouth and nose technique.

6. Repeat steps 1 to 5 and persist in performing the above techniques as needed while rapidly seeking aid from emergency medical services.

If the Choking Victim is a Small Child (Older Than 1 Year of Age)

1. Apply a series of six to ten abdominal thrusts (the Heimlich maneuver) until the foreign body is expelled. The child should be placed on his or her back. The rescuer should kneel at the child’s feet if the child is on the floor, or stand at the child’s feet if the child is on a table. The astride position is not recommended for small children. The heel of one hand should be placed in the midline between navel and rib cage and the second hand placed on top of the first and pressed into the abdomen with an upward thrust. In small children, the maneuver must be applied gently. It should consist of a rapid inward and upward thrust.

2. If the obstruction is not relieved using the Heimlich maneuver, open the airway using the tongue-jaw lift technique and attempt to visualize the foreign body. No blind finger sweeps should be used.

3. If no spontaneous respirations result, attempt to ventilate the victim. If unsuccessful, repeat a series of six to ten abdominal thrusts.

4. Repeat steps 1 to 3 and persist in performing the above sequence while rapidly seeking aid from emergency medical services.

If the Choking Victim is an Older Child

An older, larger child can be treated as an adult in the standing, sitting, or recumbent (supine) position.

Pediatricians should be familiar with and counsel parents about the dangers and prevention of choking as well as the proper evaluation and first aid measures for treating this emergency.
REFERENCES

First Aid for the Choking Child, 1988

Pediatrics 1988;81;740

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://pediatrics.aappublications.org/content/81/5/740