CAN ACCIDENTAL TRAUMA BE PREVENTED?*

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We are all aware of the remarkable achievements in disease therapy and prevention in the past several decades. Preventive medicine has become a practical reality in every day practice. Most infectious diseases have been controlled and some virtually eliminated. This has created a new order in the causes of death and disability. New health problems command the attention of the practicing physician as well as the medical investigator. One of these is accidental trauma.

Vital statistics show that in 1950 some 90,000 deaths in the United States were the result of accidents, a mortality rate of 60 per 100,000 population. Only cardiovascular disease and cancer deaths now exceed those due to accidents. The number of accidental deaths last year was about 4½ times the total number of Americans killed and missing in action so far in Korea. If we consider all battle casualties in World War II, the number of those killed, wounded, and taken prisoner combined were about one-eighth of the accidental injuries last year in the United States.

Accidents are now the leading cause of death from ages 1 to 25; second to heart disease in the broad age group 25 to 44; and fifth among persons 45 and over. Expressed in another way, fatal accidents cut off more years from the working life of the American people than any other single cause of death.

Like the visible portion of an iceberg, fatalities tell only a small fraction of the story of social and economic loss. For the beneath-the-surface portion, estimates only can be made. For every fatal accident, there are probably 100 serious enough to disable the individual for a day or more and many of these require medical attention.

Treatment of accidental trauma is an important part of the average doctor's daily practice. Despite this, physicians generally do not think of accident prevention as a part of preventive medicine. Once the injury has been treated, the essential facts obtained to satisfy the requirements of an insurance company, or the death certificate filled out, the physician is apt to consider his responsibility at an end. However, since accidents are growing in importance as causes of death and disability, it is necessary for physicians to determine their responsibility for the prevention of accidents as well as for the treatment of injuries.

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preschool ages, playing with matches and clothing ignited at open fires contribute materially to the death toll.

Drowning is one of the more frequent causes of accidental death in young children, particularly among 1- and 2-year-olds. About 400 deaths in these two ages are reported annually. Many of these fatalities occur in ponds or pools near the children's homes or sometimes in their own back yards.

Fatalities due to choking are by no means rare. Twenty-six deaths in 1946 to 1947 among boys and girls 1 to 4 in our experience occurred from the aspiration or swallowing of foreign bodies. Poisoning accounts for about 5 percent of all fatal accidents to young children. Many of these occur between ages 1 and 3, the inquisitive and "hand-to-mouth" period. The incidence of child poisoning is inadequately represented by mortality rates. For example, in a study of admissions to the Children's Hospital, Washington, D.C., covering a 4-year period, there were only two deaths, but 250 cases[3].

Lead poisoning is not a prominent cause of mortality in this age group but since the Baltimore City Health Department[4] has reported an increase in childhood plumbism in that city, more attention is being given to its study and prevention. This is a somewhat different category from most other accidental poisonings in children. It does not have the dramatic or clearcut relationship between cause and effect. The diagnosis is frequently made without adequate laboratory or epidemiological study to verify that the child has ingested and absorbed lead. For example, at the Children's Medical Center, Boston, where Byers[5] has been making a careful investigation of suspected lead poisoning cases of 33 children referred because of lead poisoning in the past three years, the diagnosis has been confirmed in 18 cases; the condition was not present in 8; and in 7 the diagnosis as yet has not been determined. More knowledge is needed about childhood plumbism. Physicians in New England can contribute by referring suspected cases to the Children's Medical Center for study. Efforts are being made in Baltimore, Cincinnati, and elsewhere to create special facilities to aid physicians in the diagnosis of this serious and frequently ill-defined condition.

The cause in young children is usually due to pica and the source of lead is usually lead-containing paint on window sills, play yards, toys, etc., which have been repainted by amateurs. Inside woodwork is rarely painted with a lead-containing paint by professional painters and reputable toy and juvenile furniture manufacturers do not use toxic paints on their products. Prevention must be centered chiefly on educating parents about the danger of permitting children to chew or suck on painted objects or surfaces.

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