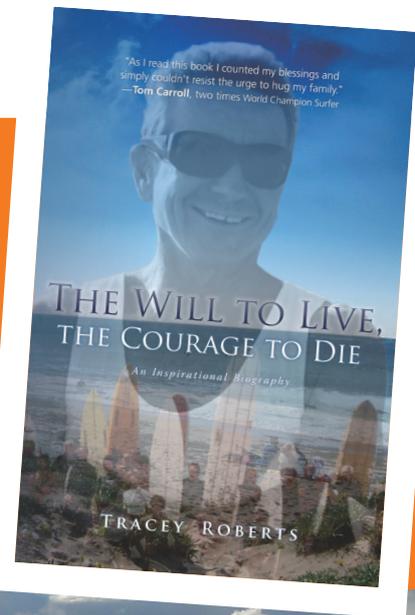


Strong and courageous



In 2010, Tracey Roberts found herself deeply involved, along with her family and the medical staff in the intensive care unit of the Royal North Shore Hospital, in caring for her uncle, Peter Bilsborough. A surfing accident had left Peter with severe spinal cord injuries and no chance of recovery. *The Will to Live, The Courage to Die* is a moving account of Peter's final months and Tracey's own response to that experience. Following is an extract from her book.

Most of us take something as simple as walking from A to B for granted. Unfortunately, others are not so lucky.

Many individuals suffer unimaginable forms of paralysis each year due to car accidents, sporting injuries and even disease. Whilst [my uncle] Peter's level of paralysis was as bad as it gets, other types of paralysis vary widely. The effects can differ

but some symptoms remain the same, such as loss of body temperature control, spasms and associated pain.

I'd like to highlight a couple of different spinal injury stories to convey just how fallible we as humans are and the difference between spinal injuries and spinal cord injuries.

Years before Peter's horrific accident, my first encounter of the life-altering effects of spinal cord damage is when my dear friend, Damon, sustained a serious back injury when he fell off the roof of a double storey house in 1999.

Severe hailstorms had swept through the southern and eastern suburbs of Sydney in April that year, smashing ▶

▶ the roofs of thousands of homes. Damon, who was a volunteer fire fighter at the time, was assisting in the recovery effort by fixing tarpaulins to damaged roofs. At approximately 10am that morning, a gust of wind caught underneath a tarpaulin knocking him off balance, resulting in him slipping down the wet roof and falling 8m and landing feet-first into the garden next door. The shock of the impact instantly travelled through his legs and spine, his lumbar 1 vertebra suffered a burst fracture with bone fragments going back into his spinal column.

Amazingly, Damon does not recall feeling any distinct pain when the accident first happened. His body probably went into immediate defensive mode to shield him from the onset of pain, but to onlookers and fellow fire fighters, there was no doubt he had sustained a serious injury. Fortunately, one of the volunteers on the scene had worked as a paramedic, so Damon received critical care immediately, potentially saving him from living the rest of his life as a paraplegic.

Damon remained conscious throughout the ordeal and initially thought he had just broken his leg because it was numb and he couldn't move it. Seven hours later, in St George Hospital, after a myriad of tests, x-rays and an MRI, doctors finally told him he had a spinal injury and was maybe facing lifelong paralysis.

The extent of his fracture was severe, but the damage to the spinal cord could not be ascertained at the time due to swelling. Doctors said it was intact and that the limited movement in his legs was a positive sign and recovery was possible. During a mammoth

11-hour operation, whereby surgeons entered through the side of Damon's torso, a T12 to L2 fusion was performed. After several months of rehabilitation, Damon was finally able to walk again. You would not necessarily pick him as a person suffering from incomplete paraplegia. Damon is able to walk because he still has his motor skills, but not his sensory skills. The only giveaway is that he has a slightly awkward gait as he walks primarily on his heels and takes short strides. While he has the ability to walk, the paraplegia has affected many of the muscles in his legs and lower torso, and this attributes to his gait because there is no ankle flexion control, particularly in his left foot. In short, this means he cannot exert pressure through his foot so he can't run or stand on his toes.

Recently, he had pins and screws put into the middle of the toes to relieve him from the pain of the "hammer toes" that had developed over recent years since his accident. Whilst Damon is exceptionally lucky to be able to walk at all, he is faced with a lifetime of associated complications that require continual management.

Damon's injury illustrates the complexity of bodily function of the spinal cord. Lumbar 1 is just above the cusp of what is regarded as true paraplegia – that is paralysis of legs and a lifetime of getting around in a wheelchair. Damon's form of incomplete paraplegia is called paraparesis, which is defined by weakness or partial paralysis in the lower limbs. Despite being able to control most muscles in his legs, Damon has distinct and significant neurological loss of some muscles and nerves around his buttocks, groin, back of legs and feet. You



can draw patches of areas where he has sensation and areas where he doesn't and you will end up with a pattern resembling your grandmother's quilt cover. Even the inability to control the sweat glands of his legs and feet result in compensatory sweating of his upper torso and head in order to regulate body temperature, which is eerily similar to Peter's own battle to maintain constant temperature.

Whilst Damon fiercely fights to maintain his autonomy and independence, he admits that the greatest loss is the loss of control of organs in the lower abdomen including sexual function, bowel and bladder control requiring him to use catheters daily. These are the first functions to be lost because they branch out of the spinal cord at the lowest level. Unbeknown to most, these are the symptoms shared by nearly everyone who has any form of paraplegia.

Even though Damon did not suffer a catastrophic injury like Peter and the repercussions fortunately for him were not drastically life-changing, the complexities of spinal cord injuries do exhibit themselves as common traits in both cases.

“As fate would have it, just two days later on Easter Sunday, Peter’s tragic accident occurred.”



Author Tracey Roberts, pictured, with her uncle Peter

Likewise, the potential for a cure from embryonic stem cells to help individuals like Damon fully recover from his paraparesis applies just as much as it could in helping a ventilated quadriplegic like Peter.

Just six months before Peter’s tragic accident, one of his own friends – former world champion surfer Rob Bain – broke his back, ribs and sustained serious head injuries whilst surfing at Off Rocks, a popular surfing spot at North Avalon Beach. Fortunately for Rob, his outcome was one of the better ones.

Rob had been out surfing, as he so often is, when he came off his board, hitting his head on submerged rocks, leaving him with a spinal fracture at C7. He snapped his first rib next to the site of the spinal fracture, four compressions of his thoracic spine T2, T4, T5 and T7 and full head laceration, requiring over 100 stitches. This rendered him incapable of returning to the surf for several months.

The only similarity to Pete’s story is that Rob was initially taken by ambulance to Mona Vale Hospital and later transferred to Royal North Shore Hospital. The difference was, one week after Rob’s accident, he

walked out of hospital, having to wear a neck and body brace for the next six months, whereas Peter died in hospital.

When Rob had finished wearing his body brace, he and his wife decided to head to the local Avalon Beach RSL Club. It was the evening of Good Friday and the band, Mental as Anything, was playing live at the club. Rob, still fragile and conscious of his recent injuries, decided to stand with his wife to one side of the room out of harm’s way. Shortly afterwards, they were joined by Peter and his girlfriend, Neire. They talked openly about Rob’s surfing accident and Pete expressed how pleased he was to see Rob safe and well after having sustained such horrific injuries to his back and head.

As fate would have it, just two days later on Easter Sunday, Peter’s tragic accident occurred. When Rob heard of Pete’s accident, he headed straight off to the hospital to visit Pete with good mate Steve Reynolds. Rob was still raw from his own experience and concerned with how to deal with Peter.

As Pete was still unable to talk, Rob could only lip-read his friend’s terrified words of how bad his

injuries were. Peter’s prognosis hit Rob terribly and he was emotionally guilt-ridden, distraught by the fact he had been able to walk again and Pete did not have the same fortuitous future. The distinct difference is Rob fortunately and astonishingly never suffered spinal cord damage.

When a person breaks their back and/or their neck, they have broken bone (vertebrae) and are sometimes able to have surgery to rectify the damage.

The spinal cord is different again because it is part of the nervous system that runs the length of the back from the base of the brain to a person’s waist. If you damage the spinal cord, the body is no longer able to receive messages or signals, almost like pulling the electrical cord out of your television. I have heard far too often people say, “Well, why didn’t Pete walk away? Lots of people suffer with broken backs and are okay.” The short answer is those who do walk again probably never suffered any long-term spinal cord damage. This is the fine line of the spine.

Extracted from The Will to Live, The Courage to Die by Tracey Roberts. Published through A & A Publishing and available for \$34.99 at all good book stores or via aampersanda.com.