

The Charlotte Observer

This year, auto racing lost a legend, Dale Earnhardt. Thirty-two more people died, including a grandmother, a soybean farmer and others pictured below.

Each year, an average of 22 drivers, fans and workers never come home from races.



Death at the track

RACING'S HUMAN TOLL

RISKS IN THE STANDS

THE FANS

It's one of racing's worst fears: A fan dies at a track. Since 1990, it's happened to at least 29 spectators.

PAGES 4-5

RACING'S DEAD

260 STORIES

Young and old, professionals and blue-collar, these are the sport's losses.

PAGES 6-9

SAFETY OVERSIGHT

WHO'S WATCHING

Racing is under pressure to be safer, but there's little agreement on who should set standards.

PAGES 10-11

BY LIZ CHANDLER
Staff Writer

When someone dies in auto racing, it's often called a freak thing or a fluke — so isolated and rare it can't happen again.

But deaths aren't as rare or isolated as the racing world believes. An Observer investigation found at least 260 people across America died in auto racing since 1990. Patterns are evident; deaths occur an average of 22 times a year.

Among those killed were 29 spectators, including five children. An additional 200 drivers and fans suffered traumatic injuries.

In this year alone, a grandmother in a wheelchair was killed in the grandstands at an Ohio track; a Florida driver was decapitated when he hit a guardrail; and driver Dean Roper died 10 months after his son, Tony, was killed in a wreck in Texas.

"That is not acceptable," said Lowe's Motor Speedway President H.A. "Humpty" Wheeler, who like other racing leaders guessed the death toll was half of what The Observer found. "This is something the industry has to deal with. We have a moral obligation."

The toll also surprised former Indy racing champion Mario Andretti. "We know how to make cars go fast," he said. "Now maybe we should spend even more time and energy in making cars safer."

Stock car racing legend Richard Petty, whose grandson died in a racing wreck, was surprised by the number, but characterized it as tolerable, given the 12-year span of the study. "That's a lot of racing," he said.

No one keeps track of how many people die in racing. Since most deaths are deemed freak accidents, the sport has been slow to detect patterns and make changes that might save lives.

In a study of fatal wrecks since 1990, The Observer found these patterns:

- Fences and barriers fail regularly.
- In addition to the 29 spectator deaths, at least 70 were injured. Track owners say car parts and debris commonly clear fences, which vary in height from about 9 to 22 feet on oval

tracks, and, typically, 4 to 6 feet on drag strips. Walls and guardrails have failed to keep cars on smaller tracks. Spectators are allowed into high-risk areas; some tracks allow children into garages and pits, the least protected areas.

- Potentially dangerous drivers are allowed to race.

Except in top divisions, drivers are rarely screened for experience or health problems. Since 1990, at least 32 drivers died from heart attacks while racing, sometimes hurting other drivers or fans. Children too young for a driver's license can race at many tracks. Drivers with revoked licenses or drunk driving convictions are allowed to compete.

- Head and neck injuries killed at least half the drivers.

Superstar Dale Earnhardt's death in February drew attention to the need for head restraints, which NASCAR in October mandated for its top-level races. But a majority of U.S. racers don't wear restraints. Most track owners and racing groups don't require them.

- Medical response can be inadequate.

Emergency preparedness varies, depending on a track's size and resources. In at least 18 instances, families of dead and injured drivers say the rescue re-

SEE INVESTIGATION | 2N

UNFIT DRIVERS

ON THE TRACK

The ill, the reckless and the young can race at America's tracks, which often don't screen drivers.

PAGES 12-13

WHAT'S NEXT

SOLUTIONS, CHANGES

How can racing be safer?

Drivers, safety experts, racing organizations and others offer their ideas.

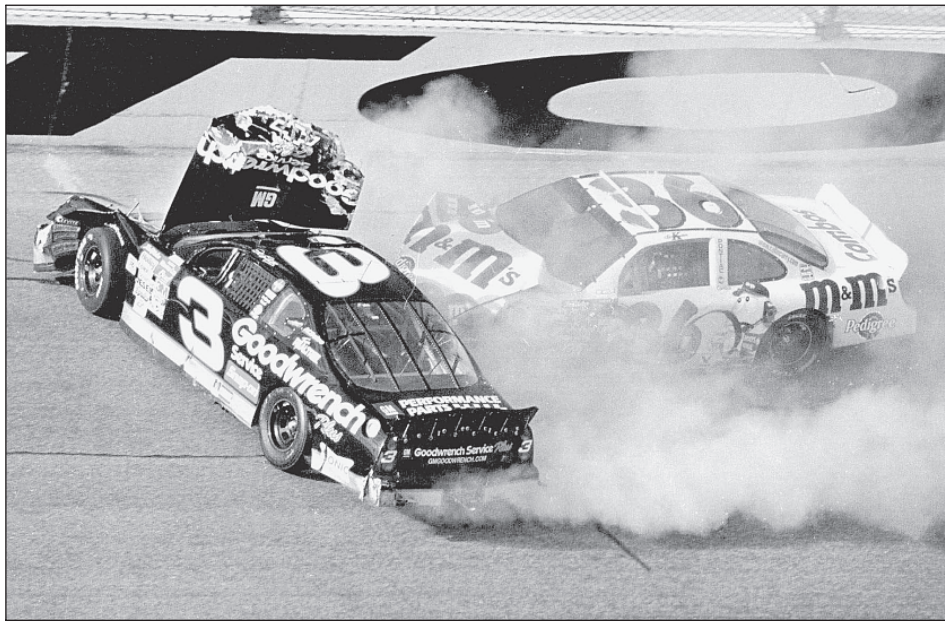
PAGES 14-15

TRACK DIAGRAM

DANGER ZONES

A detailed look at the most common trouble spots at tracks for fans and drivers.

PAGE 16



GLENN SMITH / ASSOCIATED PRESS PHOTO

This Daytona 500 wreck, which killed racing legend Dale Earnhardt (3) on Feb. 18, prompted NASCAR to look more closely at safety. In the months since, NASCAR has mandated head restraints and is planning a research center for safety and competitive issues. NASCAR also plans to install crash data recorders in its premier cars.

DEATH AT THE TRACK

Fatal accidents aren't flukes: The average is 22 a year

A surprising toll: 260 dead

Investigation from IN

sponse was inadequate. Some small tracks provide untrained rescuers and no ambulances or firetrucks.

"Racing has become so popular that everybody wants a piece of it...but no body wants to take responsibility for safety," said Dr. Terry Trammell, an Indianapolis surgeon and consultant for Championship Auto Racing Teams (CART). "A few groups try to do the right thing, but the industry is so fragmented that you have some terribly unsafe racing going on."

In more than 400 interviews, plus newspaper and Internet searches, The Observer documented 260 deaths in all levels of U.S. auto racing - from premier Winston Cup and Indy car events to dirt-track races. The study began with deaths in 1990, when more records and databases became available on the Internet. The study excluded deaths from youth go-karts, motorcycles, monster trucks, mud racing and racing schools.

Among the dead were 204 drivers, 29 spectators, 24 track workers and crew, and three journalists. The tally is likely low because some deaths receive little, if any, media attention.

The study shows, on average, 14 drivers die in crashes yearly; three others die in the stands, on the field.

For comparison, in football, 30 players die from injuries playing the sport each year, and nine from health problems, mostly heart disease, on the field.

But more people play football than race. About 1.8 million play football each year, from sandlot to pro leagues. Estimates of drivers range from 50,000 to 400,000. Using the highest number, which results in the most conservative estimate, racing's rate of death is more than five times that of football's.

Dangerous, with a growing appeal

In the 1990s, auto racing's popularity boomed. Attendance doubled at NASCAR's Winston Cup events. Eleven major race tracks were built or planned for stock cars and the sleek open-wheeled cars.

The sport went Hollywood with its marketing, and to Wall Street, where stock in racing organizations is now traded. In 2001, NASCAR landed a six-year, \$2.4-billion television deal.

The sport's speed and power, which draw fans, also make it inherently dangerous. Promoters say they need danger.

"It's not a blood sport people want. The loudest roar you'll ever hear from a crowd is when a driver who appears to be seriously hurt gets up and walks away," said Lowe's Speedway President Wheeler. "But you've got to walk the



JEFF SNIER - STAFF PHOTO

Blaise Alexander Jr. moved to the Charlotte area to take advantage of its status in the racing industry. He died Oct. 4 at Lowe's Motor Speedway. Above, in his hometown of Montoursville, Pa., pallbearers walk away from his hearse.

line - and it's a tough line to walk. You've got to have some danger or it gets boring and nobody wants to watch."

Leaders say racing is safer than it once was because they constantly evaluate and improve safety. But even racing insiders call it a reactive industry with too many deaths.

"We recognize that we need to get ahead of the curve instead of constantly being reactive," said NASCAR vice president Jim Hunter, whose stock-car governing body is among the largest of 200 groups that organize races.

NASCAR officials have been "near-detrails" in their data collection and accident investigation, Hunter said. Earnhardt's death, and the questions it raised, intensified NASCAR's attention to safety. In addition to mandating head restraints, it plans to install crash data recorders in its premier cars, as CART has done. It also plans a research center that will study both safety and competitive issues.

"It's a whole new world since Dale Earnhardt died," said Hunter.

But even Earnhardt's death hasn't united the fragmented racing industry.

Except for a few elite racing groups, most of the 200 race organizers conduct little - if any - accident analysis, which could more quickly identify patterns or risky conditions. When safety improvements are made, they aren't adopted industrywide. And safety information isn't routinely shared among groups, whose marketing and research is often considered proprietary.

"These are basically 1,000 independent businesspeople across the country," said Allan Brown, publisher of The National Speedway Directory. "It's very difficult to pin down what's going on out there."

About half of all U.S. races are controlled by those 200 racing organizations, which generally schedule and promote the events. Most make few - if any - demands on driver or fan safety.

About 10 of those groups, the largest and most influential in the U.S. racing industry, control about 25 percent of the races across America, said Brown, who contacts almost every track annually.

Among the most popular and safety-conscious are CART and Indy Racing League, which have about 150 drivers. Their fendless cars top 200 mph.

They collect detailed information on every accident within their divisions, which they use to help identify patterns and reduce injuries. Since 1990, CART has had two drivers die in the United States. IRL has not had a driver death. Both groups, however, have had accidents that resulted in fan deaths. Now, they require that tires be tethered to cars.

The balance of the 200 racing groups control another 25 percent of races. Most of those are merely networks of drivers who just want a place to race.

Then there are the independents - the small-track owners who stage their own races and run their own tracks as entrepreneurs. They control the remaining 50 percent of races, and are the most cost-sensitive to safety measures.

"If some group wants to put too many rules on me, they don't come in here," said Russell Hackett, owner of Caraway Speedway in Asheboro. "Nobody's going to tell me how to run my business."

"His track is safe, he said, because: 'You learn through years of doing it.' Carnsmy's one death, he said, 'was a freak thing. It was just the way he hit.' Racing organizations generally leave

Who Died, and Where

Details about those killed at racetracks since 1990.

THE DEATHS

- Deaths occurred in 44 states at 190 racetracks, drag strips, road courses and off-road courses.
- The dead were 204 drivers, 29 spectators, 24 track workers and crew, and three journalists.
- At least 32 drivers have died of heart attacks.

THE STATES

- Florida had the most at 28; California, 27; Indiana, 15; North Carolina was fourth at 14. South Carolina had two.
- North and South Carolinians killed at U.S. tracks total 25. That's nearly 1 in 10 of all U.S. deaths.

THE DIVISIONS

- NASCAR had at least 36 deaths of drivers and fans - more than any other group.

THE TRACKS

- More died at Lowe's Motor Speedway than at any other U.S. track four drivers and three fans.
- Major raceways - which make up 4 percent of America's 1,300 tracks - accounted for 20 percent of deaths.

safety to the track owners. Track owners tend to rely on insurance companies to tell them what's safe.

Insurance companies say they're not safety experts either. They sell insurance based on risk.

"Just because a track is insured doesn't mean it's safe," said Len Ashburn, a retired insurance agent who specialized in racetrack policies.

Dr. Trammell, the CART consultant, visits tracks to help CART determine hazards. "There's no manual for how you build or inspect a track, and because there's no book and there's nothing organized, track owners build something just like all the rest of the tracks," he said. "All you do is perpetuate the same old mistakes."

The Observer study found most deaths happened at the small tracks. But major raceways - which make up 4 percent of America's 1,300 tracks - accounted for a disproportionate 20 percent of deaths.

NASCAR had at least 36 deaths of drivers and fans - more than any other racing group. Nineteen died at NASCAR-run races, including eight in

SEE INVESTIGATION | NEXT PAGE

DEATH JUST PART OF STORY

Injuries at track alter lives forever

In addition to the 260 people who have died in racing since 1990, at least 200 others suffered traumatic injuries. Among them are:

JAY WRIGHT, 51, a NASA engineer from Shore Acres, Texas, severed his spinal cord in two places when the car he was driving crashed in practice at Road Atlanta Motor Sports Center in Georgia in 1993. Doctors say he will never walk.

VERNON HOLZER, 29, a welder who was living in Brookings, S.D., can't speak or hold up his head six years after a tire and other car parts hit him while he worked as a pit crew member at Lake County Speedway in South Dakota. Holzer blinks his eyes once for yes, twice for no and is fed by a stomach tube. A family friend visits him in his nursing home daily to exercise his arms and legs.

MICKEY HUDSPETH, 35, a heavy equipment operator in Ronda, N.C., nearly severed his left hand in an accident at Atlanta Motor Speedway in 1996. Doctors amputated it at the wrist. He began racing again in 1997, using a sophisticated prosthetic hand.

DENNIS TERNING, 36, a Cokato, Minn., farmer and track owner, is paralyzed from his chest down, except for limited use of his right arm. He was injured in 1993 while competing at Arlington Raceway in Minnesota. An assistant bathes and dresses him, and helps him in and out of his wheelchair.

DOMINIC CICERO, 21, a racing instructor from Vancouver, Wash., was driving a high-speed kart last year at Pat's Acres Karting Complex in Canby, Ore. when he was pitched into the air after a crash. The impact of his body hitting the ground ripped off the top third of his right lung, and doctors could not reattach it. Cicero is racing in England.



JEFF SINER - STAFF PHOTOS



A school superintendent's story

With help from his brother, Frank, and his wife, David Anspaugh undergoes water therapy three times a week to help rebuild his muscles and regain his strength.

Anspaugh, 53, of Sturgis, Mich., is still in a nursing home more than a year after an Aug. 26, 2000, accident at The Milwaukee Mile. The Waldron (Mich.) Area Schools superintendent was driving about 100 mph when his accelerator apparently stuck and his car crashed into the first turn wall, slamming his brain against his skull.

Anspaugh can feed himself, brush his teeth and shave with an electric razor. But his speech is erratic. And when he goes to races now, he rides in a wheelchair.

Will he ever race again?

"He talks about it," says his wife, Charlotte. "I don't really want him to, but that's a decision he's going to have to make."

— DIANE SUCHETKA

Investigation from previous page

its Winston Cup series, where speeds are highest. The other 17 died at small tracks where NASCAR sanctions races but leaves safety to local operators.

NASCAR uses the short-track races to help develop drivers and widen its exposure, NASCAR's Hunter said. "We try to pick tracks and owners we think are responsible, but we don't run the race. It's the track's responsibility to make sure they run a safe event."

This year has been among racing's worst, with 33 deaths, 29 at small tracks. In June, seven drivers died in seven states, all at small tracks. A wreck at Lorain County Speedway in Ohio killed one fan and hurt 13.

"I almost lost my children at a sports event," said Ginger Jakupca of Akron, Ohio, whose children were injured. "There's just no excuse for that."

Are fans protected?

Depending on a track's size, protection for fans ranges from reinforced fences and concrete walls to dirt mounds, which can serve more as launch pads than shields.

Cars and parts can turn into lethal projectiles. Drivers crashed through - or over - barriers, striking scoreboards, flag stands, trees and bleachers.

A 10-year-old boy and his younger sister were killed in 1993 when a tire cleared the fence at a small Kansas track. Three fans died in 1998 in Michigan, and three more in 1999 near Charlotte, when car parts cleared the fences at two major tracks.

Protection is particularly poor around infield, garage and pit areas - where spectators wander amid working crews and moving vehicles. Fences and barriers in those areas are typically less substantial than those guarding stands.

At least nine spectators and 12 crew and track workers died in pits and infields.

Rene Bourgois, 34, was killed and 21 were injured at Stockton (Calif.) Speedway in 1993, when a car crashed through a pit fence and into seats for drivers and crew. A father of triplets died at an Auburn, Mich., track in 1999 when a car hit him in the infield. And in 1996, at Indiana's Salem Speedway, a 7-year-old girl visiting her father in the infield was killed when a tire hit her head.

Some tracks bar fans from these high-risk areas; others charge them extra to visit. People who enter the infield and pits must sign waivers promising not to sue - even when race organizers are negligent. Courts typically uphold such waivers, which allow tracks to avoid installing safety measures.

"You know what those waivers do? It gives them the power to kill you, and there's nothing you can do about it," said Ron Landrum, whose 71-year-old

father was killed in 1996 by a tire in the pit at Texas' Thunderbird Speedway.

Drivers take the risk

Richard Petty best defines drivers' acceptance of fate. His grandson, Adam, died in 2000 when his car struck a wall in New Hampshire. He doesn't blame racing. "If he was in an airplane, we wouldn't blame airplanes," he said.

Drivers need to believe it won't happen to them. "You get a guy who drives a race car, he's a little like a hunter who could get shot, but he's never thinking about getting shot," Petty said.

Families of drivers also have to accept fate. They have little recourse because drivers, too, sign waivers that release organizers from responsibility.

The youngest driver to die since 1990 was Jimmy Olson, 15. He suffered head injuries last year when he crashed his pickup into a concrete wall at Wisconsin's Lake Geneva Raceway. He wasn't wearing a head restraint, and didn't have a driver's license. Most states, including the Carolinas, don't require a license to race.

Lowe's speedway President Wheeler allows children as young as 12 to race against each other in smaller, less powerful cars. But putting a child in a full-size car to race with adults, "is like giving a kid a .357 magnum with a feather-light trigger and telling him to scratch his head with the barrel," said Wheeler.

California's Del Quinn - known as "The Mighty Quinn" - was the oldest driver to die. The 68-year-old retired electrician had crossed the finish line at Hanford's King Speedway when he had a heart attack in 2001.

In 1997, at a now-closed speedway in Rutherford County, N.C., a driver had a heart attack and careened off the track,

killing a retired truck driver who pushed his girlfriend to safety.

Inexperienced drivers also elevate danger. Most small tracks don't screen drivers for experience. Large tracks, too, host events for the inexperienced. At Lowe's Motor Speedway, three drivers were killed in separate races for novices.

ARCA (Auto Racing Club of America) is a developmental division that helps drivers move from short tracks into the large ovals, but the group draws criticism for its drivers' skills.

Julius "Slick" Johnson of Florence, S.C., died at Daytona in a 1990 ARCA race. His car went into a spin; a driver behind him slammed into his car.

"I didn't want him to go," said his wife, Janice. "We all knew there were going to be a lot of rookie drivers."

Rescue teams often lacking

Some small tracks provide poorly trained fire and rescue workers. Some have firetrucks and ambulances standing by; some don't. Drivers and fans rush to accident scenes, occasionally hampering rescue efforts.

Delmar "Junior" Riggins' gas tank exploded in a 1999 wreck at Oklahoma's Enid Motor Speedway - where there was no firetruck on site. Extinguishers were used to fight the fire, but Riggins, 44, died from his burns.

Driver Doug Wolfgang - trapped in his burning car for eight minutes in a 1992 wreck - won a \$1.2 million verdict against Lakeside Speedway in Kansas City, Kan., and the World of Outlaws sanctioning body. Wolfgang's case focused on inadequate rescue measures.

"We proved beyond a shadow of a doubt it was gross, wanton negligence," said Wolfgang, who endured 15 reconstructive surgeries. "But the truth is now

that 9½ years have passed, nothing has changed....It's a forgotten issue again."

3 deaths in past month

The Oct. 4 death of driver Blaise Alexander Jr. was the most recent highly publicized crash. Despite seven months of clamor about requiring head restraints, he didn't wear one. He died at Lowe's Motor Speedway from a head injury similar to Earnhardt's.

Since then, at least two more drivers have died.

On Oct. 19, Billy Anderson died in Minnesota of complications from a 1998 wreck at Iowa's Knoxville Speedway. It was that track's third fatality in six years.

Anderson broke his neck when he ran over the wheel of another car and flipped. For three years, he was in a wheelchair, unable to talk. His wife nursed him through recurring infections. "This was a freak accident but it can happen to anybody and that's what people need to realize," said Jenny Anderson.

On Oct. 21, two days after Anderson died, Jimmy Jones was killed at Indianapolis Raceway Park when his car went into a spin and was hit by another car. Drivers had no radio warning of Jones' trouble. Race organizers had banned radios, a safety tool, to help drivers save money.

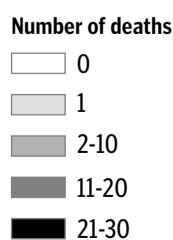
Five days later, a track pace car led the procession from the funeral home to the grave for the 26-year-old father of two young children.

"I don't want this to keep happening," said his mother, Sue, a day after the funeral. "Something has to be done. We've got to stop burying these boys."

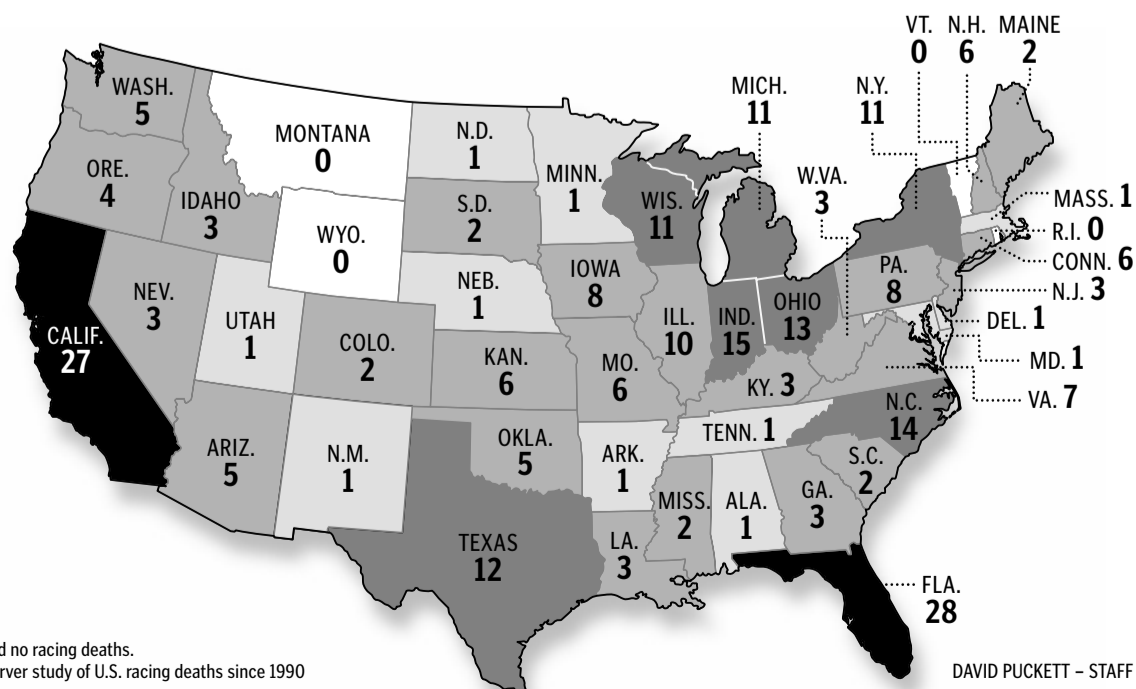
— AMES ALEXANDER, PETER ST. ONGE, ANDREW SHAIN AND DIANE SUCHETKA CONTRIBUTED TO THIS ARTICLE.

Racing Deaths by State

From 1990 to October 2001.



Note: Alaska and Hawaii had no racing deaths. Source: The Charlotte Observer study of U.S. racing deaths since 1990



DAVID PUCKETT - STAFF

Racing Glossary

BANKING: The sloping of the racetrack surface, measured in degrees from horizontal.

CAUTION: A period of a race when the field is required to slow behind the pace car, and passing is not allowed. Cautions come about when there is trouble on the track (an accident, an oil leak, rain, etc.).

CHASSIS: The frame and suspension of a car.

FLAGMAN: The track official who waves flags to start and finish races and alerts drivers to cautions and on-track penalties. Flagmen are stationed at the start-finish line and sometimes in the corners and at pit entrances and exits.

FUEL CELL: A type of fuel tank that has an inner rubber - or similar - lining to hold the fuel if the outer tank is punctured.

GARAGE: The area where mechanics and drivers prepare and work on their cars. Garages are usually located in the infield.

HANS: Acronym for Head and Neck Safety device. The brace fits around the shoulders and attaches to a driver's helmet, limiting the neck's movement during a crash to help minimize whiplash.

HARNES (five- and six-point): Safety belt designed to limit the range of motion of drivers during a collision.

INFIELD: The area inside an oval track.

KART: Smaller racing car with wheels and chassis covered by a lightweight plastic shell. Karts are capable of reaching 150 mph.

OPEN WHEEL: Fenderless cars that race with their wheels exposed. Includes CART, IRL and Formula One and sprint cars.

PITS: The area where cars are serviced during a race. At smaller tracks, the pits also are where cars are parked before and after races. Pits can be inside or outside the track oval.

ROLL CAGE: The steel cage designed to protect drivers from impacts or rollovers.

STOCK CAR: Racing vehicles with the bodies of mass-produced passenger cars and trucks.

STRAIGHTAWAY: The portion of a track that isn't a turn.



ASSOCIATED PRESS PHOTO

Fans recoil from a fiery February 2000 wreck that sent NASCAR truck driver Geoffrey Bodine spinning into the grandstand fences at Daytona International Speedway. Nine spectators were injured in the wreck, which tore down 50 feet of fence and sent debris into the stands. Since 1990, 29 fans have died at U.S. racing events, including 16 fans in grandstands.

DEATH AT THE TRACK

Out-of-control cars, flying debris end lives in an instant

Race fans also die

BY PETER ST. ONGE
Staff Writer

The wheel came off in Turn 2, snapped from its axle in a two-car collision. It bounded free down the small-track straightaway and into the pits, slamming off a car's hood and leaping, faster than fright, into the Salem (Ind.) Speedway infield.

There, Dawn Mayden and her daughter had left their lawn chairs for some barbecued chicken at a concession stand. The tire struck Lindsey Mayden, 7 years old. Lindsey who wanted to be a veterinarian and a midget car racer. Lindsey who liked her daddy to play Pretty, Pretty Princess with her at night, and who, on this day in 1996, kissed him and waited while he worked as a spotter for his brother in the afternoon's last race.

"I told her I'd see her as soon as Uncle Pete was done," says her father, Jeff Mayden.

"Three minutes later, she was gone."

She is one of 29 spectators since 1990 to be killed by cars or their flying parts at U.S. auto racing events. At least 70 have been injured, some suffering life-altering afflictions, including a Florida father of three now living in a New Jersey home for people with brain damage.

Most prominently, three spectators were killed and six injured in a flying wheel and debris in June 1998 when driver Adrian Hernandez hit the Turn 4 wall during a Championship Auto Racing Teams race at Michigan Speedway. In May 1999, three died and eight were injured in Concord when a wheel and parts from a three-car wreck flew into the grandstand during an Indy Racing League event at Lowe's Motor Speedway.

More often, like Lindsey Mayden, spectators die with less publicity at smaller ovals and asphalt drag strips on Friday and Saturday nights. Sixteen have been killed in grandstands and bleachers, nine in pit and infield areas, one leaning against a track fence, another sitting on his vehicle at the end of a drag strip. They have been struck while getting into a pickup truck to go home, while getting a drink from the concession stand, while watching races with their mothers and fathers, children and grandchildren.

With the deaths have come questions — about track fencing, about unsupervised cars, about supervision in restricted areas. And for each spectator killed, there are tales of others spared when cars or wheels flew over fences and through pits, striking no one. In a 1998 incident, an out-of-control race car climbed over a fence at a Phoenix speedway and came to rest just 15 feet from fan seating. "It could have been a nightmare," the track's owner said then.

The response to fan danger? Some

tracks, after tragedies, raise fence heights or beef up security and car inspections. Other officials do little, slugging instead at the danger of mixing fans who crave nearness and cars that, by design, fragment upon impact.

Still others, inured by lap after lap of fan-friendly racing — and unaware that almost one fan a month in racing season is killed or seriously injured on U.S. tracks — think of spectator incidents as mere freak occurrences.

Such is what Jeff Mayden believed before his daughter was killed.

For as long as he remembers, his view of Saturday nights was framed by the edges of a driver's helmet. He learned to race on go-karts at age 9, graduated to stock cars as an adult. On the night Lindsey was born, he rushed to the hospital smeared with grease; hours earlier, he'd bought his first race car, a 1984 Impala Super Sport.

Lindsey took to cars with the same fervor. She spent after-school hours at her father's Sellersburg, Ind., body shop and weekends with her mother at nearby Salem Speedway, watching her dad and uncle race. "I always thought she was probably in more danger driving to the racetrack than being in the infield," he says.

Now, he says softly, he doesn't know. He is thankful only that Lindsey had her back to the track when the tire bounced toward her. She never saw danger coming. Most race fans don't.

No protection for fans

For her 36th birthday, Vickie Lynn Foster got a treat — a trip to Sumerduck Dragway 40 miles from her rural Chancellorsville, Va., home. The idea was husband Rickie's; he and Vickie watched all kinds of racing on television. This, however, would be Vickie's



PATRICK SCHNEIDER - STAFF PHOTO

Emergency workers shield the bodies of spectators killed when a three-car wreck sent a wheel and debris into the stands in May 1999 during an Indy Racing League race at Lowe's Motor Speedway. Three fans were killed and eight injured. In response, speedway officials raised grandstand fences from 15 to 21 feet and have stopped hosting IRL races at the track.

first trip to a track.

Rickie Foster had been to others, and on this night in 1996, he began to feel uneasy as he dipped down a country road to Sumerduck. The track seemed in poor condition. The grandstands looked shabby to him; the fence in front of them seemed too short to be protective.

Yet weren't there races here every weekend? Rickie Foster had never heard of any fan deaths; in fact, there had been none in Sumerduck's 30 years. So, Foster remembers now, he ignored the tug of intuition, and his family sat in the bleachers about halfway down the one-eighth-mile strip.

Soon after, Danny George's 1970 Dodge Dart revved at the starting line for a qualifying run. When the Dodge leapt forward, a small, metal antifreeze pump came loose from the engine. Coolant spewed; instantly, the track was slick.

"The car turned sideways on the track," Foster says. "It came up into the bleachers. It took a total of about four seconds."

Vickie Foster sat in the grandstands,

handing food and drinks to her husband and 5-year-old son, Matthew. She looked up to see the Dodge tumbling in the air her way, then jumped up, shoved her husband aside, and pushed Matthew down into the bleachers. The car, roof first, slammed into her. She died instantly.

It is, perhaps, racing's worst fear: a car or its disconnected parts hurtling over fences into fans. "We don't want anybody killed, but we sure don't want our customers killed," says Lanny Edwards, owner of Devil's Bowl Speedway in Mesquite, Texas, one of thousands of small tracks dotting the country.

The worst such incident occurred in 1955 at the 24 Hours of Le Mans in France, where Pierre LeVegh's Mercedes flew over a 3-foot grass bank and small white fence into a crowd of spectators near the pit straightaway, killing more than 80. Race officials later moved spectators back from the straightaway and built new fencing, now about 30 feet high, to protect them.

Other tracks have taken a similarly reactive approach to tragedy. Michigan Speedway raised its fences from 14 1/2 to

17 feet after its 1998 CART crash. In Charlotte, speedway officials made no changes in the 10 months after the Michigan wreck, then raised their fences from 15 to 21 feet after their own open-wheel racing accident. Both tracks also increased their fences' overhang.

At smaller tracks, insurance companies are the primary arbiters of fence height and design. Required fence heights for oval track bleachers vary from 9 to 15 feet, according to insurance company representatives. Pit fencing, however, is rarely mandated. The reality: "Fences can always be higher," says Tracy Clay, manager of 1-30 Speedway in North Little Rock, Ark.

Track inspections vary, as well. Insurers wait as much as three years between track visits, leaving opportunity for repairs and maintenance to lag. At Clay's 1-30 Speedway, track officials weren't aware of a hole in a wire fence near the pit area outside the track's oval. In July 1995, Michael "Buzz" Baker, a visiting construction worker from Sabetha, Kan., paid to watch a Saturday night of

SEE SPECTATORS | NEXT PAGE

Spectators from previous page

then you're opening yourself up to lawsuits," says Dave Rhead, president of operations at Red Cedar Speedway in Menomonee Falls.

Fans want to get too close

A small-track Saturday night mid-September at the Lancaster (S.C.) Speedway, and the season has taken its usual toll. Drivers, nursing accumulated grudges, satisfy them on and off the track. Their cars, after months of mutual animosity, begin to take on the appearance of crumpled paper.

The result is something of a chaotic free-for-all in the pits, fans rushing in noisy screams to watch. "I have 200 fires to put out," track president Doug McManus says. "And it gets worse at the end of the night."

Security, it seems, can get lost in the swirl. Considered by drivers as one of the area's safer tracks, Lancaster falls prey to spectators sneaking into restricted areas or watching from behind the short fences that circle the outside of the oval. Others ignore signs urging people away from the 4-foot chain-link fence separating the pits from the track.

One father lifts his infant daughter above the fence so he can better see the cars roaring past less than 20 feet away. Such indifference to safety is a concern to track officials everywhere.

"Fans are their own worst enemy," says Dickie Goss, owner of old Dominion Speedway in Manassas, Va. "There's a certain thrill with being right on top of the cars."

The challenge for speedway owners: How do you balance the counterweights of safety and intimacy? One compromise is to offer pit access to fans who sign a liability waiver, which isn't always done. "It's an acknowledgment that the best viewing is also the most dangerous."

Yet pit access leaves tracks hard-pressed to protect their own fans. Another Saturday night: Late August 1991 at the Can-Am Speedway, a four-tenths-mile clay oval in upstate New York. Bethany Wells, a 17-year-old from Kennebunk, Me., leads in her father's car in a race on a dry day.

On the track, an accident sent a wheel flying through the pits. "Heads up," someone yelled. When Bethany Wells crashed, she was hit in the face by the forehead by the wheel assembly. She died five days later.

Track owners initially argued that Wells was not in a restricted area, but insurers later settled with Bethany Wells' mother, Lois, for \$100,000. New general manager John Burr acknowledges Wells was in a restricted area. "She was in the pit area," he says.

Another Saturday night: Late August 1997 at the Cowtown Speedway in Kennedale, Texas, a Fort Worth suburb. In the final race of the night, Melanie Mitchell, a 16-year-old from Kennedale, watched with her boyfriend in a restricted area near the back straightaway.

Just after midnight, a car leading the race lost its right front wheel, which sailed into a fence near the turns. "The fence hit Mitchell in the head, killing her."

"They were told to move," says Cowtown Speedway team manager Danny Bogart, who says new owners have installed fencing that restricts access to the area where Mitchell and Lewis were standing.

Cam Speedway also has installed fencing near the pit area where Bethany Wells was killed.

"It's too late," says Danielle Wells, twin sister of Bethany. "She was in a prohibited area. They say that area that area all the time, but there should have been better security."

Marriage ends; questions haunt
Jeff Mayden hasn't been to Salem Speedway in the five years since his daughter's death. He'd heard the track was going to build a fence playground six feet high around the track, but those plans went unrealized. Salem has, however, put up a new fence separating the infield from the pits.

It is too late, he thinks. "Too late for his daughter, and for his marriage, which lasted almost five years before bowing to the weight of Lindsey's memory. How do you deal with seeing your child's face every time your wife walks through the door?"

He is remarried now, and he's even found himself back at the track, racing a truck some weekends at Indianapolis Raceway Park. Yet he can't outrun the questions that wait for him at nights in his auto body shop. Why did Lindsey want to sit in the infield that night instead of Turn 12, where the driver and her mother always sat? Why, after not eating solids for two weeks because she choked on a grape at school, did Lindsey suddenly want chicken nuggets?

"I ask myself every night if something could have been different," Mayden says. Fencing, maybe, or car safety. Although Salem says technicians inspect every driver, the former driver says cars drive often with deficient parts - especially in the lower classes. Was that what went wrong?

"I was really shocked by those left with the legs of fat fatalities. How do they reconcile racism's freakish possibilities with the notion that death, perhaps, doesn't have to be so inevitable?"

"It could be someone else's daughter next time," Jeff Mayden says, but the anger is only a flash, the sentiment dissipates with a sigh, and the body shop is still too quiet without his best friend, Lindsey.



Haley McGee still fights to recover from brain injuries suffered when she was hit by debris during a May 1999 BR crash at Lowe's Motor Speedway. Haley, who once earned A's and B's in school, now struggles to keep up with her class.

SURVIVOR: HALEY MCGEE

Family adapts, but life has changed

12-year-old battles back, after suffering injuries from debris soaring into stands

BY PETER ST. ONGE
Staff Writer

CONOVER — The list is one page long, dated June 1999, compiled by a physical therapist in Charlotte. On it are games children play and activities they love - 30 in all. Haley McGee is warned from each.

Gymnastics is out, as are friendly games of football, basketball, cheerleading - perhaps another day for a girl with brain damage.

It is a reminder ever now of the journey 12-year-old Haley has faced since debris from an Indy Racing League car struck her at Lowe's Motor Speedway near Charlotte in May 1999. Three spectators were killed and seven others injured.

Haley, knocked unconscious for two days, remembers nothing about the accident. Sprightly and smart, she can

make others forget she was injured. She appears no different than other girls her age - a Winnie the Pooh fan, nervous about middle school, learning to play "Go Tell Aunt Rhody" on her clarinet.

But the accident shows itself often in Haley - and in her family.

Haley suffers hand tremors and frequent headaches. Her mind works a couple of beats slow at times, says her father, Neal. "Haley's smart," he says. "She thinks of things, but it's two minutes after. Her thoughts go behind her actions."

She once earned A's and B's but now struggles to keep up with classmates, and she must sit at the front of the class so she can focus better.

At home, Haley's parents are protective about her activities - any new bump on the head could cause severe damage - but they don't want Haley to live in a shell.

The compromise: Haley can play softball, but she must wear a helmet at all times. She can't take gymnastics, but she is trying out dance classes.

Lowe's Motor Speedway president Whyte Wheeler says the speedway

has made a reasonable settlement of for the McGees. The family is pursuing a lawsuit.

Yet Haley and her family feel fortunate. In the weeks after the accident, Haley was like an infant, unable to care for herself. The McGees were told the child might never function normally.

"I was sitting right beside Haley when it happened," Susan McGee says. "I thought for a long time, 'Why didn't I push her down?'"

"I've always been protective, but I've become a little more so. My older children tell me, 'Mom, you've got to let us live.'"

She tries. Trips to the racetrack are cut, but last year, the McGees went to a rodeo with friends. Susan seemed to enjoy the evening, but when bull-riding began, she left the bleachers. Her husband found her near the exit.

"She said, 'If those bulls come over that fence, I'm out of here,'" Neal McGee remembers.

He told her that wasn't going to happen.

"That tire wasn't going to, either," Susan McGee said.

SURVIVOR: LAKE WILSON

Brain injury takes dad from his family

After 11 1/2 months in coma, he's in a facility far away

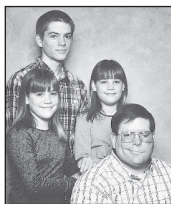
BY PETER ST. ONGE
Staff Writer

Lake Wilson wishes his son and twin girls could come to New Jersey more often to visit. He knows his family's life was together, but for awhile, he couldn't recall the racing accident that changed everything. It was he thought, a boating mishap.

Wilson lives now near his boyhood home in a facility for people with brain injuries. He may spend the rest of his life there.

That life changed on April 4, 1990, when Wilson sat in the pit bleachers at Citrus County, Fla., Speedway while his wife took their children to a circus. At the track, a stock car veered out of control and flipped. Its hood flew into the bleachers, hitting Wilson in the cheekbone.

Wilson, then a 28-year-old boat mechanic, spent 11 1/2 months in a coma, then awoke to find himself a quadri-



COURTESY OF KATHERINE WILSON

Lake Wilson, here with his son and twin girls last Christmas, lives in a New Jersey home for people with brain damage. His wife and children still live in Florida.

plegic, says his wife, Michelle. He has shown great improvement; he now can use the right side of his body. Last year, he qualified for his General Educational Development (GED) certificate. He visits his mother on weekends.

"He loves to go to races," says Kathy Wilson.

Michelle Wilson, who lives with her children in Inverness, Fla., sued Citrus County Speedway after the 1990 accident, but withdrew the lawsuit in part because her husband had signed a waiver to sit in the pit area. Later, she sued Mr. Gasket, manufacturer of the hood pins on the car that crashed. The case was settled before trial; members of the Wilson family will receive structured cash payments of up to \$5 million for the rest of their lives.

"I'm spokesman for Ohio-based Mr. Gasket says the company has been sold twice since the accident; he didn't know details of the settlement.

Says Michelle Wilson: "It makes me able to take care of them."

The twins, 12-year-old Tracee and Randee, were 11 months old at the time of the accident and only know their father this way, their mother says. Ryan, just shy of 7 then, is having troubles at high school and difficulty seeing his father so different, she says.

"He and his dad had been inseparable," Michelle Wilson says. "The remember how he used to be."

SURVIVOR: KALEB CHESTER

10-year-old has close call at fence, but lives

Now his family's back at Saturday night races

BY PETER ST. ONGE
Staff Writer

Kaleb Chester has been racing small sprint cars for five years. He figures the cars will get bigger as he does, until he's driving in NASCAR races like his favorite driver, Tony Stewart. Already, the 10-year-old has asked his mom to be in charge of publicity.

Diane Chester readily agreed. She's an avid racing fan; her husband and Kaleb's father, Terry, races in the modified track and stock a wall in Turn 4, near their South Roxana, Ill., home.

Neither parent worried terribly about Kaleb driving. But they never considered the danger of watching.

On Sept. 4, 1999, Diane and Terry Chester watched Saturday night races from the 'Tt-City' bleachers with 2-year-old son Seth.

Kaleb played with his buddies near the turn straightaway and Turn 4. "I've sat down there a million times," said Terry Chester. "It's a place you never

thought a race car could get to."

On this night, one did - a late-model car that went out of control on the half-mile track and struck a wall in Turn 4. Kaleb at the time had his back to a

nearby Turn 4 fence.

"My parents saw only the wreck. 'I'm going to take Seth and see the crashed cars,'" Diane told her husband. Terry followed later. "On the way down, I heard people say a little kid got hurt," he said. It was his son, on the ground, thrown 20 feet by the impact of the car.

Kaleb suffered a fractured pelvis, fractured skull and a concussion on his brain. He was unconscious for four to five days, on crutches for two months.

Now, his father says, the family has gone back to Saturday night races at Tt-City. Kaleb is back in a quarter-mile car, racing in nearby Greenville, Ill.

"The first time he got in that car after the accident, I was a little nervous," Diane Chester says. "But after that, I was fine."

JOHN LEGGAT
50, driver
Aug. 15, 1997
Lagat, from Card...

DEAN HUBBS
60, driver
Nov. 23, 1997
Hubbs, from Chateaugay, N.Y., suffered fatal injuries...

MIKE FELL
32, driver
May 25, 1997
Fell, from Sun Prairie, Wis., died after his car slammed into a tree...

HERB BURKE
50, driver
June 7, 1997
As Burke passed his wife, Veronica, in his slot when he hit a tree...

MELANIE RACHELLE MITCHELL
30, spectator
Aug. 2, 1997
Melanie, from Kennewick, Wash., had a heart attack...

RICK BALDWIN
41, driver
Aug. 12, 1997
Baldwin, from Corpus Christi, Texas, spent 12 years in a coma before he died...

RICK OWEN
32, driver
Sept. 2, 1997
Owen, from Mansfield, Ohio, died of multiple injuries...

MARY WOLLESEN
51, driver
Sept. 2, 1997
Wollesen, a legal administrator from Wisconsin's Road America track, died in a crash...

DEER ISRAEL
26, driver
Sept. 14, 1997
Israel's 1972 Datsun 500 was hit by another car...

KEVIN FLEMING
35, driver
Sept. 27, 1997
Fleming's car spun while trying to avoid an accident and was hit by another driver...

PEGGY PROBLOWSKI
37, driver
Sept. 27, 1997
Probrowski was working near the pits of the Waterford Hills (Mich.) Road Race Course...

CARL DALO
51, driver
Sept. 28, 1997
Dalo, a Henrietta, N.Y., food-service representative, died after his stock car hit a wall on the last lap...

STEVE HALL
31, driver
Oct. 4, 1997
Hall, from West Alexandria, Ohio, crashed his dragster on a creek bank...

BRIAN WILSON
40, driver
Oct. 24, 1997
Wilson was testing a Formula Mazda he was developing on an oval track...

CHARLES ELLIS
54, driver
Aug. 17, 1997
Ellis, from Crosby, Texas, was avoiding another car when another hit his on the driver's side...

COLIN RICHARD JONES
50, driver
May 9, 1998
Jones, from Colhoun, from Milbrink, N.Y., was killed when his car slid on the track...

TOMMY MONK
51, driver
May 16, 1998
Monk, a New York insurance banker and father of three, died when his Indy car hit a wall during a race...

MARIO CARBACCIA
45, driver
May 29, 1998
Carbaccia, a mechanic from the Dominican Republic, died when his car slammed into a concrete wall...

JOSEPH SMITH SR.
60, driver
May 29, 1998
Smith, from Manhattan, Kan., was killed when his dragster failed to clear a jump...

DAN HERMAN
48, driver
June 5, 1998
Herman, of Blomack, N.D., heading and cooling business owner, was following the family tradition...

CHAD COLEMAN
30, track staff
Aug. 28, 1998
Coleman, from Greenwood, S.C., was driving a Winston Cup driver and made a promotional video...

CHRIS BRADLEY
40, crew chief
April 1, 1998
Bradley, from Spring Lake, Mich., was the crew chief for Adam Petty's minor league circuit stock car team...

OBITUARIES

The racing community grieves: Thousands of mourners stood in the streets of Montevideo, Uruguay, to honor Gonzalo Rodriguez, a CART rookie who died at a California speedway in September 1999...

1997-2000

AUG. 30, 1997
Jolley, a Forest City, N.C., veterinarian, began racing after heart problems...

CRAB MCCALLUM
49, driver
July 21, 1998
MCCallum, from Rutherfordton, N.C., was traveling 130 mph...

THOMAS LEE PARKER
43, spectator
July 18 and Aug. 23, 1998
Parker's family considered a suit but dropped the idea...

JOHN DAVIS
48, driver
April 7, 1998
Davis, from Fort Myers, Fla., died instantly after his car spun off Turn 1...

PAUL JONES
31, driver
June 2, 1998
Jones, a motorsport veteran, died of a stroke after a crash during a race...

JACK ROBERTS
53, track staff
July 18, 1998
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Morley, a Vietnam veteran owner of a car-detailing business and had worked as a race director and flagman...

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GREGORY MEADS
37, track staff
Aug. 7, 1999
A truck driver and father of three from Scottsbluff, Meads worked as a pit steward at Spoon River (Ill.) Speedway...

RON LITTLE
42, driver
May 19, 1999
Little, from Adel, Iowa, crawled out of his car after finishing third in a race at Start Speedway in Iowa...

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DEATH AT THE TRACK

There's little agreement on standards, and who should set them

Who's in charge of safety?

By LIZ CHANDLER
Staff Writer

When 36 people died from injuries playing football in 1968, the multiple groups running the sport decided that was intolerable.

They came together to study injuries and deaths, improved the helmets and changed the rules.

In 1990, no one died from football injuries. On average, four a year die now.

Today, auto racing faces a death count that most opinion-makers agree is intolerable. But disagreement clouds what to do next.

At least 33 people have been killed in racing this year. Its rate of death is more than five times that of football.

Pressure to improve racing's safety record has never been greater, intensified mostly by NASCAR superstar Dale Earnhardt's death in February. Outside safety advocates - doctors, engineers and lawyers - are pushing for improvement, as are racing insiders.

"There have been too many tragedies during races that may have been prevented by utilizing new safety initiatives...to better protect drivers, the audience and the crew," said a January letter to NASCAR from the American Society of Safety Engineers, a workplace safety group that offers its expertise.

Racing has resisted efforts to centrally collect and share information on injuries and deaths. A fear of lawsuits and the price attached to liability underlies the resistance.

"We're into safety a little bit, but with our lawsuit-crazy society, we can't but only recommend things. We can't make them mandatory or we might get sued if something happens," says Bert Enick, a sprint-car race organizer, whose group relies on insurers and tracks to keep races safe.

Some influential racing leaders say their overall approach to safety works. Within their own organizations, they pay attention to deaths and, sometimes, near misses. For most groups, including NASCAR, the safety network amounts to word-of-mouth among teams, engineers and manufacturers.

The 200 groups that organize racing events, generally don't collect or share safety information. Most groups know who died within their ranks, but they don't collect details of how they died. Police collect more information in traffic accidents than most racing groups.

In the 1980s, the International Council for Motorsports Sciences - a group of doctors and engineers affiliated with racing - voted to collect accident information from leading racing organizers.

Most groups declined to participate. Some said they lacked the staff. Others worried about lawsuits - including NASCAR chairman Bill France Jr., who called a bank of information "a fishpond for plaintiff attorneys," the Orlando Sentinel reported.

The effort failed because insurance companies feared industrywide accident data in court, said Dr. Steve Oviatt, director of medical affairs for CART.

"They were afraid it would lead to setting standards, and that if you couldn't live up to standards - that might be a liability issue," said Oviatt.

The fragmented racing world and its fears of being sued have so far stifled collaboration and unity.

Some organizations inside and outside racing want national standards for tracks and a central clearinghouse for injury statistics and research.

Others say that's not necessary.

NASCAR, among the largest groups, gives top priority to track safety after crashes. President Mike Helton said. He said the informal information network is "adequate and appropriate."

After Earnhardt's homicide, Helton acknowledged that NASCAR had "taken the (safety) deal to a new level." So it ordered drivers to use head restraints and decided to install crash data recorders in its national racing series cars, as CART had done.

NASCAR also plans to open a research center in Concord, 40 miles northwest of Charlotte. Engineers will focus partly on safety, partly on competitive strategies.

Race organizers, such as Helton, say their primary job is to put on races. It's up to drivers and tracks to ensure safety.

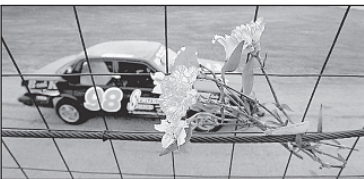
NASCAR distances itself from responsibility in its rulebook. "NASCAR cannot be and is not responsible for all or even most aspects of the safety effort...The risk of serious injury or death cannot be eliminated and, in fact, will always be present at a high level."

Helton said drivers know the risks.

TRAGEDY AT A SMALL TRACK IN OHIO



Ginger Jakupca's family went to its first race, at Lorain County Speedway, in July. She never imagined it might be unsafe. In the accident, two of her children's legs were broken - and her youngest son, Tommy, was barely yanked to safety. "I almost lost my children at a sports event," she says. "There's just no excuse for that." From left are her children, Candace, Tommy and Steven; middle rear is the oldest son, B.J.; and in the middle are Ginger and husband Tom.



James Harsh was killed by a car as he watched a 1990 race from the track's pits. His family marked the 11th anniversary of his death with flowers - the same night the track held a memorial for Virginia Whyel, killed there a week earlier.

Kathy Williams, one of 13 injured at Lorain, was hospitalized with a broken leg and gashes after one of the race cars pinned her in the stands. "I thought I was going to die," says the 55-year-old motel housekeeper.



"We all choose different things to do that have an element of risk in them, whether you drive to work, go on a vacation, ride on a plane or work in a building."

Racetracks lack a standard blueprint on safety measures at tracks. NASCAR encourages tracks to have "adequate" and "reasonable" fences and barriers, but isn't specific. Track owners rely on common sense and insurers.

Insurance companies, however, say they're not safety experts either. They set minimum requirements for such things as fence heights, barriers and age of participants. Periodically, they also inspect tracks. But even insurance standards vary widely.

"We have minimum standards, but we don't profess to be safety experts," says David Hatlem of K&K Insurance Group in Fort Wayne, Ind., one of the nation's largest racetrack insurers. "We won't issue a policy if a track doesn't meet our minimums, but that doesn't mean they're not going to get someone else to insure them."

Hatlem says K&K closely follows loss claims at its tracks and suggests improvements. Racing, he says, presents "a potent mix" of risks with high speeds, flying parts and fans close to the action.

Other insurance companies aren't comfortable making suggestions. They simply write policies based on the risks.

"We're salesmen. We're just putting together an insurance program in the racing industry," says George England, who says his North American Racing Insurance Co., based in Independence,

Mo., insures 60 percent of small tracks.

"We do our best to make sure that we insure a good risk, a profitable risk, that won't result in claims... (But) agencies are reluctant to get into safety standards, because that makes us liable."

Insurers push the use of liability waivers to guard against lawsuits from drivers and those working in or watching from garages and pits.

Courts typically uphold those liability releases, which state that participants waive their rights even if tracks are negligent. That shield also reduces incentives to improve safety.

Fans in the stands, however, don't sign waivers. Claims are high when fans get hurt, so agents say they focus on fences and other fan protections.

The larger tracks, generally, carry between \$10 million and \$100 million in insurance to protect them in fan accidents. Small NASCAR tracks carry a minimum of \$2 million. But some small tracks carry far less coverage - or none, said Allan Brown, publisher of the National Speedway Directory.

"The frequency is not that dramatic, but the severity is," K&K Insurance Group's Hatlem says of fan injuries.

"When you get one, they are very, very large claims."

Still, with no universal standards, fence heights to 22 feet from about 9 feet at small tracks to 22 feet from some - but not all - large tracks. Some variance is appropriate, agents say, depending on a track's design and the type of cars racing. Track owners rely on what seems to have worked or what the insurance com-

Grandmother killed, 13 injured on July night

By LIZ CHANDLER
Staff Writer

CLEVELAND - From her wheelchair just 30 feet from the track, Virginia Whyel watched the races at Ohio's Lorain County Speedway. Near midnight on July 21, two cars sailed over a guardrail, through a fence and into spectators.

"I saw a big cloud in the area where my family was sitting," says Scott Whyel, who had raced earlier that night. "I ran toward them and I started looking for my mother. I couldn't find her. Then I saw her lying on the ground."

Whyel, 64, was killed and 13 others injured.

"The grandrail acted as a ramp," says detective Shawn Hada-way. "Whether things were up to specifications, that's between NASCAR, the track, and the insurance company." NASCAR sanctions 90 such short tracks, charging a \$1,200 fee per race and allowing tracks to use the NASCAR name.

The week after the crash, workers raised and strengthened the guardrail and fence, only at Turn 4 where the cars crashed.

Racing resumed the next Saturday, the day the family memorialized Virginia Whyel. Track fans raised \$2,400 for her family.



Virginia Whyel, 64, used a wheelchair after hip surgery. She was months from retirement when she was killed.

It begins with cooperation, Mueller said.

"If nobody is collecting information you don't know what's causing these catastrophic injuries, and whether there's anything you can do to prevent them," said Mueller.

Based at UNC Chapel Hill, the center played a key role in collecting data about injuries and deaths in football. It also keeps statistics on most college and high school sports.

Mueller says the center would act as a repository for racing death and injury information - "if the sport wants the help."

"When you're driving over 100 miles per hour, there are probably always going to be some catastrophic injuries and deaths," he says. "But there are probably ways to make things safer."

Other safety advocates are pushing for changes too.

The National Fire Protection Association wants rescue standards at tracks.

The American College of Sports Medicine is studying the sport and expects a report before the 2002 racing season.

Racing insiders worry if the industry fails to address safety, the government will intervene.

"The day a car goes into the stands and kills a bunch of people is the day that Congress will look at this sport and pass legislation," says Jon Potter of the International Council for Motorsports Sciences. "Until then, you'll keep seeing these things that happen around the country - unless the industry comes together to tackle these problems we all know exist."

DEATH AT THE TRACK

'It's a tough course,' says track president Wheeler

By LIZ CHANDLER
Staff Writer

Since 1990, more people have died at Lowe's Motor Speedway than at any other U.S. track.

Seven people were killed in races at the Charlotte-area speedway, including three spectators in the grandstands, and three drivers killed in an experimental diversion for racers trying to gain experience on large tracks.

Another death came in October, when up-and-coming driver Blaise Alexander Jr. hit the wall.

"It's a tough course," said track President H.A. "Humpty" Wheeler. "I think we're reacted strongly to try to make it safer...but at the same time you're all ways on the edge in racing."

The track's size, D-shape and high banks require more maneuvering by drivers than most tracks, Wheeler said.

In the mid-1960s, three drivers - including renowned racer Fireball Roberts - were killed. Three more people died in the 1970s. Nobody died in the 1980s.

The speedway vastly increased the number of events during the 1990s. Some of them proved riskier than its traditional stock-car event.

Wheeler created the Sportsman race in 1989 to give short-track racers experience on large, fast speedways.

"We don't want to lose sight of a potential young Dale Earnhardt, a hungry, no-money driver who wants to win, win, win," Wheeler said at the time.

Sanctioned by NASCAR, the race drew a range of talent and excitement. The only requirement was a driver's license and some short-track experience. The results were chaotic - and deadly.

In 1990, David Gaines, 27, died during practice after his spinning car came to a stop, and was broadsided by another driver with little large-track experience.

"There was no such inexperience," said Gaines' father, Jerry, a race-car owner who financed his son's hobby. "Anybody could have raced. You didn't need any credentials."

Wheeler called it a racing accident.



Driver Russell Phillips wanted to move up in racing. He was unfazed by the spectacular crashes in NASCAR's Sportsman division, designed for drivers trying to gain experience on large speedways. "He wanted to make it big, run with Earnhardt," his brother, John, said. "He wanted to be famous." Phillips was the third fatality in seven years of the Sportsman division.

"God knows I've seen enough of them. It's the dark side of what we do."

In 1991, one driver broke his neck and another was badly burned. Phil Ross of Greer, S.C., still has his charred fire suit and scars. He quit racing that day.

"I wanted to be here to raise my kids and be with my wife," said Ross.

Gary Batson bought Ross' car. He was a short-track racer who ran a restaurant in Travelers Rest, S.C. He wanted to move up in motorsports, so in 1992, he entered a Sportsman race.

Batson's car collided with another, flipped onto its side and burst into flames. He wasn't injured in the impact,

and even flaked a thumb-up. The fire, however, consumed him.

At the hospital, Batson looked at his close friend, Roy, and began to cry. "He knew. You could tell he knew where things were headed," said Roy Barrett. Gary Batson, 40, died the next day.

The Sportsman race became known for spectacular wrecks: A 12-car pileup in 1992. A nine-car crash in 1993. A fiery crash and an eight-car wreck in 1994.

Russell Phillips, of Mint Hill, dodged most of the mayhem. He raced in 16 Sportsman events and had one crash that damaged his car severely enough that he missed a race.

In 1995, he became the Sportsman's third fatality in seven years.

As Phillips rounded a turn, his brother radioed that he should steer to the outside to avoid a wreck. Phillips responded but another car veered into him, flipping his car onto its side and sending it scraping along the catch fence, shearing off the top. Phillips, 26, was killed instantly. Workers cleaned the track, and the race resumed.

"The stage was set for disaster from Day 1," said Phillips' brother, John, who urged Russell to stick with short tracks. Wheeler said he decided that day to stop the series. John Phillips said

COURTESY OF JOHN PHILLIPS

QUICKER ACTION COULD SAVE LIVES

Tracks' fire, medic response often lacking

In 18 cases, including 15 deaths, victims and families say rescue wasn't adequate

By DIANE SUCHETKA
Staff Writer

On Aug. 12, 2000, two laps into a 150-lap stock car race outside Tacoma, Wash., driver Mike Easley slammed on his brakes to avoid a two-car wreck. A third car crashed next to Easley. A fourth slammed into the third and crushed metal and fuel exploded into a three-story ball of fire throwing burning gasoline onto Easley.

The driver burst into flames. "The first person to come to his rescue was a photographer who told reporters that Easley's helmet had melted into his face, that he could see the driver's eyes through the fire, that he could hear him scream: 'Please save my life. Save my life.'"

No firetruck was at the race. And news accounts described drivers pulling out ambulances and trained rescuers at fans throwing water bottles and ice chests onto the track to help.

The accident put Easley in the hospital for more than a month with third-degree burns over 42 percent of his body. But he survived.

His case is one of at least 15 deaths and three serious injuries in which victims or their families claim emergency response was inadequate. The Observer has found.

Those who were injured, as well as their families and safety experts told The Observer of tracks that have staged races with no tools to cut drivers free, no trained rescue workers, no firetrucks, no ambulances.

Track owner Dan Filkon says he had an ambulance, two firetrucks and 37 extinguishers - and every one of them was used - the night Easley burned. The company that insures him required no

firetruck, he says.

"They're nobody governing what racetracks have to have or racetracks don't have to have," Filkon says. "Maybe there should be."

Emergency response administered quickly by well-trained and properly equipped workers is critical to saving lives and reducing injuries.

"There is definitely a golden hour, where it is very important that a person who is severely injured, particularly with an internal injury, get to a trauma center," says Dr. Kathleen Clem, a spokeswoman for the American College of Emergency Physicians. "Some very critical procedures need to be done right away."

The National Fire Protection Association in Quincy, Mass., agrees something should be done to reduce the risk of death and injury in racing. It is one of at least two organizations writing safety and rescue recommendations for tracks.

"The typical track owner is not a safety person," says the association's Carl Peterson. "Not that they're ignoring safety, it's just not high on the list of things they're thinking about."

Most of the tracks that the injured and their families said were lacking in equipment were small. And smaller tracks, experts say, often have less money coming in and less to spend on safety.

"Often there's not even an ambulance on site," says Chief Craig Clark, founder of Track Rescue Fire Department Motorsports Safety Team, a private company that supplies emergency equipment and workers to tracks throughout the Eastern United States.

Insurance companies generally insist on ambulances and trained rescuers at tracks, but not firetrucks, says Jeff Pozmantier, president of Wisconsin Insurance + Risk Management, which insures most race tracks.

"Ultimately the racer needs to decide if he or she is comfortable competing at a track," Pozmantier says, "and spectators to decide if they are comfortable



MIKE EASLEY'S FACE SHOWS SCARS FROM BURNS HE SUFFERED IN A RACE ACCIDENT LAST YEAR AT A SPEEDWAY OUTSIDE TACOMA, WASH. THERE WAS NO FIRETRUCK AT THE RACE.

able attending."

The amount tracks spend on safety varies from free admission for firefighters who agree to help, to \$250 for an ambulance, to hundreds of thousands of dollars for sophisticated mini-hospitals.

About 300 firefighters, paramedics and other emergency workers staffed each of the big races at Lowe's Motor Speedway last month. Among the physicians at the track were four - each with a different medical specialty - who manned the infield-care center, a fully equipped emergency room run by Carolan Medical Center. Also ready to help were 30 ambulances, 15 firetrucks and 500 extinguishers.

The cost of emergency services at Lowe's Motor Speedway exceeds \$1 million annually, track officials say.

Championship Auto Racing Teams Inc., which runs one of the nation's top prominent Indy car leagues, requires all 20 tracks that host its races every year to meet five pages of safety requirements. All tracks, no matter their size, must have a licensed physician who serves as medical director and a heli-

copter if the closest trauma hospital is more than 10 minutes away.

"All of these things have evolved because there were problems in the past," says Dr. Stephen Olvey, CART's director of medical affairs, who helped implement the standards in the 1980s. "You have to keep these tracks honest."

Before CART instituted the regulations, Olvey says, one track had a retired OB/gyn as a medical director. Another had a dentist.

Many complaints from families center on the lack of firetrucks. While every situation is different, a vehicle with at least 100 gallons of water and 150 pounds of chemical fire-fighting material, is generally the best minimum defense against a large fuel fire. But, experts say, the track should be one part of an overall fire protection plan.

There was no firetruck at Endi Motors Speedway in Oklahoma on Aug. 28, 1999, the night Dolmar "Junior" Higgins' car was hit from behind. His fuel tank cracked and burst into flames.

More than three-fourths of Higgins' body was burned. Four days later, he

Wheeler phoned him weeks later and asked whether the Sportsman should continue. Phillips told him: "You don't want to hear what I think. I've lost my brother and my best friend."

Phillips' death ended the Sportsman at all three tracks that staged it.

"The three deaths we had, you can look at that as the most unlucky things in the world," Wheeler said. "I've thought and thought about that Sportsman race. If hindsight were foresight, you certainly wouldn't have done that." Lowe's next death didn't happen in a race, and is excluded from the Observer's study of deaths in racing. In 1997, Charles McInish - a 57-year-old class company owner from Missouri - crashed during a racing school event.

In 1999, Wheeler brought the Indy Racing League to Lowe's. The race featured cars with no fenders, and wheels that jut from the car's body. Faster than stock cars, they top 200 mph and disintegrate on impact to carry the energy away from the driver.

A year earlier, three spectators were killed at a similar event in Michigan, when a fire flew over the 14-foot fence into the stands.

Lowe's examined its 15-foot fence and decided it was high enough to protect fans. It wasn't.

During an accident, a car knocked a loose tire into the stands - killing three people and injuring eight.

Randy Puyette of Connally Springs died at 21. Hickory Jeff Patton was 32. Dexter Mobley, 41, of Statesville, also was killed.

Since then, Speedway Motor Sports - who owns Lowe's - has raised fences to 21 feet at its four large oval tracks.

The most recent death at Lowe's came in October, when Blaise Alexander Jr. crashed during an ARCA (Automobile Racing Club of America) race - a developmental division for drivers.

Alexander, 25, died from a skull fracture much like the one that killed Dale Earnhardt, among the last people to die at Gary Batson as he lay dying from burns. "Everybody remembers Gary and what happened to him. They still talk about it around here. Stuff like that, you can't get over."

ded. Martin Bond, who managed the track then, says he had fire extinguishers and an ambulance.

"It's an accident that happened and it happens every night in the country and it'll keep happening," says Bond. "If you have 10 firetrucks, it'll keep happening." Sprint-car legend Doug Wolfgang was driving in a practice session at Lakeside Speedway in Kansas City, Kan., April 5, 1992, when his car hit a tire at the edge of the track, and he crashed into a concrete wall.

Wolfgang sat in his car, unconscious, as methanol fuel pooled at his feet, then ignited. Two firetrucks not the track's usual five - arrived - struggled to extinguish the blaze.

No firetruck was on the scene. And, according to a lawsuit Wolfgang filed, the fire burned only for bars to extricate him, instead of a more sophisticated tool such as jaws of life.

Fellow drivers freed Wolfgang from his car in less than a minute he burned for more than eight minutes.

In a rare situation for racing, a jury found the conduct of the track and the sanctioning body, World of Outlaws, wanted and reckless. A judge ordered them to pay Wolfgang \$1.2 million.

The verdict, Wolfgang says, shows that what happened to him was wrong. "What it didn't do was force anybody to actually do anything."

There are things that can be done to improve emergency response at tracks, safety experts say. Those include establishing an enforcing national standards, hiring only trained firefighters and medical workers and requiring racers to wear safety gear.

"I am living proof that if you have good safety equipment, you can survive," says Easley, who wore a triple-layer fire suit.

But someone, he says, ought to require tracks to have decent medical and rescue care too.

"Even horse tracks are regulated," Easley says. "They have to have a veterinarian or they can't race."

The ill, the reckless and the young can get behind the wheel

tracks limit drivers

BY AMES ALEXANDER

Don Biellier was in no condition to drive a race car.

The 45-year-old Missouri salesman had already had a massive heart attack. It left him so weak, his brother said, he could barely walk across a room without panting. His doctor warned him not to do anything physical. His brother pleaded with him to stop racing.

But Biellier wasn't about to quit. In July 1994, he headed to Speedway U.S.A. in Bolivar, Mo., for his first race since the heart attack a year earlier. Minutes into the race, his car came to a stop near a wall. A second heart attack had ended his life.

"He shouldn't have been going what he was doing," said Biellier's brother, Don. "He knew that. But that was his love."

Every weekend, at tracks around the nation, racing officials open the gates to potentially dangerous drivers. They sometimes allow competitors to race if they couldn't pass a physical, so young they couldn't get a driver's license, so reckless they're not allowed to drive on public roads.

By doing so, some experts say, they endanger not only their own lives, but also those of track workers, other drivers and spectators.

Damaged hearts are danger in race

Only a handful of states nationwide regulate racing, so it's largely up to track and racing associations to determine who can compete. But tracks rarely turn away drivers.

Racing can be addictive, drivers say. So even keep it at despite poor health. Since 1990, more than 200 drivers — at least eight this year alone — have died of heart attacks during or immediately after races, The Observer found.

Many of them, including Jay Alan Luecke, had prior heart attacks, but raced at tracks that didn't require drivers to submit to physical exams. "A lot of them, including Jay Alan Luecke, had prior heart attacks, but raced at tracks that didn't require drivers to submit to physical exams. Many of them, including Jay Alan Luecke, had prior heart attacks, but raced at tracks that didn't require drivers to submit to physical exams. Many of them, including Jay Alan Luecke, had prior heart attacks, but raced at tracks that didn't require drivers to submit to physical exams."

"I kept saying, 'You're not ready for this kind of stuff,'" said Rick Lika, a fellow driver and close friend of Luecke's. "He just wasn't in physical shape to drive a race."

By measuring the amount of oxygen consumed by drivers, researchers have found racing for two hours on a road course — an asphalt course that typically has multiple left and right turns — requires more energy than a 15-mile run. Eighteen-mile runs. Clearly, experts say, drivers should be in top physical shape — and in elite racing circles, they usually are. But it's not always the case on minor-league tracks.

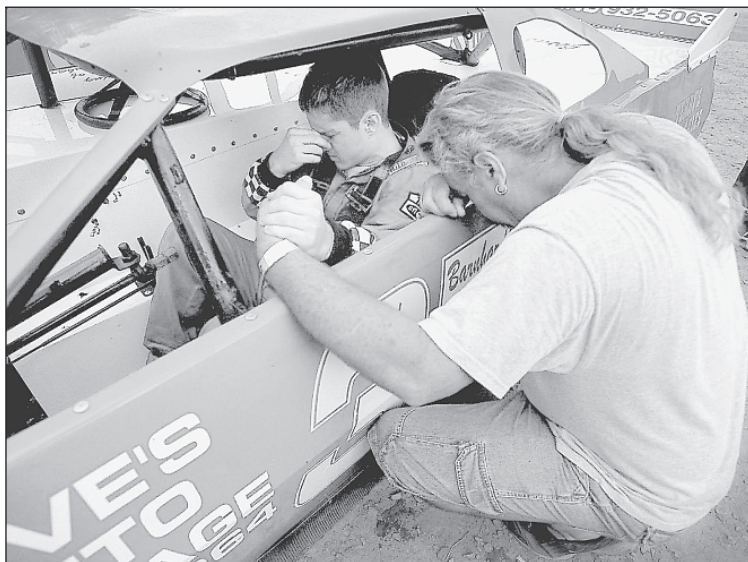
Medical experts for Championship Auto Racing Teams (CART) and the Indy Racing League (IRL) say that young with significant heart disease generally shouldn't race. Dr. Paul Colavita, a cardiologist who heads Charlotte's Sanger Clinic, agrees. He and others say the physical and psychological stress drivers experience during races can prove fatal to those with heart problems.

John Jolley, a 53-year-old veterinarian from Forest City, had suffered a previous heart attack, and in 1990 had surgery to replace two heart valves. Because of his heart condition, the Federal Aviation Administration told him he could no longer fly his small plane.

Jolley began driving a race car in 1997. On Aug. 29 that year, during a race at Green Hill Speedway in Rutherford County, Jolley had a fatal heart attack. His car burst off the track and sailed over a guardrail. Watching from behind the guardrail, spectator Thomas Lee Parker pushed his girlfriend and cousin out of the way. Jolley's Ford Thunderbird hit Jolley, a retired truck driver from Spindale, and threw him into the air. Parker died of massive head and chest injuries.

"It was a freak accident, but it was avoidable," says Parker's son, Dale. "If you have any kind of heart problem, you shouldn't be allowed to race."

A number of racing groups — including CART, IRL, Formula One and NASCAR — require drivers in major se-



David Barnhardt, 15, prays with his father, David Sr., before a race at East Lincoln Speedway. About a third of tracks surveyed by The Observer allow youths to race before they're old enough to get a driver's license. Experts wonder if minors have enough judgment and experience to handle high-speed competition.

ries to take annual physicals. But thousands of drivers who race on smaller tracks are never asked to take a physical. An Observer survey of nearly 100 race tracks nationwide found that more than 90 percent don't require physicals for any drivers.

Carl Merrill, a 62-year-old innkeeper from Maine, insisted on staying active despite a previous bypass surgery and three prior angioplasties. After his last angioplasty in 1997, both his cardiologist and his wife, Barbara, urged him to stop road racing and to start taking it easy. But that wasn't Merrill's style. He kept racing, jogging, skiing and rollerblading.

Two weeks before an October 1998 road rally in Arizona, Merrill was at a conference when he began sweating profusely, a sign that he was probably having another problem with clogged arteries, his wife said. She urged him to see his cardiologist, but he refused.

"He didn't want to miss that race in Arizona and he knew this doctor would lay down the law," Barbara Merrill said.

During the first phase of the road rally, Merrill suffered a heart attack. His car veered off the road and into a tree. A day later, he was dead.

The Sports Car Club of America, which sponsored the race, does ask drivers in such races to answer an annual health questionnaire and divulge any serious medical ailments, according to Peter Lyon, who is in charge of the club's insurance program. (The club wouldn't disclose how Merrill answered those questions.) But if drivers fail to admit health problems, there's little the organization can do, Lyon said.

"We're not their mother," he said. "It's the driver's responsibility."

Checked driver requirements

Many drivers are skilled and safety-conscious. But some keep racing even after they've been ruled unfit to drive on public highways.

By 1994, Jeffrey Willet's driver's license had been suspended more than 100 times for drug violations or drunken driving. A central New Jersey resident, Willet had been barred from driving on public roads since 1985.

New Jersey, which does regulate racing, requires racers to have a valid driver's license. But Willet began racing at Wall Stadium near Asbury Park in the early 1990s by using a false name and submitting an acquaintance's driver's license instead of his own.

On June 18, 1994, Willet was on the first lap of a race at Wall Stadium, jockeying for the lead, when his stock car collided with another vehicle and was launched into the air. Willet's front right wheel hit flagman Dave Innes in the head, knocking him from the flag stand. Innes, a tour bus driver with a talent for making people laugh, soon died of massive head injuries.

The state police officers who investigated the wreck didn't blame Willet or anyone else for the wreck.

Willet said the accident wasn't his fault. One driver had pinned him against the wall, he said, and another hit him from behind.

"I can't change the situation, what happened," said Willet, who owns an auto repair shop. "They blamed it all on me because I was driving on the revoked list."

Still, Innes' daughter, Shirlene Taskowitz, wonders why track officials were so easily fooled. "Why couldn't Wall Stadium find out all of these things about their drivers?" she asked.

The license that Willet presented to the track had no photograph. New Jersey doesn't require photo identification for race drivers, but Wall Stadium owner Tucker Nicoll said he thinks it should. Nicoll declined to comment on the accident.

In many states, it would have been even easier for Willet to race. New Jersey, Connecticut and Vermont are among the few states that set requirements for drivers. No Southeastern states regulate racing or require a valid driver's license for those who race on private tracks. Not all tracks require, or regularly check, a driver's license.

This year, Davidson resident Ron Tornatore raced at East Lincoln Motor Speedway in Stanley, despite a license suspension for driving while impaired. It was his second drunken driving conviction, and his N.C. driver's license had been suspended repeatedly since 1995. The clay oval, northwest of Charlotte, doesn't require drivers to have a valid driver's license, and Tornatore sees no reason why it should. Driving on the streets is "totally different," Tornatore says.

"When you're out on the track, there are no laws," Tornatore said.

Ryan Jamison, aged 12, was racing into race cars. Children as young as 5 compete in go-kart and quarter-mile tracks. Kids 7 to 17 race in "junior dragsters" that can travel more than 70 mph. And some as young as 12 move up to full-size race cars. Many are inspired by drivers like NASCAR's Jeff Gordon, who got his start racing quarter-midgets at age 5½.

One indication of the sport's growing popularity: Officials with the World Karting Association estimate the number of go-karters under 16 has roughly doubled since the past decade, to about 20,000 nationwide.

Some youths outpace far older drivers. In 1998, 12-year-old Gerald Miller won the championship in the pure stock four class — four-cylinder cars that usually go about 60 to 80 mph — at North Carolina's East Lincoln Speedway. And 14-year-old Jon Denning, from New Jersey, regularly drives over 100 mph at Hickory Motor Speedway, where he was one of the top late-model stock car

plans to reintroduce it next year. His argument: Racers ordinarily don't need a driver's license to compete on such tracks anyway.

Others contend tracks should turn away racers convicted of drunken driving because lives depend on the quick reflexes and good judgment of drivers.

"If your driver's license is suspended for drunken driving, you have no business in a race car," says Jon Potter, director of the Championship Drivers Association, an Indianapolis-based group that lobbies for safety improvements. "It shows irresponsibility in life."

Too young for licenses

In many states, youths too young to drive on highways legally rear around tracks at speeds that would scare most adults.

Fifteen-year-old Jimmy Olson loved wrestling, roller-blading and, above all, racing. He'd been driving go-karts since he was 8, and dreamed of becoming a championship driver.

Afterward, a Wisconsin state representative talked about proposing legislation to set a minimum age for race car drivers. But the lawmaker abandoned the idea after parents of young racers lobbied against it.

Jimmy Olson's father still believes his son had the right to race. "Some parents do what they can to try to help their children reach their goals," said James Olson. "Anything less than that is unacceptable."

Across the nation, thousands of youngsters are strapping themselves into race cars. Children as young as 5 compete in go-kart and quarter-mile tracks. Kids 7 to 17 race in "junior dragsters" that can travel more than 70 mph. And some as young as 12 move up to full-size race cars. Many are inspired by drivers like NASCAR's Jeff Gordon, who got his start racing quarter-midgets at age 5½.

One indication of the sport's growing popularity: Officials with the World Karting Association estimate the number of go-karters under 16 has roughly doubled since the past decade, to about 20,000 nationwide.

Some youths outpace far older drivers. In 1998, 12-year-old Gerald Miller won the championship in the pure stock four class — four-cylinder cars that usually go about 60 to 80 mph — at North Carolina's East Lincoln Speedway. And 14-year-old Jon Denning, from New Jersey, regularly drives over 100 mph at Hickory Motor Speedway, where he was one of the top late-model stock car

drivers this year. He comes to North Carolina because New Jersey law doesn't allow people his age to race.

Some safety experts and driver's education instructors question whether most minors have enough judgment and experience to handle the demands of high-speed competition. "You have to learn how to harness your tribulance," says Potter, of the Championship Drivers Association. "I don't think a person who hasn't at least obtained a driver's license has that ability."

Says Karl Logan, who coordinates driver's education for Charlotte-Mecklenburg Schools: "As a general rule, I'd say they're not anywhere near ready... I don't think they've experienced enough to understand the importance and finality of a potential crash or collision."

Only a few states set a minimum age for privately owned tracks. Roughly a third of the track managers interviewed by The Observer said they don't require drivers to be at least 16.

At age 11, David Lucas took his mother he wanted a race car. At 12, he got one — a beat-up Toyota Corolla, which he took to Carolina Motor Speedway in Gastonia last year and promptly flipped. The pillow Lucas had been sitting on so he could see over the dashboard flew out the window during the wreck. But Lucas emerged from the car laughing and unhurt. From then on, he had a nickname: "Flipper."

Now 13 and a seventh-grader at Charlotte's Wilson Middle School, Lucas has improved his driving skills. This year, he ranked fourth in the track's stock four class. He typically drives about 60 mph, and hopes soon to try faster cars. His mother, Toni, supports him, but his father, Tom, is more cautious. "I'm a silent prayer: 'Lord, please watch over my little boy. Keep him safe while he runs his 20 laps,'" says David Barnhardt.

David Barnhardt, 15 and in 10th grade, has been racing since last year, mostly in a small four-cylinder car that rarely exceeds 65 mph. But at a September race at East Lincoln, Barnhardt climbed into a faster car — an eight-cylinder late-model, the most powerful class of cars at the track. As other cars sped around the track at 85 to 95 mph, Barnhardt trailed the pack and spun out twice.

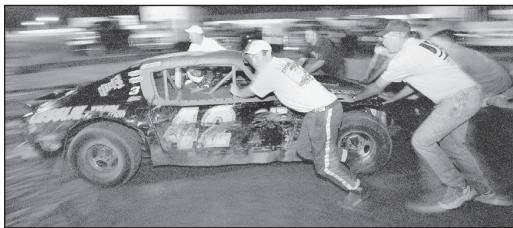
A Superman logo adorns the hood of Barnhardt's new race car. He earned that nickname driving four-cylinder cars. "I got a name for doing crazy things," he says. He says he's been in about 10 or 12 wrecks.

When Barnhardt switched to a faster racing class, some people told him he didn't have enough experience to drive such a big car and warned that he could be killed in a crash, he said. But he never hesitated.

"Don't let anybody tell you that you can't do anything," Barnhardt says.

STAFF WRITERS: UZ CHANDLER, ANDREW SHAN AND PETER ST. ONGE CONTRIBUTED TO THIS REPORT.

Rooster Outlaw's pit crew hurries to get him back on the track at Lancaster (S.C.) Speedway. Pit areas at small tracks can be chaotic, with cars speeding in and out, some narrowly missing spectators and crew.



JEFF SENER - STAFF PHOTOS

The viewing is good - but also more dangerous - from the pit and infield areas at small tracks. Here, a chain-link fence stands between children and the action at Carolina Speedway near Gastonia.



East Lincoln Speedway official Corky Linder directs cars after a minor wreck. On this night, some races didn't go more than five laps without a wreck.

Nights of danger

Near pit road, the path drivers take to get off the track, children play tag in the dark.

Cars speed through the pits as spectators and crew members leap out of the way.

A driver runs from his vehicle to jump up and down on the hood of a car that just hit him.

Gritty, unpredictable and often dangerous, this is racing on a Saturday night at small tracks in the Carolinas and across America.



Above, Carolina Speedway workers help right a car that overturned on a straightaway.

At left, workers free Bryan Dean from a one-car wreck on the backstretch at Lancaster Speedway. Lancaster, unlike some speedways, has emergency medical workers and ambulances on hand. Dean suffered minor injuries.

INSIDE THE CULTURE

Racers just can't resist

Speed, fury and competition add up to who they are

BY PETER ST. ONGE
Staff Writer

When he's running wide open, that's when the young driver feels most alive. It's the speed, Robby Benton says, but it's more than the speed. It's him and the car, forging something greater than the sum of both parts. It's the team, the effort, his life.

"When all that comes together," he says, "that's the biggest high."

He is 22 years old, and he loves racing, simple as that. He loves the brotherhood of drivers and the familial warmth of fans. He loves building and rebuilding cars in the 40-by-40-foot shop behind his parents' house in northern Mecklenburg County. He loves going fast.

It is, as for many racers, an affection passed down through generations. His grandfather raced, and his uncle raced, so no one was surprised when young Robby started in go-karts at 14. Perhaps it was inevitable, too, that one weekday morning last month, he asked himself if he should race at all.

The night before, on Oct. 4, Benton was part of a wreck that killed ARCA driver Blaise Alexander, his friend, at Lowe's Motor Speedway. Benton drove one of two cars about to be lapped by Alexander and Kerry Earnhardt, the leaders late in the race. Alexander and Earnhardt bumped, sending Alexander into the wall. Some thought Benton's slower car prompted the wreck.

No, he told a reporter the next morning; he had done everything right. "I'm at peace with what happened," he said.

But another question lingered: Why drive?

It is a question that has forever floated around racing. Why tempt danger? It's the speed, drivers say. It's the competition. The fury.

"It's addictive," said John Phillips, a longtime Winston Cup crew member and older brother of Russell Phillips, who was killed in a 1995 race at then Charlotte Motor Speedway. "I've seen marriages and whole families ruined."

"I don't know if it's the adrenaline, or the brotherhood or the satisfaction of being able to do it."

Robby Benton offers another theory. Racing, he believes, is not merely something you do. "My whole life revolves around it," the young driver says. "It's who I am."

The old driver understands this. Dave Marcis started racing in 1957, when the automobile was just becoming the great social equalizer - and racing cars for sport a fledgling rural recreation. It happened more intensely in the South, but the story everywhere was the same: Racing was, for both drivers and fans, an accessible pastime.

"Basically, you had drivers who came from working in a saw mill or with cotton," says Marcis, at 60 the oldest active Winston Cup driver. "(Racing) was probably a better way of living."

Still, Marcis says, racers drove as much for the competition as the payoff. Even now, with big money enticing some drivers to the sport, the hook comes from elsewhere: "When you take that green flag, and you've got 43 race cars out there, it's pretty damn exciting. There's no feeling like it."

Such is true, too, for racing's fans, who remain as connected to their athletes as fans in any sport. Perhaps it's the shared roots, or shared love for cars. Perhaps, says sports psychologist Tom Tutko, it's that racers satisfy a basic human want - to find and stretch our limits.

"Race drivers represent the epitome of finding the edge," says Tutko, one of the founding fathers of sports psychology. "They're going as fast as you humanly can go in a competitive environment, and that represents the ultimate in stimulation."

But, Robby Benton knows, consequence is never far from the thrill. His friend, Kenny Irwin, died in practice at New Hampshire last year. Now Blaise. "I ask myself if it's selfish to race," Benton says. "I have family to think about."

Yet he, like other drivers, believes that if he is careful, he's as safe as anyone driving to work on crowded interstates. And so last month, Benton worked on rebuilding a junked race car with his team of after-work volunteers. They took the car to the ARCA race at Talladega, Ala., where he finished sixth.

It was the answer to his doubts. Racing, he says, is what he wants as his future. Wouldn't anything else be compromising his life?

"I'm not going to say it's worth losing your life," he says. "But if it's worth taking a chance on, then it's worth doing it."

DEATH AT THE TRACK

As fatalities rise, so does pressure for safer racing

Awareness grows; will change follow?

BY AMES ALEXANDER
PETER ST. ONGE, LIZ CHANDLER
AND DIANE SUCHETKA
Staff Writers

Earlier this month, on a nondescript Thursday morning, NASCAR drivers, team owners and officials gathered at the Huntersville offices of Joe Gibbs Racing. For more than two hours, the participants talked safety - specifically about changes, aerodynamic and otherwise, to make racing less hazardous at Winston Cup's two biggest super-speedways, Talladega and Daytona.

The meeting, however, carried a larger

significance. NASCAR wanted to discuss safety with its drivers, who have long complained the organization didn't involve them enough in discussions about their livelihood. "That has never changed," said legendary driver Richard Petty with a laugh, two days after the meeting. "But every step we take is better than what we have."

Certainly, NASCAR had impetus to listen. A February crash claimed its biggest star, Dale Earnhardt, in what has been a troubling year for the racing industry as a whole. At least 33 people have died at U.S. racing

events in 2001, and some are questioning whether the sport finds itself at a crossroads.

"The mere fact that we're killing, disabling and seriously injuring so many people would indicate we need to do something," said Samuel Gualardo, a past president of the American Society of Safety Engineers, who has pushed for racing safety improvements.

Said NASCAR driver Jeff Burton: "We have to as a community collectively make it better. There's no doubt about it. We have to make it better."

The Observer interviewed drivers, team owners, mechanics, safety experts and officials with top racing organizations. Here are some of their recommendations on how racing - an inherently dangerous activity - can be safer.

Require drivers at all levels to wear up-to-date safety equipment.

PROBLEM: Since 1990, more than 100 drivers nationwide have died after hitting their heads or snapping their necks in crashes. Others were badly burned in wrecks while wearing inadequate fire-retardant clothes.

RECOMMENDATION: Research suggests head restraints can save lives, and experts advocate them for drivers at all levels.

Championship Auto Racing Teams (CART) began requiring drivers to wear head-and-neck restraint devices on oval tracks this year. NASCAR last month mandated restraints for drivers in its three national series but hasn't decided on its short-track series. Other racing groups merely recommend that drivers wear them, and few drivers on small tracks do.

The cost can be an issue. One brand of head restraint, known as the Hutchens device, costs \$300; another, known as the HANS device, costs \$1275 (\$675 for children's models). Those who wear restraints say all drivers should be required to do so. NASCAR drivers Jeff Gordon, Mike Skinner and Elton Sawyer credit the HANS device with saving their lives.

Experts also recommend drivers equip their cars with on-board fire extinguishing systems and wear one-piece driving suits and other protective gear made from a material such as NOMEX, which can protect drivers from serious fires.

■ "If I could send one message to every racer, it would be don't even do a practice lap without some sort of head restraint on. Those things are life savers." - Mike Skinner, a Winston Cup driver who wore a head restraint when he survived a wreck at Chicagoland Speedway in July.

■ "People will buy a \$79 fire suit and think that will save them. I used to think that too. It took a friend's death to change my mind. When it comes to your safety - it's priceless." - Curtis Ender, an Oklahoma stock car racer whose mentor, Delmar "Junior" Rig-

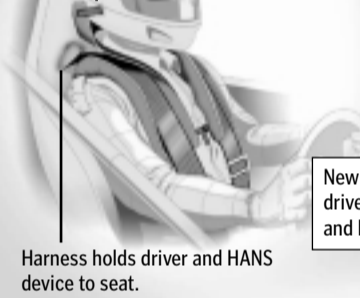
Protecting Drivers

Technological advances can help protect race car drivers. Here are some key devices and materials in use or under development:

DRIVER HEAD RESTRAINT HARNESS

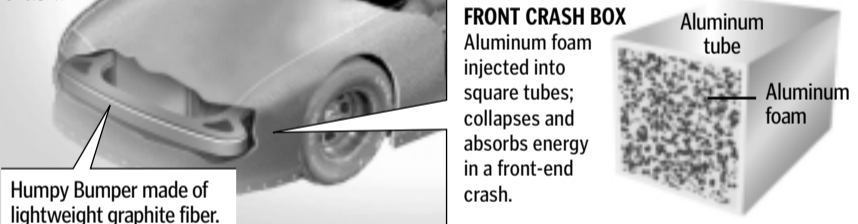
HANS (head and neck support) device, worn over driver's shoulders; helps prevent whiplash during a crash.

HANS device strapped to helmet to limit head movement.



CAR DESIGN, FRAME MATERIALS

Crushable materials collapse at a predictable rate and absorb energy in a crash.



Humpy Bumper made of lightweight graphite fiber.

'BLACK BOX' CRASH DATA RECORDER

Onboard recorders already in use on Indy-style and Formula One cars; recordings can help engineers determine what caused a wreck.



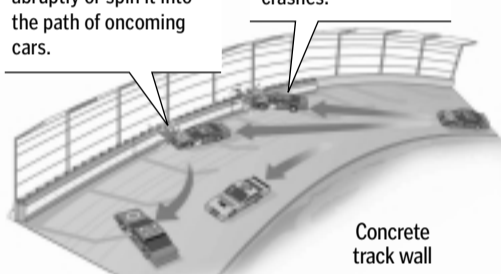
New seat design protects driver's head, shoulders and knees.

Larger window opening lets driver escape faster.

Energy-absorbing track walls

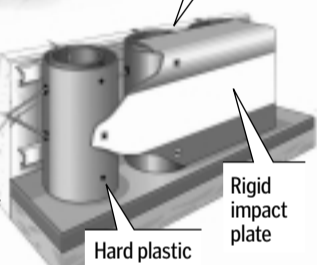
GLANCING BLOWS
If not carefully designed, "soft" walls can snag a car and cause it to stop abruptly or spin it into the path of oncoming cars.

DIRECT HITS
"Soft" walls can reduce stress on drivers' bodies during crashes.



INSIDE A "SOFT" WALL

This barrier design, called PEDS-2, is attached to an existing concrete track wall; installed on a small section of wall at Indianapolis Motor Speedway.



MEDICAL TEAMS

■ NASCAR: Plans to hire a medical liaison - as well as four doctors - to consult with local physicians and emergency personnel.

■ Championship Auto Racing Teams (CART): Seven physicians travel the race circuit with a \$1.5-million mobile surgical and intensive care unit.

SOURCE: HANS, TEAM SIMPSON RACING INC., HENDRICK MOTORSPORTS, INDY RACING LEAGUE, UNIVERSITY OF NEBRASKA, ORLANDO SENTINEL KNIGHT RIDDER/TRIBUNE

gins, burned to death after a 1999 accident.

Cushion the impact of crashes.

PROBLEM: Since 1990, more than 60 drivers died after hitting track walls.

RECOMMENDATION: Some drivers want racing officials to speed up research into energy-absorbing materials for walls and cars. The Indy Racing League and NASCAR are sponsoring research into the development of "soft" walls - a project led by nine engineers at the University of Nebraska. Racing officials aren't sure when an effective wall will be ready. The cost of such walls - which likely would amount to hundreds of thousands of dollars for a half-mile track - could present obstacles for all but major-league tracks. Some tracks, such as

New York's Watkins Glen International, already have installed styrofoam or tire barriers along walls. But researchers have found that such wall materials can catch or snag cars, causing them to stop abruptly or spin into the path of other cars.

Energy-absorbing materials in cars also hold promise. NASCAR officials are encouraged by the development of porous aluminum, which could be placed between the engine and the front bumper to reduce the impact on drivers. The so-called "Humpy Bumper," made of carbon fiber, also could absorb energy and prevent crash deaths and injuries, according to Lowe's Motor Speedway President H.A. "Humpy" Wheeler, who has championed the device. NASCAR officials, however, say they're not yet convinced the bumper would be effective.

■ "That's the next huge move that can improve our sport tremendously." - Retired racing champion Mario An-

dretti, talking about soft walls.

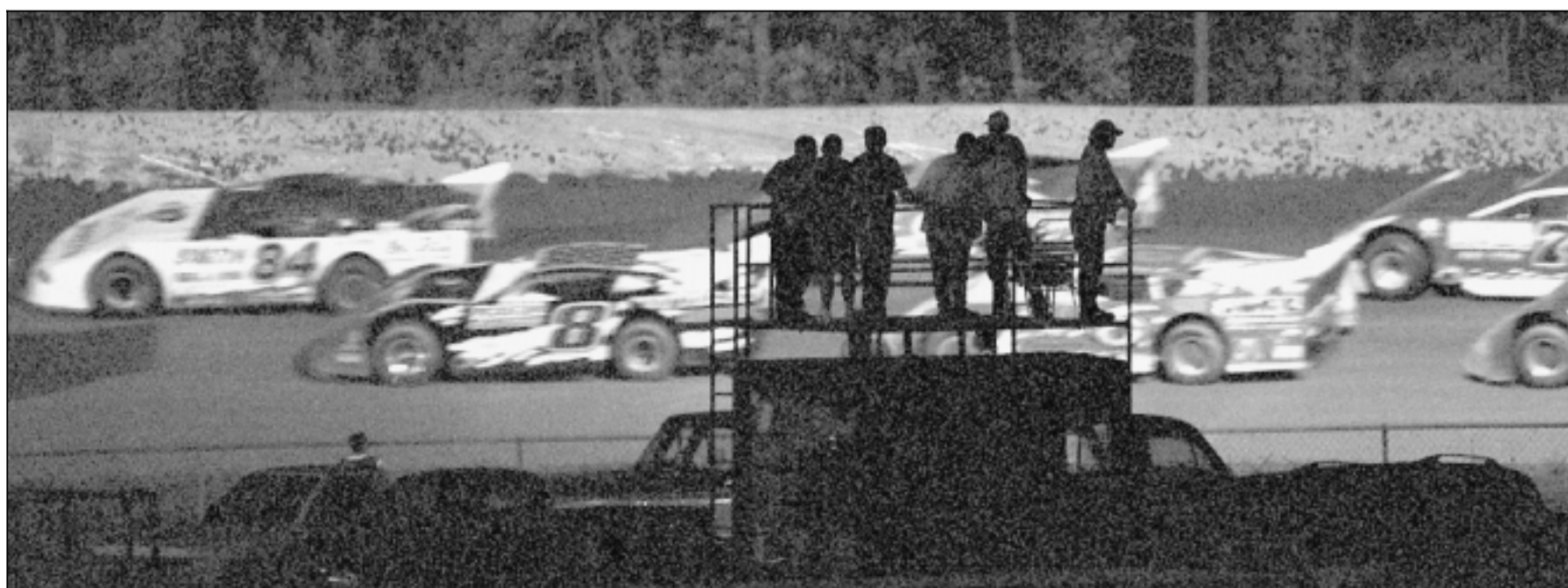
■ "If we can put a man on the moon, we should be able to come up with a soft wall... They just haven't made it a priority. It's the sanctioning bodies that need to lead the way." - Jerry Gaines, a former short-track racer whose son, David, was killed in a 1990 wreck in Concord.

Require substantial fences to protect spectators.

PROBLEM: Since 1990, at least 16 spectators have died after cars or debris flew over fences into grandstands. Dozens more have been seriously injured, and track owners say car parts commonly clear fences.

RECOMMENDATION: Safety advocates think racing groups could develop standards for the height and design of fences.

SEE OPTIONS | NEXT PAGE



To reduce deaths and injuries, experts say, racing organizations should develop standards for barriers and fences in the infield and pit areas. At Lancaster Speedway, a shoulder-high chain-link fence separates the track from the pits and infield.

JEFF SINER - STAFF PHOTO



Some tracks – such as South Carolina's Lancaster Speedway pictured above – allow children and spectators in the pits, which tend to be among the most dangerous parts of a track. Some safety experts say tracks should ban spectators and children from the pits during races.

JEFF SINGER - STAFF PHOTO

Options

track fences. They now range from about 9 feet as some small tracks to 21 or 22 feet at a few major racing venues. With little research to guide them, tracks tend to build the minimum set by insurance companies or build fences similar to those at other tracks.

Experts say the best fences are anchored in concrete, reinforced with cables and designed with a top section that hangs over the track to keep accident debris out of the stands. A few states, including Connecticut and Vermont, require minimum fence heights. Insurers say variation is expected, depending on the size and design of the track, and the type of cars racing.

- "Probably with a better design, you could have prevented quite a few of those [deaths]." – Safety engineer Carmen Daecher, who heads an American Society of Safety Engineers group studying racing hazards.

Move the fans back.

PROBLEM: At small tracks, fans often stand against track-side fences, which can be dangerous in a crash. In 1997, Melanie Rachelle Mitchell, 16, died after a wheel flew into the fence she was standing against at Cowtown Speedway in Texas.

RECOMMENDATION: Tracks should be vigilant about moving fans who stand against fences or near track entrances. After races begin, security workers at Lowe's Motor Speedway try to make sure fans don't get too close to track-side fences. Some experts believe tracks should distance spectators from the danger by keeping the first few rows of the stands empty. In 1994, Darlington Raceway removed the first two rows of seats in its grandstands.

- "Spectators don't have any concept of what the exposure is if they stand against a chain-link fence. It doesn't slow down the car at all when you're right next to it." – John Fitch, who owns a Connecticut company that develops racing safety equipment. His former racing partner, Pierre Levegh, was driving the car that flew into the crowd at Le Mans in 1955, killing more than 80 spectators.

- "If the front row of seats are right up against the fence, that's not safe." – George Knight of George Knight & Associates, which insures small tracks around the country.

Make pits safer.

PROBLEM: Fans gather in pit areas amid working crews and moving cars. Since 1990, at least nine spectators and 12 track workers and crew have died after accidents in pit, garage and infield areas. Fences and barriers protecting pit and infield areas are less substantial than those near grandstands.

RECOMMENDATION: Experts say tracks should bar spectators from the pits during races. Tracks make money, though, by charging fans extra for pit passes – and protect themselves by requiring those who enter pits to sign releases waiving their right to sue. Tracks should develop standards for barriers and fences around the pits.

- "It'd be like... trying to get into a very crowded gas station and trying to get out as quickly as you can." – Samuel Gualardo, past president of the American Society of Safety Engineers, de-

scribing the hazards of having spectators mill around the pits.

Compile accident data and share safety information.

PROBLEM: No one keeps track of all U.S. racing deaths, so officials miss patterns and often dismiss fatalities as freak accidents.

RECOMMENDATION: Leaders in the sport say tracks and sanctioning bodies should thoroughly investigate accidents, collect detailed information and look for trends. Some suggest reporting the data to a central clearinghouse that would make information available to safety researchers. CART and IRL share safety information and advances. They also require crash data recorders in cars, as NASCAR will next year for its three major national series.

- "The first thing you've got to do is collect the data. You've got to know what's happening before you can react and prevent things. You have to have a standard collection point that's universal for all tracks. And there has to be no fear of reprisals. You should be able to turn in your data without some lawyer digging through to say you're killing 10 times more people than any other track." – CART physician Terry Trammell.

- "We could have some sort of non-profit entity whose purpose is to collect data on race injuries and deaths... What we need is something that can bring all these elements together." – Humpty Wheeler, Lowe's Motor Speedway president.

Provide adequate emergency medical care at all tracks.

PROBLEM: Some small tracks provide poorly trained rescuers or have no first-aid or ambulance on site. Since 1990, at least 18 people have died or been seriously injured at tracks where victims or their families say emergency response was inadequate.

RECOMMENDATION: Tracks should have firetrucks, extinguishers, life-saving equipment and an ambulance for fast transport to a trauma center, experts say. Elite racing groups won't race until those precautions are in place. In CART, seven physicians travel the race circuit with a \$1-million mobile surgical and intensive-care unit. NASCAR plans to hire a medical liaison – along with four doctors – to consult with local physicians and emergency personnel.

- "The most important piece of equipment at a race is the firetruck – and it's usually the most forgotten." – Chief Craig Clarke, founder of a private fire company that supplies firefighters, emergency medical response and safety advice to tracks in the eastern United States.

Require drivers to prove they're healthy.

PROBLEM: Since 1990, more than 30 drivers have died from heart attacks while racing, sometimes endangering others.

RECOMMENDATION: Better health screening could save lives. Doctors say drivers should be required to pass reg-

ular physical exams, and furnish documentation to race tracks. Elite racing groups require proof of good health at the start of racing season and again after serious races. But smaller organizations and tracks don't mandate them.

- "There are a lot of drivers who'd love to race, but have a physical impairment that would endanger not only themselves but spectators and other drivers as well." – CART medical director Steve Olvey.
- "A thorough physical should be required of everybody. That's definitely my feeling about what I've been through." – Diane Matheny, whose husband, Doug, suffered a fatal heart attack this year during a race at Washington's South Sound Speedway. Matheny, of Olympia, Wash., had three heart attacks in 1998 and triple bypass surgery in 1999.

Beef up safety inspections on cars.

PROBLEM: Mechanical problems were cited as a possible contributor in more than 30 fatalities since 1990. Of the 29 fan deaths, 10 happened after tires and other parts inexplicably came off cars. Stuck throttles also are named as a possible cause in at least 10 fatalities.

RECOMMENDATION: Race tracks and sanctioning bodies could eliminate some mechanical hazards by making pre-race car inspections mandatory and more thorough, safety advocates say. Most small tracks conduct safety inspections at the start of the season, but do only cursory safety checks the day of the race. CART and Formula One require computers systems that automatically shut off the engine if the throttle sticks. NASCAR officials worry that such in-car computers create the possibility of high-tech cheating. NASCAR requires engine-kill switches mounted on the steering column, but some drivers question whether they could hit the switch in time to avoid a wreck.

- "Every top mechanic has had (a stuck throttle) happen one time or another." – David IRL, a longtime mechanic for NASCAR and ARCA drivers, speaking of stuck throttles, a problem he estimates he's seen about 30 times on race cars.

Mandate valid state driver's licenses.

PROBLEM: Some racers compete even though their highway driver's licenses have been suspended for drunken or reckless driving. Also, teens too young for a driver's license are sometimes allowed to race at speeds near 100 mph.

RECOMMENDATION: Some leaders in the sport suggest tracks should ban competitors who can't show a valid driver's license, a step some tracks take now.

Driving experts say minors may not have the judgment and experience that high-speed racing demands. Some racing leaders say youths should race under close supervision and only against other youths. Others contend some children are qualified to race against adults, as top racers like NASCAR's Jeff Gordon did. Driving experts say racing should study the issue.

- "If you don't have your driver's license, you shouldn't be able to drive a race car. There's probably a good rea-

son you don't have one." – Humpty Wheeler, Lowe's Motor Speedway president.

- "At 14, 15, even 16, you'd have to be an exception to the rule to really be able to handle it. Certainly your average kid couldn't do it." – Chuck Lehning, director of operations for Jordan Drive School.

Make spectators aware they should be more cautious.

PROBLEM: Since 1990, at least 29 spectators were killed – and more than 70 injured – after they were hit by cars or parts.

RECOMMENDATION: Be cautious. Don't let children roam unattended. Stay away from track fences, pits and other risky areas where cars enter and exit tracks. Racing officials should educate spectators about track hazards with guidebooks, signs and announcements, safety advocates say.

- "You constantly have to keep people back. I think they'd go on the track if you let them. It just amazes me." – Richard Dutton, general manager of Salem (Ind.) Speedway.

Be sure track workers are well protected.

PROBLEM: At least 24 crew members and track workers – including five flagmen – have died in accidents since 1990.

RECOMMENDATION: Experts suggest racing should develop an industry standard for worker safety. Many tracks – but not all – put flagmen in well-protected platforms high above the track. Track workers should be thoroughly trained on how to avoid dangerous situations.

- "I feel he died in what was because of what he was standing on." – Gloria Innes, on the death of her husband, Dave, a flagman who was killed by an airborne car while standing on a wooden 5-foot-high platform.

Listen to drivers.

PROBLEM: Some racing organizations, including NASCAR, have no drivers' safety committee to voice concerns and push for changes.

RECOMMENDATION: With a formal safety committee, some say drivers could more quickly and effectively address safety problems. CART and IRL drivers use the Championship Driver's Association to voice their safety concerns. In April, CART canceled a race at Texas Motor Speedway when drivers complained of dizziness due to high speeds. After a recent driver's meeting, NASCAR officials promised changes to rules that tend to keep cars in dangerously tight packs at Daytona and Talladega.

- "Nobody will be more interested in safety than the drivers themselves." – Mario Andretti.
- "I am in big favor of NASCAR, the drivers, the car owners, the manufacturers... all working together to make things safer. We're not where we need to be today. But I see us getting there." – Winston Cup driver Jeff Burton.

What Racing's Leaders Say

Groups with the most deaths since 1990:

NASCAR, 36 DEATHS

"I strongly believe that the industry as a whole, particularly as it relates to stock car racing, is safer than it's ever been." – Mike Helton, National Association for Stock Car Auto Racing president.

NRA, 22 DEATHS*

"We investigate every case and try to determine what we can do to prevent the accident. A lot of rules have unfortunately come at the misfortune of others." – Graham Light, National Stock Car Racing Association senior vice president.

SCCA, 13 DEATHS**

"Safety is our number one goal and our number one concern. I think the awareness level is probably higher than it's ever been." – Steve Johnson, Sports Car Club of America president.

USAC, 12 DEATHS

"We quietly are always working in scientific studies on increased safety in our series. There's an accident report for every accident at USAC that's complete and concise." – James Capels, U.S. Auto Club president.

ARCA, 6 DEATHS

"As we've gone forward, we've made changes." – Ron Drager, Automobile Racing Club of America president. Changes include asking inexperienced racers to attend driving school or drive in more events in other circuits.

*NRA officials confirmed 18 deaths at sanctioned tracks since 1990. Track owners confirmed three others.

**The SCCA officials confirmed five deaths at SCCA races since 1990, but declined to give identity them.

About This Series

During a nine-month investigation, Observer reporters and researchers confirmed racing deaths in the United States from 1990 through October 2001 by searching newspapers and the Internet and contacting relatives, drivers, racing groups and tracks. The study of deaths began in 1990 because reports since then are more available in databases and the Internet.

Reporters spoke to family members for verification, except for deaths that were well-reported. When no family member was available, information came from track officials, friends or published reports. The largest racing groups were contacted to confirm deaths.

Information that happened on the track or within minutes of a driver finishing a race were included. Deaths at racing schools were not counted; nor were deaths involving motorcycles, youth go-karts, monster trucks or mail racing.

The Observer then created a database and analyzed it for patterns. Reporters interviewed more than 400 relatives, drivers, track and racing officials and safety experts.

On the Web

See this special report online, as well as a searchable database of racing fatalities and an interactive graphic: www.charlotte.com/racedeaths/

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Editors: Cheryl Carpenter, Susan Gilbert (photo and filler graphics); How can drivers and fans influence safety improvements? We'll appreciate your thoughts on the contents of this special investigative section. E-mail us at perspective@charlotteobserver.com. Write to: Racing Project, Charlotte, NC 28239-0308. Fax to: (704) 358-5037. Call (704) 358-5063. Please include your name, address and telephone number; we'll publish a selection of responses in next Sunday's Perspective section.

DANGER at the TRACK

Potential hazards abound at speedways and drag strips. Every track is different. This oval — a composite of a major speedway and small dirt and asphalt tracks — shows top trouble spots for drivers, workers and spectators.

260 RACING DEATHS SINCE 1990



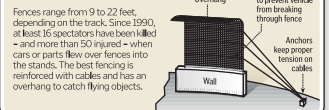
- STOCK** 94 deaths
Vehicles with bodies of mass-produced passenger cars and trucks.
- SPRINT** 52 deaths
Open-wheel cars with short bodies. Drivers are enclosed in a roll cage.
- DRAG** 42 deaths
Different types of cars speed down an eighth- or quarter-mile strip.
- MODIFIED** 24 deaths
Open-wheel vehicles with stock car-style bodies.
- ROAD** 18 deaths
Sedans and open-wheel cars race on paved tracks with numerous turns.
- INDY** 16 deaths
Open-wheel cars with long, narrow bodies.
- OFF ROAD** 8 deaths
Sedans and open-wheel vehicles race on unpaved courses.

Note: Does not include three deaths each in kart and Figure 8 races.

Trouble Spot?



Fence Construction



Barriers

Track barriers are the chief protection for spectators.

- Concrete**
Such barriers can keep cars away from spectators, but they can be deadly to drivers when hit head-on. Researchers are trying to develop "soft walls" to absorb some of the impact, but must address drivers' concerns. Some soft walls snag cars or come apart on impact.
- Guardrails**
When bent or poorly maintained, these do little to keep cars on the track and can break up on impact and cause serious injury or death. In 1991, drag racer Oscar Lubbe died at Mooresville (N.C.) Dragway after a piece of metal guardrail penetrated his windshield and struck him in the head.
- Dirt barriers**
These often fail to stop race cars and can, instead, send some airborne. At least three drivers and one fan have died since 1990 after cars flew over embankments.
- No barrier**
Some small tracks have no barriers on turns.

Flag stands

Flagman Dave Lines — one of at least 14 track workers killed at races since 1990 — was hit by an airborne race car while standing on a 5-foot stand at New Jersey's Wall Stadium in 1994.

Punting deaths

Of the at least 16 spectators who have died in grandstands since 1990, five were killed when cars hit loose parts "punting" them into the stands. Such incidents are difficult to prevent. Some racing groups require flyers on wheels and hoods to prevent them from flying into the stands.

Emergency Response

Rescue response capabilities are inconsistent. Some tracks lack firetrucks; others lack ambulances.

Fan Safety Advice

George Knight, an Oklahoma insurer who has covered small U.S. tracks for three decades, offers these safety tips for fans attending a race:

- Don't sit in bleachers located at a turn, where crashes are common. "We don't allow people to sit in a turn" at the approximately 250 tracks his company has insured, he says. Many tracks do allow seating in turns.
- Watch to see how the night's program is being run. "It's sloppy. If the races don't run on time and the promoter doesn't control the races, I wouldn't go," he says. "I call those outlaw tracks."

Drag Strip Hazard

Dragsters sometimes travel more than 300 mph on quarter-mile strips. Oil, grease or water on the track can cause cars to go out of control and crash.

Pit entrance problems

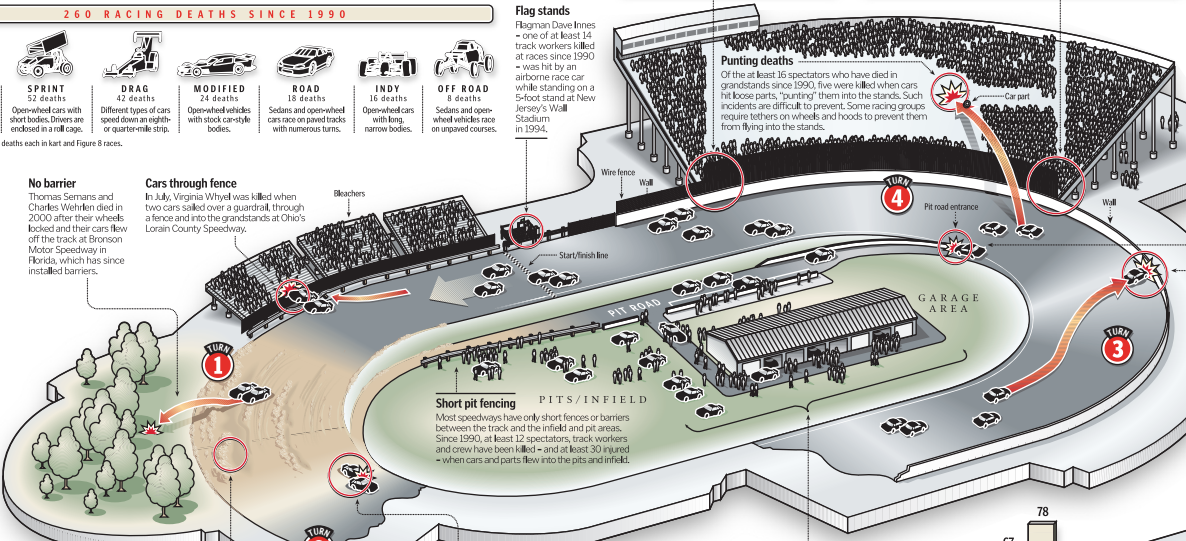
Drivers sometimes hit the ends of guardrails or walls at the pit entrance or other spots on the track. Those areas need to be cushioned, experts say.

Collisions with walls

More than 60 drivers died after slamming into walls. Most experts advocate head restraints and the development of energy-absorbing materials for walls and cars.

High-risk area

Most tracks allow spectators into the pit areas. Small tracks often charge an extra fee. People who go there usually sign liability waivers.



204

No barrier
Thomas Semans and Charles Wehrlein died in 2000 after their wheels locked and their cars flew off the track at Bronson Motor Speedway in Florida, which has since installed barriers.

Cars through fence
In July, Virginia Wyhel was killed when two cars sailed over a guardrail, through a fence and into the grandstands at Ohio's Lorain County Speedway.

Short pit fencing

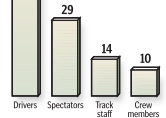
Most speedways have only short fences or barriers between the track and the infield and pit areas. Since 1990, at least 12 spectators, track workers and crew have been killed — and at least 30 injured — when cars and parts flew into the pits and infield.

Drivers' health unmonitored

Since 1990, more than 30 drivers have died of heart attacks during or immediately after races. Most small tracks don't require any proof of good health. Exams would help screen drivers with potentially dangerous health problems.

DEATHS BY ROLE

Drivers aren't the only people who die in track tragedies.

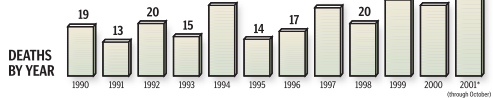


Worm track surfaces

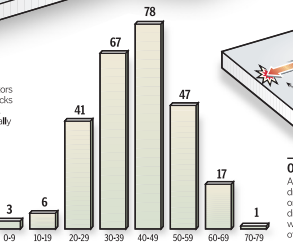
Ruts or holes in dirt tracks can cause wheels to break and cars to crash. Dirt can build up in the corners, creating ramp-like mounds that make it possible for cars to vault over track barriers.

Reconstructed by Anne Alexander, Liz Chavakis, Ted Hanks, David Harkett, Rodica Dobra, Peter St. Onge, Diane Suckalek & Staff
Source: The Charlotte Observer study of U.S. racing deaths since 1990
www.charlotte.com/racedeaths/

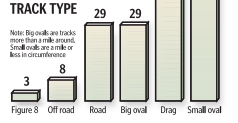
DEATHS BY YEAR



DEATHS BY AGE GROUP



DEATHS BY TRACK TYPE



Off end of track

In 1996, Vickie Lynn Foster was killed and her 5-year-old son was critically injured when a dragster tumbled over a guardrail and chain-link fence and into the bleachers at Sunbeam Dragway in Virginia.