

Football Risks Examined

➤ IS PLAYING FOOTBALL too risky for young men?

If a statistician were faced with the question, "Should my son go out for football or drive a new car during his freshman year at college," he would have considerable researching to do.

A report on calculated risks of sports fatalities in the *Journal of the American Medical Association*, 197:894, 1966, examined the problem, comparing college and high school football, power boating, all types of auto racing, horse racing and motorcycling deaths.

Using totals for 1960-1964 from the Metropolitan Life Insurance Company's Statistical Bulletin, Dr. Kenneth S. Clarke of the AMA department of health education had this to say:

"Linking the statistical 'truths' that males in the high school population had an overall mortality of 130.1 per 100,000 and a football mortality of 0.4 per 100,000 is an unfair comparison despite a common denominator of 8,133,000. Only one-tenth of that population was exposed to football hazards."

The participating population figures for activities, Dr. Clarke said, are not

always available or indicated when the death rate is given.

To be statistically valid, motoring data, for example, must represent all males in the age group, the proportion who ride regularly in a motor vehicle being unknown.

Calculated risk is a much bandied yardstick without a method of strict measurement, or "calibration."

Attempts to calibrate the calculated risks in sports usually are seen in the measure of one sport against another, he pointed out.

"One recent survey of available sports-fatality data received considerable journalistic attention despite the report's preface that the hazards of different sports vary widely and corresponding data concerning the relative hazards are lacking," he said.

In 1964, for every 25,000 varsity football players, one died from football-related causes; each football-related fatality occurred for approximately every three million man-hours exposure.

"Calibration of this risk of death from football demonstrated numerous pitfalls in judging the relative hazards in sports from fatality data," Dr. Clarke concluded.

"Moreover, we do not know what the football candidate otherwise might have been doing during those hours on the football field. Certainly he would not choose football over riding in a car on the basis of the relative risk of death resulting from this exercise."

Fatality rates do not depict the conditions under which the potential hazards outweigh the potential benefits. What benefits will a young person gain from sports that carry with them a calculated risk of death or accident?

"What constitutes undue risk from participation in sports remains intuitive," Dr. Clarke said.

He thinks a sound research design must be used in evaluating sports programs so that undue risks can be put on an individual basis.

Scientific methods have not been applied to estimates of calculated risks in sports. We know more about the short-term and long-term effects of smoking and of maternal rubella than we do about the beneficial and injurious effects of the recreational activities that occupy the time of millions of adults and children, it has been pointed out in other reports.

Ultrasonic Scanner Tells A Good Steak by Its Echo

➤ THE SAME kind of echo sounding equipment used during World War II to detect enemy submarines will soon be used to detect the quality of beef on the hoof.

A portable ultrasonic scanner to measure the amount of fat on livestock is being developed by Commonwealth Acoustics Laboratory engineers and Queensland University veterinarians in Sydney, Australia.

Australian scientists are aiming at a rugged scanner system to be used on farms, saleyards and abattoirs. An experimental model has been produced, but so far it has not been tested on animals.

In practice the scanner would be run over an animal, bouncing ultrasonic signals off the skin, the fat and the denser meat or muscle.

The echoes would show on a screen, and from the different readings the operator could judge the animal's fatness or leanness. Buyers could use it to pick the meat on the hoof, while it would help breeders pick suitable stock.

A commercial unit would take at least a year to produce. Eventually, however, individual farmers should be able to buy them.

Are You A Bore?

A noted publisher in Chicago reports a simple technique of everyday conversation which can pay you real dividends in social and business advancement and works like magic to give you poise, self-confidence and greater popularity.

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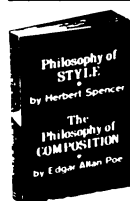
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