

## RUGBY

# Tragedy Forges Alliance for Change in Concussion Protocol

By **KEN BELSON** DEC. 13, 2015

Photo



Peter Robinson with a photo of his 14-year-old son, Benjamin, who had died after being hit in the head multiple times during a rugby match in which he should have been pulled from the field. Credit Kieran Dodds for The New York Times Advertisement

MIDLOTHIAN, Scotland — At the end of a nearly three-year investigation filled with his frustration and suspicion toward headmasters, coaches and the police, Peter Robinson finally heard the verdict that he feared: His 14-year-old son, Benjamin, had died after being hit in the head multiple times during a rugby match in which he should have been pulled from the field.

As a heartbroken Mr. Robinson and his family left the Old Townhall Courthouse in Belfast, Northern Ireland, that day in September 2013, they were told they could slip out the back to avoid the news media. But Mr. Robinson was determined that his son should not die in vain, so he, along with his ex-wife, Karen Walton, and their families, exited through the front, spoke to a scrum of reporters and instantly landed among the most vocal advocates for concussion safety standards in Britain.

“If we had gone out the back, Ben would have died for nothing and nothing would have been learned,” Mr. Robinson said, sitting in his home in Scotland, a picture of his son in a frame nearby. “By going out the front, we told people what happened. It really kicked off from there.”



Scotland's Howe of Fife Rugby Club now uses a test to help trainers determine with more specificity whether an athlete is impaired. Credit Kieran Dodds for The New York Times

Within months, Mr. Robinson was meeting with politicians, sports executives, professional athletes and, most important, Dr. Willie Stewart, the foremost scientist on the subject in Britain who formed a bond with Mr. Robinson that has helped produce some of the most comprehensive concussion guidelines in the world.

The emotional story of Mr. Robinson's loss wedded to the scientific authority of Dr. Stewart's research led to measures adopted in Scotland that apply not just to rugby but to all sports at all levels, from scholastic games to adult leagues, and are now seen as a model for other countries.

In Scotland, unlike the United States, where each sport has tackled the issue on its own and issued varying protocols, [blanket guidelines](#) aim to protect all amateur athletes and take the guesswork out of assessing potential concussions by calling for players to be removed from the game at the first suspicion of the injury. Their fight is not over; Dr. Stewart laments that much still must be done for athletes who have suffered dementia and other debilitating effects from repeated head trauma, but the pair and their allies have achieved an important start by protecting players on the field now.

"It took something high profile to get people to understand, and it needed something in the media to make people aware," Dr. Stewart said, referring to Benjamin's death. "Even if it just means we're preventing another Ben Robinson and not addressing dementia, that's still very important. We've got to get things to change."

It will take time. A 23-year-old rugby player in England died after absorbing a head injury during a training session on Dec. 6. The player, [Lily Partridge](#), had sustained "a couple" of other concussions in the past but had taken time off to recuperate.

Much of what Mr. Robinson and Dr. Stewart have accomplished is second nature in the United States, where concussions have been a growing part of the public dialogue for several years. Coaches and players in many sports are now taught that concussions, brain injuries resulting from a blow to the head or whiplash, can lead to headaches, memory loss, dizziness, sensitivity to light and other problems.

Football and other contact sports like rugby have come under fire as researchers have established links between repeated head hits and the degenerative brain disease known as chronic traumatic encephalopathy, or C.T.E., which has been diagnosed posthumously in dozens of retired players, some of whom committed suicide.

After an outcry from scientists, retired players and family members of injured and deceased athletes, the N.F.L. and other leagues have adopted protocols during games to detect concussions, pull players from the field, administer on-the-spot tests and detail when they can return to play.

Leagues have also cut the number of full contact practices, changed game rules to reduce collisions and stiffened penalties for players who take aim at a rival's head.

Even sports not considered full contact have taken steps. Last month, for instance, the United States Soccer Federation said it would set [strict limits](#) on youth players heading the ball.

Other countries are catching up, though until recently, sports leaders in Britain — where rugby is the biggest full contact sport that is widely played — resisted calls for action, saying concussions were an American problem synonymous with football and helmets.

“There was a tendency to ignore it because it wasn't in our backyard,” said Barry O'Driscoll, a former top doctor for World Rugby. “They have been very, very slow in the U.K. in picking up what has been obvious to an awful lot of medical and rugby people, and certainly in transferring it to coaches, players and parents, which is the bottom line.”

Chris Nowinski, a co-founder of the Concussion Legacy Foundation, an American nonprofit group that pushes for safe sports, said that concussion management in Britain lags five to six years behind the United States.

The new Scottish guidelines, though, are considered a significant leap forward, Mr. Nowinski said.

“Scotland is a great example of a team of passionate advocates creating change in their community,” he said. “It's a template that I hope others follow.”

Indeed, Canadian lawmakers are [considering a bill](#), named in honor of a teenager who died after sustaining concussions while playing rugby, that includes many of the guidelines introduced in Scotland

Neither Mr. Robinson nor Dr. Stewart had ambitions for such a bold step. Dr. Stewart was running one of the world's leading brain banks, assisting an array of researchers who look at brain trauma in car-crash and assault victims and others, but not focused exclusively on concussion in athletes; Mr. Robinson lived a quiet suburban life near Edinburgh until he got an urgent phone call on Jan. 29, 2011.



The neuropathologist Willie Stewart. “For all the small minds that are critical and obviously trying to deny the inevitable signs,” Dr. Stewart said, “there are a whole bunch of people who are having a positive effect on it.” Credit Kieran Dodds for The New York Times

### **Rugby Produces a Bond**

Concussions were far from Mr. Robinson’s mind when his son joined his teammates from Carrickfergus Grammar School to play their rivals from Dalriada that day.

As he did before every match that he could not attend, Mr. Robinson gave his son a pep talk on the phone the night before. Mr. Robinson lived in Scotland and had remarried, but he and his son remained close and shared a love of sports and rugby, kicking a ball back and forth when the boy visited. Mr. Robinson returned often to Northern Ireland, where he grew up and worked, and where his children lived with their mother, Karen, and her second husband, Steven Walton.

Soccer was Benjamin’s first love, but when he was 11, he took up rugby, which was mandatory at his new school. Initially, he did not enjoy the sport. But he warmed to it after winning the award for most improved player. He did strength and conditioning drills to add muscle, and arm wrestled with his father.

Head trauma was far from Mr. Robinson’s mind.

“I had no concerns,” he said. “My biggest fear was a broken neck or bones, not concussions.”

The match that January day was the second round of the Medallion Shield, a tournament in Northern Ireland for boys 15 and under. Dalriada had beaten Benjamin’s team earlier that season, so payback was a motivation. A center, Benjamin was a rising star, and he seemed destined to be chosen the next year to compete in the Schools Cup, a tournament for older boys.

“He led the line when it came to tackling, especially on the day it happened,” Mr. Robinson said.

The night before the game, his son watched “Invictus,” the film about South Africa’s victory in the 1995 Rugby World Cup. He slept that night in his uniform. When his mother dropped him off at the field the next day, Benjamin flashed a thumbs-up sign.

Ms. Walton returned later with her husband and quickly recognized that the match was particularly rough.

“The force shocked me,” Ms. Walton told The Guardian newspaper. “He seemed to be involved in everything. It was just hit after hit after hit.”

At halftime, Ms. Walton told Mr. Walton she thought her son should come out of the game. She fought back the urge to speak to Benjamin directly because she knew it would embarrass him. So Mr. Walton spoke to the referee, who reassured him Benjamin was playing well. So he played on.

But just minutes into the second half, Benjamin collided with another player, whose shoulder hit him in the chest, according to Mr. Robinson, who obtained a DVD of the match from the police. His son’s head whipped back, and he fell. The coach came to look at Benjamin, who was on the ground for about 90 seconds, and helped him to his feet. A doctor who was watching his son play for Dalriada briefly walked onto the field but then turned back.

After play resumed, Benjamin suffered another big hit. This time, he held his head as he walked to the sideline, where the coach gave him a rudimentary test, moving his finger from side to side in front of the boy’s face. Later in the half, Benjamin was hit yet again, clutched his head and walked away. At the inquest, a teammate said that Benjamin told him he did not remember the score. (Carrickfergus won, 6-5, Mr. Robinson said.)

As time ran down, Benjamin made a tackle and then collapsed. The game was stopped. Ms. Walton ran onto the field, where Benjamin's teammate told her that he was out cold. He was rushed to Royal Victoria Hospital in Belfast.

When Mr. Robinson first got the news by telephone, he thought, "He'll come around; he'll be O.K." But further calls made the urgency clear, so he rushed to Belfast. The drive to the airport in Edinburgh and the wait for the flight were interminable.

"If I could have hijacked a plane, I would have," Peter said.



In a storeroom near Dr. Stewart's office, slices of brain tissue. Credit Kieran Dodds for The New York Times

When Mr. Robinson and his wife, Carol, arrived at the hospital, he knew the situation was dire from the faces of the staff. His son was on life support. The doctors said that his brain injury looked like it was sustained in a car accident and that he had a slim chance of surviving.

Mr. Robinson pinched his son's fingers to see if he could get a reaction. None came. Two days later, the doctors determined that Benjamin was brain-dead. Mr. Robinson and Ms. Walton agreed that

their son's organs would be donated, and he was taken off life support.

As in other cases involving a minor or an unusual death, an inquest was ordered. The preliminary result was that Benjamin died from a single hit at the end of the match. The conclusion, though, began to unravel about six months later, when the pathologist said that Benjamin suffered three brain injuries that very likely occurred on the same day.

Initially, though, a police investigator deferred to the schools when it came to gathering comments from Benjamin's teammates and opponents. Officials at Carrickfergus declined to discuss the case.

According to news reports on the inquest, the coach said that Benjamin did not complain of any problems, and the only doctor on the sideline that day, an anesthetist who was there to watch his son, not at the behest of the school, later admitted that he was unprepared to treat [head injuries](#).

Mr. Robinson did his own research into concussions and learned about second-impact syndrome, or a rapid and severe swelling of the brain that occurs when someone sustains a second concussion before a first one has properly healed.

Ms. Walton and Mr. Robinson, though, had to piece together much of what happened on their own. One break came while Ms. Walton was visiting her son's grave — which she said she did every day — and met one of his teammates, who was out jogging. He told her that Benjamin had been knocked out during the match, not just hit at the end, as had been contended.

By then, the school and family had hired lawyers.

Frustrated that the police did not obtain any meaningful testimony from the students, the family's lawyer sent letters to parents of the children, one of whom said Benjamin had been disoriented on the field.

The big break came when a police officer gave Mr. Robinson a copy of a video taken of the match by a student. Mr. Robinson watched the shaky footage repeatedly and confirmed that his son suffered not one big blow, but at least three, and that the coach attended to him several times.

"I made myself sick," Mr. Robinson said. "Every time I watched it, I found more and more evidence."



A friend helped Mr. Robinson isolate still shots and slow-motion sequences that were shown at the inquest, which was scheduled for one day but went on for six.

“If we didn’t have the video,” Mr. Robinson said, “it would have been put down as a terrible accident, a one-off incident.”

In her report released in September 2013, the coroner said the video was “extremely useful” and agreed with the pathologist: Benjamin had died of second-impact syndrome. She also cited testimony of players who had said Benjamin could not remember details like the score during the game.

Yet she effectively absolved the coach and referee, who were not “made aware of Benjamin’s neurological complaints,” even though the coach can be seen on the video checking on him after a hit during the match. She implied that Benjamin could have let them know about his condition, even though experts say concussion victims often cannot adequately communicate what they are experiencing.

The coach, Neal Kennedy, remains at the school.

### **A New Partnership**

The day the coroner released her report, Carol, Mr. Robinson’s second wife, saw Dr. Stewart on television explaining the gravity of “second-impact syndrome,” so she contacted him for help in understanding the injury. After returning to Northern Ireland, Mr. Robinson wrote to government leaders in Scotland to press for change and make sure that this would never happen to another parent.

Soon after, Mr. and Ms. Robinson, Dr. Stewart and James Robson, the chief medical officer of Scottish Rugby, met with Scotland’s sport and education officials to lobby for change. A concussion-awareness leaflet was produced at the beginning of 2014.

“Ben’s story gets you through the door, and then the experts can get to work,” Mr. Robinson said of his partnership with Dr. Stewart.

They continue to lobby ministers and sports executives across Britain, even speaking at a [parliamentary hearing](#) in April 2014 in London. Students in schools in Northern Ireland are now taught how to spot the signs of a concussion.

It has been an unlikely road for Mr. Robinson and Dr. Stewart, an avid bike rider with no experience as a sideline doctor. But about five years ago, even before Benjamin’s death, Dr. Stewart began to get

calls from former professional players and had conversations with Scottish Rugby as it tried to address brain trauma and degenerative brain disease.

Down the hall from his spartan office in the department of neuropathology at Queen Elizabeth University Hospital in Glasgow is a room filled with freezers containing hundreds of brain samples collected over decades. In a storeroom nearby, slices of brain samples in Lucite fill the shelves.

Dr. Stewart said he would prefer to spend his time looking at slides of tissue samples under a microscope and writing research reports. And while he does not like to speak to the news media, he is aware that knowledge of his research and clinical experience can help coaches and players recognize the dangers of brain injury.

Still, some sports executives have anonymously challenged Dr. Stewart. In one match in April in London, Oscar, the Brazilian star player on Chelsea who is known by one name, collided violently with the goalkeeper yet was not immediately taken out of the game. There are no concussion spotters at Premier League matches, but team and league officials could watch a replay of the game later. That is why Dr. Stewart — an adviser to the Football Association — was dismayed that Oscar was in uniform three days later, violating the league's return-to-play guidelines that require at least six days of rest.

[On Twitter](#), he called the decision “completely unacceptable.” That led team officials to complain to local sports reporters that Dr. Stewart had spoken out of turn.

These incidents, Dr. Stewart said, can be deflating. But then he is reminded that he can make a bigger difference not in the professional ranks, where so much money and prestige are at stake, but at the amateur levels.

“I don't need to stand up in front of a conference of sports medicine and be personally criticized,” he said. “But then I'll get a call from Peter, who is enthused about something we've done with the leaflets, or some research collaborators who are keen to move forward, and I say, ‘Ah, for all the small minds that are critical and obviously trying to deny the inevitable signs, there are a whole bunch of people who are having a positive effect on it.’ ”

Some of the fruits of his work can be found about 90 minutes from Glasgow in Cupar, near St. Andrews. There, the Howe of Fife Rugby Club has gone further than what the Scotland protocols call for. It has introduced the King-Devick test, an exam given to players to help

trainers determine with more specificity whether an athlete is impaired and should be evaluated further by a neuro specialist.

On a chilly evening in late October, with teenagers practicing on a nearby field, [Lianne Brunton](#), the club's physical therapist, showed off the test on a tablet computer. At the start of the season, hundreds of youth and adult players are timed as they read aloud a series of numbers on several screens. If a player is suspected of having a concussion during a match, he or she is taken off and asked to [read the numbers again](#). Players who take longer are evaluated further.

"If I can say, 'Your brain is functioning six seconds slower,' they can relate to it," Ms. Brunton said. "If I can detect a concussion early, I can treat it properly."

Players and parents said the test was not intrusive, and they accepted the need for something that might prevent injuries. The issue is taken seriously enough that a local company agreed to cover the cost of the tablets and software license for the test.

"Now the awareness is definitely heightening," said Catriona Nimmo, whose two sons played rugby.

The test, which is widely used in the United States, is another example of how the grass-roots campaign to improve safety standards after Benjamin's death has changed attitudes.

"I'm awfully sorry the reason we met is because of Ben," Dr. Stewart said of his partnership with Mr. Robinson. "I get the feeling that some of what we are doing is actually changing and making a difference to people."