

THE SUPER BOWL CAN KILL YOU

*Do you think you have to play in the Super Bowl to be injured by all the action on game day? Think again.
You may not be as safe as you think.*

DYING TO WATCH THE GAME

In 2008 the *New England Journal of Medicine* published a German study of cardiac emergencies on the days Germany played in the 2006 World Cup soccer championships. The results were surprising: The number of cardiac emergencies among German men more than tripled, and the number among German women nearly doubled. The researchers attributed it to the excitement and stress of game day, and speculated that lack of sleep, overeating, overconsumption of alcohol, and excessive smoking, all common on game days, were contributing factors. Could the Super Bowl have a similar effect on American sports fans? Dr. Gerhard Steinbeck, one of the study's authors, thought so. "I know a little bit about the Super Bowl," he told reporters. "It's reasonable to think that something quite similar might happen."

L.A. STORIES

In 2009 researchers at the University of Southern California's Keck School of Medicine decided to find out. They studied a different, more gruesome statistic, that of death rates for Los Angeles county on Super Bowl Sunday during the two most recent years that Los Angeles sent a team to the big game: 1980, when the L.A. Rams lost to the Pittsburgh Steelers 31-19; and 1984, when the L.A. Raiders defeated the Washington Redskins 38-9. The researchers studied the death statistics for game day, and for two weeks after each game. They compared these figures to similar periods in 1980-83 and 1984-88, when Los Angeles didn't have a team in the Super Bowl, and to periods after the end of football season, when there were no games at all.

Their findings for 1980: "The Super Bowl-related days during L.A.'s losing game were associated with higher daily death rates in

L.A. County for all deaths, circulatory deaths, deaths from ischemic heart disease, and deaths from acute myocardial infarctions (heart attacks).”

That was for the year that the Rams lost the Super Bowl. What about 1984, when the Raiders won it? “By contrast,” the study’s authors write, “the Super Bowl-related days during the winning 1984 game were associated with a lower rate of all-cause death.” In other words, when an L.A. team *won* the Super Bowl, the death rate in L.A. County not only didn’t rise, it *dropped*.

AVOIDING MYTH-UNDERSTANDINGS

It would be easy to conclude from these findings that when a team loses the Super Bowl, fans die, and when it wins, fans gain a new lease on life, even if only for a couple of weeks. But there’s another possibility: The critical factor in determining whether fans live or die may not be whether a team wins or loses, but rather how exciting or stressful the game is to watch.

The 1980 Super Bowl was one of the most dramatic in history, with the lead changing from one team to the other *seven* times, a record for the Super Bowl. The Rams were leading 19–17 at the end of the third quarter, but the Steelers scored two touchdowns in the fourth quarter to win the game. It was a stressful game to watch, no matter which side fans were on.

THE BORING BOWL

The 1984 Super Bowl, by comparison, was a blowout: The Raiders scored their first touchdown just five minutes into the game and built on their lead from there. An impressive win, but one with very little drama. (And besides, the Raiders only moved to Los Angeles in 1982, so the Southern California fans’ emotional ties to the team weren’t very strong to begin with.) The decline in death rates in L.A. County in 1984, therefore, may be attributable not so much to the victory, but rather to the lack of drama, plus the fact that so many people were safe at home watching the game on TV, instead of out and about where they’d be more likely to get into some kind of trouble. “In conclusion,” the study’s authors wrote, “the emotional stress of loss, *and/or* the intensity of a game played by a sports team in a highly publicized rivalry such as the Super Bowl, can trigger total and cardiovascular deaths.”

PILING ON

These and other studies have found that people with a prior history of heart disease, or coronary risk factors like high cholesterol, high blood pressure, diabetes, or a history of smoking, are at greatest risk for experiencing cardiac problems during the Super Bowl. When you're under stress during the game, your body can release adrenaline and other hormones into your bloodstream. These, along with small proteins released by an overstimulated nervous system, can cause atherosclerotic plaques in diseased arteries to rupture, causing irregular heartbeats, heart attacks, and even death. The danger increases when at-risk fans gorge themselves on sugary and fatty foods, the staples of many a Super Bowl party, and wash it all down with too much beer.

SUPER BOWL BATHROOM DEFICIT DISORDER

But what if you don't have a history of heart problems or coronary risk factors? Can you watch the game without fear of ending up in the emergency room? Maybe not. There's another illness specifically associated with the biggest game of the year, and it has to do with the fact that Super Bowl commercials have become as popular as the game itself.

During ordinary football games, fans take advantage of the commercial breaks to go to the bathroom. During the Super Bowl, however, a lot of people want to see the commercials. They put off pit stops until their bladders become so full that the muscles they use to relieve themselves aren't strong enough to generate a urine stream. "Most of the time the commercials are the best part of the Super Bowl," says Dr. Jeff Kalina, associate director of emergency medicine at the Methodist Hospital in Houston, Texas. "We have seen people who have to come in and have a catheter put in to relieve themselves." The lesson here: *Go to the bathroom.*