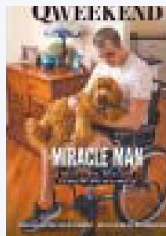


23 MAY, 2020

MIRACLE MAN NEVER SAY DIE

Courier Mail, Brisbane





23 MAY, 2020

MIRACLE MAN NEVER SAY DIE

Courier Mail, Brisbane

Page 2 of 5

Story FRANCES WHITING

NEVER SAY DIE

Brodie Ellis was at death's door, unknown and unconscious in a Hanoi hospital, when an online post led to a recovery that's testament to his indomitable spirit, devoted family and medical innovation

'Does anyone know this person?" A caption beside a passport photo and posted on Facebook by someone who did not know the young man in the stamp-sized image – but knew whoever he was, he needed urgent help.

High above Trang Thi St in Hanoi, the young man lay in Vietnam's Viet Duc hospital, oblivious to the crowds below; the street hawkers and tour buses, the ringing of the bike bells and the wailing of the ambulances.

It was Boxing Day 2018 and the young man, Brodie Ellis, then 24, lay broken on a hospital bed while his passport picture bounced off satellites, sped through fibre optics and along copper cables around the world, until someone recognised him on Facebook, and contacted his younger sister in Brisbane, Sabrina Ellis, then 22.

And so it began; the long journey from Vietnam to Bangkok to Brisbane's Princess Alexandra Hospital, and the equally long process of putting Ellis back together again.

Up until the accident, the former high school student at Cooparoo's Villanova College, Griffith University commerce student, football and music-mad Ellis had been living his dream, leaving Australia in March 2018 to travel and work his way through India, Thailand, Cambodia and Vietnam.

To save up for his big adventure, Ellis had been working two part-time jobs in Brisbane – at Ray White Concierge in Spring Hill in their insurance section, and at his local liquor store.

In mid 2018, Ellis arrived in Hanoi, but after a few months in the Vietnamese capital teaching English, he was involved in a motorbike accident, suffering catastrophic injuries.

At the Viet Duc hospital, he hovered between life and death, looking nothing like the smiling boy in the passport photo. His head was bloodied and swollen, his body twisted, his lower left leg smashed to pieces, with a gaping wound running the length of it.

In Cannon Hill, Brisbane, Brodie's mother, Bernie Ellis, now 55, received a call from her daughter Sabrina.

"She asked me if I had heard from Brodie, and said: 'Mum, I think something terrible has happened to him'.

"Sabrina told me about the Facebook post,



and while we never found out who posted Brodie's picture, we are so grateful to them because it allowed us to get to him quicker.

"We got in touch with the hospital and a nurse got on the phone and said: 'Your son is very sick, you need to come now. He has to have surgery now, you need to give consent to surgery on his brain now, do you consent? Do you consent?' And I understood very clearly that without this operation Brodie would not live," Bernie, a special-education teacher in Brisbane's western suburbs, recalls. "So I said I would give my consent, but I asked the nurse to first put the phone to Brodie's ear."

"He had a stage-four brain injury and was completely unconscious but I had to tell him I was there, that he was not lying in that hospital bed alone.

"I said: 'I love you Brodie, and I am coming, so you need to wait for me. You need to wait for me, Brodie'."

About a month later, Ellis woke up at the Princess Alexandra Hospital in Brisbane's inner-city Woolloongabba, with absolutely no recollection of what had happened to him.

Not the accident, nor the emergency craniotomy (removal of skull pieces to relieve the

REASON TO LIVE: Brodie Ellis and his sister Sabrina (above) the day he left for his holiday; Ellis at home with his mother Bernie Ellis and Sabrina's labradoodle Romy (right). **Main picture:** Mark Cranitch

“ I HAD TO TELL HIM I WAS THERE, THAT HE WAS NOT LYING IN THAT HOSPITAL BED ALONE

pressure from the brain swelling against it) nor the external fixation of his left leg performed in Vietnam; not his mother and stepfather, Eric Kennedy, a commercial plasterer, now 54, arriving by his bedside in Hanoi; not the emergency flight to Bangkok hospital and the second craniotomy there; not the many debridements (or clean outs) of his rapidly deteriorating leg wound, nor the flight home to Australia in January 2019.

It was probably just as well that Ellis had no memory of any of the challenges he faced on his long journey home – because it would prove to be only the beginning of the many more he would face on his arrival.

So it's also just as well, as one of his surgeons, Dr Michael Wagels says, that Ellis "is a truly remarkable young man".

"I haven't met too many like him", Wagels, 44, the deputy director of plastic and reconstructive surgery and staff specialist academic at the Princess Alexandra Hospital, says.

"He is one of the most awe-inspiring and courageous people I have known.

"And he's also," Wagels adds, "a pretty terrific person."

"Hey Brodie", "How you doing Brodie?", "Yo Brodie" – walking beside Ellis, 26, rolling along in his wheelchair at the Princess Alexandra Hospital, feels a little bit like being in a ticker-tape parade.

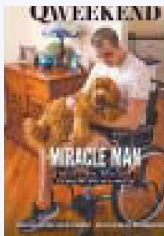
From passing nurses to the baristas he stops to chat with in the coffee lounge, everyone in this bustling, inner-city hospital seems to know him. That's because, as Ellis points out with a wry grin, "I've spent a fair amount of time here."

About 14 months, in fact, since he first woke up in his hospital bed in January 2019, and asked the nurses where he was.

"They told me the Princess Alexandra Hospital in Woolloongabba and I said, 'No way, that's in Australia', and then my stepdad Eric who was luckily there, told me really gently what had happened," Ellis recalls.

"He apparently said, 'Are you wondering what's going on Brodie?', and I said, 'Yes', and he said, 'Do you want me to tell you mate?', and I said yes to that too.

"It took a while to sink in – and then I was there for about a year after that." >

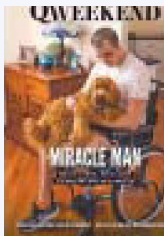


23 MAY, 2020

MIRACLE MAN NEVER SAY DIE

Courier Mail, Brisbane





23 MAY, 2020

MIRACLE MAN NEVER SAY DIE

Courier Mail, Brisbane

Page 4 of 5

Ellis smiles. "So, a solid effort, yeah, a strong effort. I don't do things 50 per cent."

Looking at Ellis – now an outpatient at the hospital after being allowed to return to his family home in March – grinning in his wheelchair, it's clear that Wagels is correct: this is a very courageous young man.

His body has endured much – from the top of his head where double implants now nestle beneath his skull, to the prosthetic that now usually sits where his leg once was, following an above-knee amputation.

First to those implants; both put in to fill the gaping holes in Ellis's head left by the previous craniotomies.

The procedure of placing an implant into a skull after a craniotomy is called a cranioplasty, and Ellis initially had a double one performed at the Princess Alexandra in May last year.

While one of those implants remains, the other became badly infected, something Ellis says "hurt a bit".

Bernie Ellis clarifies that the staph infection was, in fact, horrendously painful and nearly took her son's life.

It was Wagels who performed the replacement cranioplasty in December 2019 – the one that makes Ellis not just a walking miracle, but a medical one also.

Because beneath the right side of his skull is a 3D-printed implant which has the ability to encourage natural bone growth.

Wagels previously performed the world's first 3D-printed bone operation at the Princess Alexandra in 2017, wrapping a 3D model of a patient's tibia in biological tissue, and implanting it. That groundbreaking surgery allowed the patient's – Reuben Lichter, then 27 – own body to engineer new bone, and regrow his own tibia over many months.

What lies beneath Ellis's scalp is similar, and Wagels has high hopes that Ellis's own bone will completely regrow around the implant as it naturally disintegrates.

"3D printing has been around for decades," Wagels explains, "and the easiest way of looking at it is basically as additive manufacturing."

"So when you produce an object, you can either do it by having a big block of material you shave down to the correct shape, which is what is known as subtractive manufacturing, or you can put that material where you want it to be in layers to create the correct shape, which is the additive manufacturing, which is what we use for our implants."

"It can be made of many different materials, but in humans, we can only use materials that are biocompatible, and the special thing about Brodie's implant is that it is also completely absorbable, so it will disappear."

Wagels says that the original implant that became infected was biocompatible, but not absorbable. "It had to come out, absolutely. It's a foreign object and when an infection happens, it can't fight back."

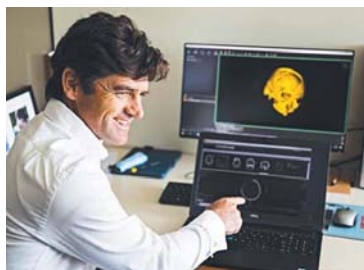
"There is no blood supply to it, so any infection just gets worse and worse as it did with Brodie, and he was in a very bad way indeed."

On December 19 last year Wagels and a team of about a dozen anaesthetists, registrars, neurological doctors, nurses, assistant surgeons, and technicians performed the gruelling, 11-hour, groundbreaking operation.

"The implant is made with full medical-grade polycaprolactone, known as PCL," Wagels says. "It's the same material we use for absorbable sutures, and it is laced with tricalcium phosphate, which makes it harder and behave more like bone."

Wagels describes the structure of the im-

“
A MOTHER'S LOVE IS
UNENDING ... YOU
REALLY KNOW IT WHEN
IT IS PUT TO THE TEST



AWE-INSPIRING: Brodie Ellis with surgeon Michael Wagels (above), who used 3D printing to make an implant for Ellis's skull; at home in Cannon Hill (above, right).
Pictures: Mark Cranitch

plant as similar to honeycomb, with many spaces inside it, which allow new blood vessels to grow, "bringing with them growth vessels which gradually turn, naturally, into bone".

The implant is covered with a flap of Ellis's own skin and beneath it, a patch of his own bone, both taken from his leg during the cranioplasty. That procedure has left Ellis with an impressive scar from his thigh to his knee – just another battle scar on this young man's body.

"So, the bone is sitting on the implant so that it grows into it and eventually replaces it, and the skin is there so we can see what is going on with it, if the blood is getting to it."

"We can tell if it's healthy by the colour of the skin."

The latest CT scan, taken eight weeks after the operation, shows bone forming both on the outside and the inside of the implant. It's the body, Wagels says, simply recognising broken bone that needs to be healed. Brodie Ellis's spirit, however, has never been broken.

Going under anaesthetic just before his above-knee amputation in August last year, Ellis had one question for Wagels.

"While I'm under, can you skin graft my tattoo onto my other foot please?"

Ellis had a tattoo of a box with a tick in it on his left foot ("people used to ask me, 'Why do you have a tattoo of a tick on your foot?', and I'd say, 'Because I ticked off getting a tattoo,'" Ellis chuckles).

In answer to the question, Wagels retorted, "Mate, I'm doing you a favour getting rid of it".



This is the sort of relationship these two have, banter born of hours spent together, in Ellis's case often in pain, in Wagels's case often in contemplation.

Questions like: What is the best course of action for Ellis's mental health? Which direction to take to give Ellis the most independence in future?

And for a good part of last year, whether or not to amputate his young charge's leg.

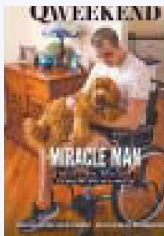
For Ellis, however, the decision was easy. "The leg was constant pain, I picked up an infection in hospital in Vietnam when they put in a metal pole to keep it straight, and unfortunately I caught a superbug which was resistant to antibiotics, and they just couldn't find one that worked."

"So it was just washing it out and washing it out, I think about 15 times, and to be honest, it was a bit painful."

"When I was recovering from that first double cranioplasty, I had a lot of time to think about it, and I spoke to a lot of doctors about it, and in the end ... I realised that I was never really going to be able to walk on it properly again anyway."

"They were going to put a hip-to-ankle straight nail through it, and the infection was either going to just sit there or spread around my body and maybe kill me anyway, so I just thought, nah, get rid of it."

"I told Dr Wagels what I wanted and he said, 'Brodie I want you to really think about this because it's forever and people are often initially really happy after an amputation, but in



23 MAY, 2020

MIRACLE MAN NEVER SAY DIE

Courier Mail, Brisbane

Page 5 of 5



“**BRODIE STILL BRINGS THE JOY WITH HIM, WHEREVER HE GOES. THE JOY REMAINS THE SAME**”



the long term people with reconstructed legs tend to be happier’.

“I thought about it and decided I would rather have a prosthetic I could bend than a permanently straightened leg. I am pretty determined, so I knew if I got a prosthetic I would do the work I needed to do to walk again one day. So I asked Dr Wagels to help make it happen for me.”

It’s a big decision, amputation, and Wagels had to lobby on Ellis and his family’s behalf somewhat, which he did, he said, out of respect for the young man he had come to know well.

“I just wanted – and want – the absolute best for Brodie, and one of the things I’ve learnt about him is his great need to run his own show. So when he said to me that he wanted it off, and these are my reasons, I listened.”

That operation, on August 1 last year, was also a success, and Ellis has spent many, many months in rehabilitation learning to use the prosthetic. He’s been working with the physiotherapist at the hospital’s Bunya Rehabilitation Clinic, and with his two carers, Preston White, 29, and Brian Towell, 45, to learn to walk and get back to normal life as soon as possible.

Ellis moved back into the family home earlier this year, and says that while he is “elated” to be out of hospital, returning to his old life has been more challenging than he imagined.

Because he has also lost all his vision in his right eye, and half of it in his left, he is not allowed to drive, the one thing Ellis says he struggles with. “I’m more upset about losing my driver’s licence than losing my leg, to be honest.

“Before I travelled, I was pretty independent. I lived in New Farm with one of my mates. I worked, I had a pretty good time, but now I need someone to cook eggs for me, to make a smoothie for me, and I can’t really go too far without help.”

Ellis straightens in his chair, and adds “yet”. It’s his trademark; this level of enthusiasm and commitment. He’s determined to go back to his job at Ray White, where his bosses have said they have a job waiting for him, he’s determined to go back to university and finish that commerce degree, and he’s determined to walk well again.

“I have to, my old job is up a flight of stairs, so I need to be able to walk up them to get to it.

“I need to be able to get there, to walk to the train and then to the bus. I just have to, there’s no option here for me.

“I have to become independent again, and failure is not an option.”

As Wagels says: “How could you not want to help a young man like Brodie achieve his aims?”

“When I first met Brodie, going back to all the leg troubles he was having with the constant infections, he was clearly someone who was in a bind, through no fault of his own.

“The thing is we don’t often hear stories like Brodie’s, but they are more common than you think.

“There are all sorts of people in these awkward positions who need help and the sort of help that can only be delivered over a long period of time.

“When I met Brodie I knew straightaway

that I was going to get to know him pretty well. When you come to know Brodie, you come to know that he is going to give it his all, whatever is thrown at him.

“Now that he is home, I will continue to catch up with Brodie because in something like this, there are two outcomes, one is the scientific and one is the human. I know we’ve achieved the human one because he sends me pictures of himself out eating curry with friends, so tick, and the scientific one continues, in that we need to decide things like, how long do we wait now between scans?”

“But even if we weren’t doing that I’d want to keep seeing him anyway, because I’m happy to say he’s become my friend.”

And so, Brodie Ellis is home, back with his mother Bernie, stepfather Eric, and his sister Sabrina, and things are both the same and different, beyond the front door of their Cannon Hill home. There’s another story that lives behind that door, and it’s found in all the flights to foreign countries, and hours spent sitting beside hospital beds, and waiting outside intensive care units.

It’s found in the hundreds of trips to hospital beds and rehabilitation units, and in the thousands of hours spent talking to Ellis even after being told he could not hear the words, much less comprehend them.

It’s the story of Bernie Ellis, and a mother’s love for her son. From the moment she asked that nurse to put the phone to Ellis’s ear as he lay in that hospital bed, Bernie has been determined to achieve the best possible outcomes for her boy.

As a special-education teacher, she knew it was important to keep talking to him, to “keep his neurons firing”, to read to him and ask him questions – “What do you think that was about?”, “Where is this story set?”, “What time of day did the story take place?”.

Brodie Ellis has an acquired brain injury that will continue to challenge him, but it is testament to his mother how far he has come from that battered boy in the hospital bed in Vietnam, who no many expected to live.

“Bernie [Ellis has long called his mother by her first name; it is both simultaneously cheeky and loving] never let up,” he says.

“Every operation, every decision, she was there for me, fighting for me.

“One of the doctors at the hospital said to me: ‘You are going to have to buy your mum the best Mother’s Day present, because she held us accountable all the way’.”

Ellis smiles at his mother.

“She’s all right, Bernie.”

As for Bernie Ellis, she says that as much as she is credited with teaching her son on his long journey back to where he is today, he has taught her much more.

“Well, the first thing he has taught me is that a mother’s love is unending.

“I mean you know it as a mother, but you really know it when it is put to the test.

“And he has taught me to be patient and to calm down when I get worked up about something that’s happened to him.

“He’ll look at me from his hospital bed with all the tubes and bandages on him and he’ll say, ‘Hey Bernie, calm down’.

“So I calm down,” she smiles.

“Things have changed for our family, it doesn’t look how it used to, but the one thing that has never changed is that Brodie still brings the joy with him, wherever he goes.

“He might get there a bit differently, but the joy remains the same.” ■

FULL OF LIFE:
(Clockwise from top left) Brodie Ellis with his family: mother Bernie, stepfather Eric Kennedy and sister Sabrina before the accident; Ellis teaching children in Hanoi; in India on his trip overseas.