



The Facts *about* Safety Belts

by Bruce F. Andreas, M.D.

THE POWERFUL CAR swerved wildly on the wet country road and crashed. The occupants were brought to me. They were dead—needlessly dead. From experience I knew that with certain precautions they might have crashed and lived.

Who am I to say this? I'm autopsy surgeon to the coroner, a specialist in pathology, deputized by the state to investigate causes of death. I see these accident victims day after day, and in repetition lies an answer.

I'm going to tell you exactly how 38,000 Americans died such unnecessary deaths last year and how their deaths might have been prevented. I'm going to tell you how you can save your own life, and the lives of our children, and how you can avert crippling injury. I'm *not* going to tell you about cutting down accidents.

Don't think it can't happen to you. There are 100 Americans living today who will be dead tomorrow because they thought just that. In the same 24 hour period 3,400

others will be injured, one every 25 seconds around the clock. Placed end to end in their hospital beds those injured yearly would reach from Canada well into Mexico, or from Boston to Miami Beach. Those killed by autos in the last 35 years comprise a larger group than the present populations of Wyoming, Vermont, Delaware, and Nevada combined. Some of you will have contributed to these figures within a year of reading this. You can protect yourself if you know how.

First let's clear our thinking and acknowledge that accident prevention per se is not the whole answer. Human nature, mechanical failure, environmental conditions will always produce *some* accidents. In 1954 they produced nine and one-half million of them, one for every six cars on the road! This, in spite of all our preventive efforts. We must find another approach.

"But," you may ask, "what other approach is there? Can we reduce deaths without reducing accidents?"

The answer is an emphatic "Yes, we can!" People die from injuries, not from accidents. And we can fight the problem directly at that level.

Where do we start?

First, study cases and statistics, break down injuries into groups.

Then, determine the mechanism of injury in each group.

Finally, eliminate or counteract the offending mechanism.

GROUPING the injuries is no longer a problem. Recent medical journals contain numerous accurate articles which categorize and discuss these injuries. These studies reveal that a remarkable majority of the fatalities are due to injuries to the head or chest. This implies damage to either brain, spinal cord, heart, lungs, or great vessels. Indeed, one eminent neurosurgeon has estimated that as high as 70 per cent of the deaths can be attributed to injuries to the head.

Death knows many forms. Why then, you may wonder, should such a select few appear so consistently?

There are two reasons. The first is that when it comes to minute-to-minute maintenance of life these parts are extremely vital. Injury to the brain and spinal cord affects the entire nervous system, often resulting in irreversible coma or respiratory paralysis. Laceration of the heart or great vessels causes

fatal hemorrhage almost instantly. Trauma to the lungs may suppress breathing and result in rapid death. Generally injuries elsewhere can be withstood until aid is obtained.

The second reason is that these are the areas most exposed to injury in today's vehicles. This physical exposure coupled with the physiologic importance of these organ systems results in the high mortality rates we are anxious to reduce.

Having seen what type of injuries are most common we must now learn how they occur, and how they can be prevented.

Imagine yourself driving into a concrete wall at 50 miles per hour. When the car strikes, you fly on at that same speed until halted by the rigid dashboard or some other object. The injury itself is caused both by the object which you strike, and by the force with which you strike it, in this case your uncontrolled motion.

If we can keep you in your seat, keep your head away from the killing windshield and dash, we have made a big step toward saving your life. You may claim this won't work. I'll substantiate my point with cases.

It was mid-winter as a heavy car surged up the icy state highway toward our maternity hospital. Within were an expectant mother, her driver, and an older couple. A mile ahead a small sport car

cruised toward them. Its two occupants were strapped into their seats with new canvas seat belts, similar to those used in airplanes.

As the two cars drew together one skidded into the opposite lane. They collided head on. The young mother was hurled forward and died with a fractured skull and a huge, infanticidal rent in her pregnant abdomen. Her driver's chest was fatally crushed by the steering column. The two older passengers were seriously, but not fatally, injured.

The two men in the sport car, however, climbed from the wreckage with only lacerations. Their seat belts had held them firmly in place, and away from the killing dash. They were bruised and shaken, but walking.

In this tragic instance two vehicles underwent similar decelerative forces. The comparative trauma to those riding within is our lesson.

Or compare these two cases. Although unrelated, they are almost identical, except in outcome.

In both cases a fast-moving vehicle suddenly stopped and was struck from the rear by the victim's car. In both cases damage sustained was severe.

In the one car the driver was thrown against the steering post and critically injured, while a passenger struck the dashboard and died instantly with a crushed chest.

The other car was driven by a young intern's wife whom I had

heard ridicule the new belts a week before. Today she had fastened them. When the car skidded helplessly on the wet pavement she braced for the collision but was held in her seat by the belt. She received only a small scratch on the lip and states that the belt most probably saved her life, certainly prevented serious injury.

UNCONTROLLED motion is again the villain in other types of injuries. We've all heard of cases in which a slowly moving car skids helplessly into another object, catapulting a passenger through the easily-opened door onto the merciless concrete. These freak accidents happen with the best of drivers, and fractured skulls are a frequent result.

Stronger door latches are one answer which manufacturers are investigating. Seat belts are another.

Although head injuries are perhaps most common in riders, chest injuries are the greatest killer among drivers. In a recent survey of 23 consecutive drivers autopsied in our county, 16 had received fatal injuries to the chest, either alone or coupled with other trauma.

These stories are always the same. The car strikes some immovable object, the driver is hurled toward the steering post, which suddenly has become a merciless ram waiting to batter his unprotected ribs and crush the life

from his heart. If he braces against the wheel it most probably snaps with the same result. Crushed chest, punctured lungs, ruptured heart, are injuries for which we doctors can usually do little.

Steering mechanisms have been suggested which will prevent this, that will give slowly, or partially collapse, to take up the impact. But you won't find them on today's standard models. Safety still remains a luxury in this respect.

Another prominent group of fatal and disabling injuries are the "whiplash injuries" to the neck. These occur when your car is struck from behind. The sudden jolt snaps your head back and perhaps forward again like a cracked whip. Chances are that your spine will be bent so sharply that the bones will compress or sever the soft spinal cord, causing permanent damage to its component nerves. The result is paralysis of the arms, legs, and everything below this point, possibly including fatal paralysis of the muscles of respiration. Once severed, no surgical or medical procedure can induce the lacerated ends to grow together again.

Prevention of such injuries is simple. The necessity of posterior support for the head was recognized long ago by builders of aircraft. Yet nothing has been done to handle this problem in our equally dangerous vehicles that stay on the ground.

FOR A FEW more pointers let's look at that wild neighbor kid who built his own "hot rod." He races at the speedway and is the last person you'd have thought of in connection with safety. Actually his car is safer than yours and has safety features which you can't buy on the market.

Watch him get in. He straps himself solidly into a well-stuffed, bucket-type seat, and is confronted by a padded leather interior. The chrome levers and knobs, those veritable bayonets which innocently leer from your own dash, have been removed or recessed in the padding. Over his head, running down to the frame, are strong steel crash bars, which will support the car if it rolls, keeping it from crushing in on him.

He's carefully eliminated the objects which injure, and with his belt has harnessed the forces which kill. Strapped in snugly he literally wears the car like a suit of armor. He can roll and crash and not get a bruise. He knows that at the track where he's going this may happen. You pretend where you're going it won't. With 1,250,000 people injured yearly, how can you believe that? Is your road any safer than his?

The injured and dead can lead us toward a few more improvements in design. Rear seats must be securely anchored to prevent them from tearing loose on impact and striking a fracturing blow to

the neck. Practical bumpers might be designed to actually absorb the impact, lessening the jolt on the passengers. Windshields might be developed to fly loose when struck, or stretch with the blow.

In a day of six-lane highways, 300-horsepower engines, and decelerative forces equal to those encountered in fighter planes, it would seem that such safety measures would be a natural requisite to good automobile design. But until recently the need has gone completely unheeded by manufacturers and public alike. Under the

guise of inevitability this unnecessary highway murder has gone on uncontrolled, and even uncondemned. As a result over one million Americans have died.

Let's do something about this. Medically we know it can be done. Day after day these helpless victims pass through our country's morgues, twisted and torn and dead from injuries which might have been prevented.

If we can't live without accidents, let's learn to live with them. Take your lesson from the dead—learn to crash and live.

"I have now disposed of all my property to my family. There is one thing more I wish I could give them, and that is the Christian Religion. If they had that and I had not given them one shilling they would have been rich; and if they had not that and I had given them all the world, they would be poor."

PATRICK HENRY, VIRGINIA,
His Will

"There is an insidious campaign of false propaganda being waged today, to the effect that our country is not a Christian country but a religious one—that it was not founded on Christianity but on freedom of religion.

"It cannot be emphasized too strongly or too often that this great nation was founded not by 'religionists' but by *Christians*—not on religion but on the *Gospel of Jesus Christ*. For this very reason, peoples of other faiths have been afforded asylum, prosperity and freedom of worship here.

"In the spoken and written words of our noble founders and forefathers, we find symbolic expressions of their Christian faith. The above quotation from the will of Patrick Henry is a notable example."

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FOREIGN AID

Picks Your Pocket Again

by

Eugene W. Castle

IT'S HAPPENED to the taxpayers again! After all the bold talk, the quasi-pledges, the "Never Agains," the men on Capitol Hill have tamely surrendered once more to the power and patronage of the White House. They have voted another year of billion-span-gled aid.

This year the "new" money total is \$3,766,570,000, not as much as the White House demanded but still a billion more than the previous International Cooperation Administration (ICA) appropriation. Mutual Security, as they like to call it, has ridden out its worst storm!

A little over a year ago, few Washington trend-watchers would have given a plugged nickel for the chance that Mutual Security, in its present form, would survive beyond its allotted fiscal life. Two years of Harold Stassen's unctuousness had thoroughly sickened some of the influential Senate and House leaders on the whole foreign-aid program. The respected Senator Walter F. George, who was to head the Foreign Relations Committee in the incoming Democratic Con-

gress, had declared, as early as July 1, 1953, that "as far as I am concerned, Mutual Security is going into its last fiscal year this morning." Others were talking in the same temper.

To get out from under, Congress in 1955 let the autonomous old Stassen-headed Foreign Operations Administration die a natural death. It then set up the International Cooperation Administration as a unit of the Department of State to carry out the program on what Congress then believed would be a rapidly diminishing one, leading to the full liquidation of the majority of foreign-aid projects.

When the former Taft law partner, John B. Hollister of Cincinnati, was appointed to head the ICA, prevailing Washington sentiment held that foreign aid was, as Congress ordered, in liquidation. The surmise appeared to be confirmed when, on December 19, 1955, Nelson A. Rockefeller resigned from the President's Advisory Staff in apparent protest against too little foreign aid. At last the White House seemed to be coming