EDITORIALS

The Heimlich Maneuver

More than 3,000 people die from choking in the United States each year. Most adults choke while eating. Meat is the usual culprit. Other foods and objects can cause choking too, especially in young children, who routinely put a variety of things into their mouths.

For years, medical opinion differed on the best way or ways of dislodging an object from the back throat of a choking victim. Sharp blows to the back, finger sweeps of the throat, and manual thrusts to the chest were methods that were often recommended. However, at a conference held July 11–13, 1985, to establish first-aid standards for the American Red Cross and the American Heart Association, the participants concluded that methods other than the Heimlich Maneuver can be dangerous and that only the Heimlich Maneuver should be used to treat a choking victim.

Millions of Americans have been taught to treat persons whose airways are obstructed by a foreign body by administering back blows, chest thrusts, and abdominal thrusts. Now they must be advised that these methods are hazardous, even lethal. A back slap can drive a foreign object even deeper into the throat. Chest and abdominal thrusts, because they refer to blows to unspecified locations on the body, have resulted in cracked ribs and damaged spleens and livers, among other injuries.

The single exception to the prohibition against the backslap is the child under 1 year. The back blow should be administered with the baby held upside down.

The best rescue technique in any choking situation is the Heimlich Maneuver. I urge the American Red Cross, the American Heart Association, and all those who teach first aid to teach only the Heimlich Maneuver. Manuals, posters, and other materials that recommend treating choking victims with slaps and chest thrusts should be withdrawn from circulation.

Devised in the early 1970s by Henry J. Heimlich, MD, who is now president of the Heimlich Institute at Xavier University, the Heimlich Maneuver depends for its success on the fact that a choking victim has a large volume of air in his lungs, even if he was exhaling when the choking began. If a rescuer presses sharply and repeatedly on the victim's abdomen, with one balled fist wrapped in the opposite hand, at a point just above the navel, but below the rib cage and the diaphragm, that reservoir of air is expelled up the airway with a great deal of force, thus dislodging the obstruction from the victim's throat.

The Heimlich Maneuver is safe, effective, and easily mastered by the average person. It can be performed on standing or seated victims and on persons who have fallen to the floor. It can be performed on children and even on oneself. Those who wish to learn when and how to perform the Heimlich Maneuver should contact their local Red Cross or Heart Association chapter for expert instruction.

> C. Everett Koop, MD, ScD Surgeon General

The Possible Dream: Accident Prevention and Injury Control—a Conference to Chart Advances and Plan Strategy

A major shift in the causes of death and disability has occurred in this country. At the turn of the century, infectious diseases were the prime cause of early death. Today, injuries are the prime cause yet they remain one of the nation's most neglected public health problems.

The enormous magnitude of the injury problem recently has been the subject of a joint review by the National Research Council and the Institute of Medicine (1). Each year, more than 140,000 Americans die from injuries. More citizens aged 1-34 years die from injuries than from all diseases combined, and injuries are the leading cause of death up to age 44. Injuries also cause the loss of more working years of life than all forms of cancer and heart disease combined (2).

It should be pointed out that, although injury mortality is striking and important, it represents only the very tip of the iceberg where the injury problem is concerned. Nearly one person in three

suffers a nonfatal injury each year. With respect to long-term disability, more than 75,000 Americans sustain brain injuries each year (1). The societal cost of this epidemic is staggering, costing an estimated \$75-\$100 billion annually. As a nation, we can no longer afford to ignore the consequences of injuries. We must remove the barriers that have retarded the development of the specialized field of injury control. Many of these barriers were reviewed at the 1984 Conference on the Prevention of Injuries. The conference, from which the accompanying papers are drawn, provided an opportunity for participants to review the causes of injuries and the potential for their prevention. The diverse backgrounds of the participants enriched the work groups' discussions and allowed the various groups to explore the spectrum of contemporary injury control issues. Recommendations from the work groups form a far-reaching agenda for national injury control efforts.

With the emergence of injury control as a public health priority, opportunities are now available for a variety of developmental projects. These include designing and setting up surveillance systems and registries, epidemiologic research studies, and collaborative health services research on injury control programs involving Federal, State, and local health agencies.

The Centers for Disease Control (CDC) has designed a broad range of activities to assist in the development of injury control programs. Through agreements with the Dade County (FL) Department of Health, the Philadelphia Department of Public Health, and the Indian Health Service (IHS), CDC is developing demonstrations in the epidemiology and control of injuries to determine effective interventions for use at local levels. These systems include (a) surveillance to define injury rates and risk groups and (b) assessment of environmental hazards related to these injuries. Results of these activities will reflect the extent to which efforts have resulted in reductions in injury morbidity and mortality and the associated costs. These interventions are targeted on three different groups at high risk for injury morbidity and mortality: the elderly (Miami), poor blacks (Philadelphia), and Native Americans (IHS).

CDC also is involved in collaborative activities with a number of other injury programs initiated at State and local levels. Through technical assistance, consultation, and managerial training, including program design and implementation, data collection methods, and program evaluation, CDC is facilitating the development of programs to address various aspects of injury. A comprehensive handbook has been developed for assisting local program managers in implementing injury control programs (3). A variety of injury surveillance development activities also are underway, including a hospitalbased injury surveillance system, a standardized medical examiners system, and a practitioner reporting system. Increasingly, these systems will be tested and evaluated in diverse settings.

Other epidemiologic studies have focused on injury issues ranging from water slides, fireworks, and alcohol-related injuries to child restraint and seatbelt use. These studies have sought to clarify risk groups and events in order to improve injury prevention efforts. In addition, an atlas depicting injury mortality rates by county is being developed. This information will highlight counties with unusually high mortality rates for various types of injuries.

Schools of public health, especially, have recognized the importance of injury prevention as a national health priority. Several schools have incorporated injury research into their existing curriculums, and some have developed programs leading to special academic degrees in areas of injury prevention.

However, as with any emerging academic area competing for priority and resources, far more needs to be done. Appropriate sustained support remains an essential requirement to ensure that the role of injury control within this academic setting expands sufficiently.

A major activity to enhance injury prevention efforts is to increase substantially the number of educators and trainers in this field. This growth can be achieved through the support of research in academic settings and through scholarship support and funding of faculty positions.

Recent widely publicized reports on the opportunities for injury prevention underscore the high priority that needs to be given some efforts (1,4). This conference has underscored the need for a national effort that draws on the expertise of governmental agencies and private entities as well as the public's interest to reduce the toll of injuries in America. The task is imminently achievable; however, we must mobilize the efforts of many to accomplish these goals.

> Michael K. Gemmell Executive Director Association of Schools of Public Health

Vernon N. Houk, MD Assistant Surgeon General Director, Center for Environmental Health Centers for Disease Control

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