

## Medical Doctor Makes Full Recovery from Brain Injury After Motorcycle Accident

Dr Sonja and Dr Danie Steenkamp

**This story is about Sonja and Danie Steenkamp and a traumatic event that took place 7 years ago. The story and video were originally used as a case study at a BabyGym and Mind Moves Conference but has inspired so many that we have decided to share it publically. When one understands how the Brain, the Central Nervous System and the Peripheral Nervous System develop, it is clear to see why BabyGym<sup>®</sup> and Mind Moves<sup>®</sup> have a very distinct work order, we mimic the body's natural order of development and when one suffers from a brain injury, one will follow the exact same order to recover.**

**B**oth Sonja and Danie started their studies in Clinical Technology at the University of Bloemfontein, and after many years Danie was eventually selected to further his studies in Medicine in 2000, this was a dream come true. He started his studies in 2011 and it was also the year that Sonja and Danie got married. Danie graduated in 2005, and during 2006 and 2007 Danie did his internship in Bloemfontein, but in 2008 they were relocated to further his internship at a government hospital in Kimberly, where they still reside today.

On 11 June 2008 Sonja received a phone call, Danie was involved in a serious motorcycle accident and she needed to make her way to the hospital. On arrival the medics were resuscitating Danie, and thankfully they were successful. They however warned that the next 48 hours would be critical and that they did not believe Danie would survive. They advised that Sonja contact the family so that they could gather at the hospital and say their goodbyes. His injuries included severe brain injury, he was in a deep coma, he had bad fractures to his right hip and right upper leg, rib fractures and numerous cuts and bruises. That same evening Danie received emergency surgery to his hip and leg due to the severity of the fractures and internal bleeding, he also needed 5 units of blood, but the upside was he did not need brain surgery.



Danie survived the first 48 hours and thereafter remained in a deep coma for 2 to 3 weeks.

The CT and MRI scans showed Danie had numerous defused point bleeds throughout the brain but that most severe ones were located on the right frontal and the right parietal lobes; there were many small bleeds but fortunately no big bleeds. When Sonja met with the Neurosurgeon for the first time he said about Danie: “his brain looks like scrambled eggs”, there was no differentiation between the white and grey matter in the brain. Physical impairments during the coma included paralysis to the left side of his body due to the brain injury and not the neck, he was also immobilised due to the hip fracture on his right. If you ask Danie what he recalls from the first 3 weeks he says absolutely nothing. During his stay in the hospital he received no rehab therapy due to the bad prognosis, the staff barely thought he would survive never mind recover. Doctors said: “he will not recover, not be able to return to work, and will most likely not be able to look after himself ever again.”



*At the same time Danie’s wife, Sonja had been a BabyGym Instructor for 1 year. At that stage she had never met Dr Melodie de Jager, the Founder of BabyGym, personally but on hearing the news about Danie, Melodie phoned Sonja to offer support. When Danie and Sonja retell the story they both say that the telephone conversation between Melodie and Sonja played a huge role in Danie’s recovery. Melodie’s advice was to think of Danie as a newborn baby and to perform BabyGym on him exactly as you would with a newborn. Sonja says: “Melodie said something that was very important to me, she said ‘don’t think about it, just do it’, and being task orientated I started BabyGym with Danie 3 days after the accident”.*

Sonja started to massage Danie’s entire body daily, it took a lot of time to do this but seeing that she sat by his side for most of the day it gave her something to do. The doctors and hospital personnel thought she was crazy for doing it but in hindsight Sonja is thankful that massaging Danie gave her something constructive to do, she says at times she even thought she might be benefitting more from it than Danie. After the massage, Sonja would do midline crossing exercises, she would take Danie’s right arm and place it on his bent left leg, due to the fractures in Danie’s right leg Sonja wasn’t able to bend the right leg but she crossed his left arm over to his right hip.

While his left side was paralysed she got into the habit of standing on his left side, talking and touching the left side of his body so that his brain wouldn't ignore (and lose awareness of) that side of the body. To increase awareness of his left side Sonja used different textures and temperatures to stimulate his skin. She did a lot of calf stretches and regularly bent the ankle at 90 degrees so that the foot wouldn't drop.

Almost 3 weeks later, Danie woke from the coma for the first time. He slept for most part of the day and when he was awake he didn't recognise his wife, he also couldn't remember that he was married or that he had an 18 month old child; this was (understandably so) very traumatising to Sonja. Danie slipped in and out of the coma quite regularly throughout that week.

Now that Danie was awake doctors requested that speech therapy be started so that Danie could relearn to swallow and to eat, but for some reason he didn't seem too like the speech therapist and pretended to sleep during all his speech therapy sessions. In the end the speech therapist wasn't able to help Danie chew or swallow anything, and here the BabyGym exercises really helped Sonja. In the evenings when most people left the hospital Sonja did a lot of stimulation in and around the mouth and then gave him a dummy to suck on, and as soon as she put the dummy inside his mouth he sucked it! She got a lot of rejection from the hospital staff about that because they said she was dehumanising an adult, but Melodie's words stuck by her, "think of Danie as a newborn". After birth sucking or feeding is a baby's first milestone and that was Sonja's first milestone for Danie too. Looking back, Danie is thankful that he was in a coma for the first part of his rehabilitation because he doesn't believe he would have allowed Sonja to put a dummy in his mouth, even though he now knows that those were the exact right exercises for him at the time.

To share a bit of humour, one of the stages of traumatic brain injury is improper behaviour, and as Danie didn't recognise Sonja at first he didn't take kindly to her touching him and performing the exercises. He said it was painful and that he would hit her if she continued with it, so Sonja agreed that Danie could hit her, but with the condition that it had to be with his left arm. (The left arm was paralysed at the time!)

After a few repetitions of sucking the dummy properly Sonja progressed to next phase of sucking, she filled a baby bottle with water and gave it to Danie to drink from and he was able to suck and swallow the water from the bottle. Thereafter, the next phase was introduced: Sonja put juice in a sports bottle (with a nozzle) and kept it in the freezer so that it became 'slush puppy'. Sucking from the sports bottle required a lot of effort but in the end Danie was able to suck and swallow the 'slush puppy'. This confirmed to Sonja that Melodie was right; progress was made when one followed the natural sequence of the baby milestones.

At this stage the doctors wanted Danie to sit upright more often, to help the lungs and ease ventilation, but due to his paralysis and poor head control he fell over quite often. To improve this Sonja did a lot of neck exercises and placed a pillow under his shoulder blades so that he had to use his neck muscles and lift his neck, it no longer just rested against the pillow.

3 weeks after the accident Sonja started to enquire about transferring Danie to Pasteur Rehabilitation Hospital in Bloemfontein, but his doctors advised against it because they didn't believe Danie would recover and be self-sufficient again. Sonja however insisted that medics from Pasteur Hospital evaluate Danie to determine if it would be a wise move. The medics from Pasteur Hospital came all the way from Bloemfontein to assess Danie in Kimberley and they concluded that they would like to attempt rehabilitation with Danie.



The rehabilitation system at Pasteur Hospital was a team effort consisting of occupational therapists, physiotherapists, speech therapists, psychologists, social workers and more. They explained that the first 6 weeks of rehabilitation are the most critical and an indication of how well a patient will recover. Since Danie did not receive any therapy during the first 3 weeks their prognoses wasn't as great as what it could have been if the rehab had started in hospital. Later on Sonja shared with them that she had performed BabyGym on Danie during those first 3 weeks and they were very pleased to hear that! They also confirmed that the set of exercises she had done were spot on, Pasteur Hospital also follows the sequence of natural milestone development so BabyGym and the rehab programme complimented each other superbly. The order of development milestones are as follow: **sucking, neck control, rolling, sitting, crawling, walking with an aid and then unaided walking**. When Sonja heard this she suddenly realised that all the 'silly' BabyGym exercises that she had been criticized about were not so silly at all. Danie was in Pasteur Hospital for 8 weeks and during that time his recovery was slow but very steady.

### **At the end of his 8 week programme Danie walked out of the hospital without an aid!**

Danie was granted 6 months sick leave to recuperate at home and in February 2009 Danie returned to work as a Medical Doctor. Nobody thought it possible, but it happened. Back at work Danie worked under supervision but after 6 months his supervisors were happy that his long term memory was intact, he was able to make sound decisions, and treat his patients effectively. Danie and Sonja were extremely grateful that his recovery went so well and that he was able to continue his work in Medicine as it had been a lifelong dream. They believe that his recovery is a miracle and that God had also guided them to the right people during a very critical point in time; Sonja names Dr Melodie de Jager as one of the "right people" and Danie quickly adds "and so also my wife, the good student" .

Sonja provided the following information about Danie's genetic dominant profile for the benefit and interest of Mind Moves Instructors: Before the accident he was right brain dominant, top brain dominant and front brain dominant. The injury to the brain happened in all 3 these parts of Danie's brain, so all 3 parts of his dominant profile were severely affected. Right hand and left foot dominant; remember he was paralysed on the left side of his body, so his reflexes were quite active on the left side of the body. Left eye, and right ear dominant; the ear didn't suffer any damage but vision in his left eye weakened and when he reads he has a lot of fall-outs to the left side of the page. Melodie went to visit Danie and Sonja 1 year after the accident. She tested Danie's genetic profile and found that his genetic profile remained unchanged but that his functional profile had changed quite a lot. Danie was now functioning with a left brain, back brain and under brain dominance- the exact opposite from his genetic dominant profile. His brain had to learn to adapt, and functioning from different parts of his brain (more regularly) made him more emotional and receptive (introverted). Can you imagine how ones behaviour changes due to such a big change in one's functional profile? Knowing this brought a lot of insight and understanding for both Danie and Sonja about their relationship and the way Danie had seemed to 'change' as a result of the accident. He also used his right eye more often to focus and he used his right leg more because the muscle tone in his left leg had weakened. Due to the fractures in his hip and leg his right leg was about 3cm shorter than the left leg which causes him to walk with a slight limp.

Today, Sonja and Danie say: "We still hope for further recovery. We have learnt a lot about ourselves and have also been able to help a lot of people in Kimberley with similar brain injuries. We do not have a lot of therapists in Kimberley who are willing to work with people with brain injuries and it is a great privilege for us to be able to assist them." Danie adds: "I believe that God has performed a miracle with saving my life, part of the miracle was bringing Dr Melodie de Jager and BabyGym into my life." He lovingly looks to his wife and continues: "Thank you to my wife, a very big part of my recovery is due to my wonderful wife who was willing to sit by my side and work with me.

She did what she thought was right at the time, ignoring all the criticism, and in the end it was the best thing that she could have done”.

Danie loves being back at work, he works at the Internal Medicine Clinic, and closely works with the cardiologists at the cardiac department. He receives good feedback from colleagues and patients and is excited about the future. Danie recommends the book *The Brain that changes itself*, a wonderful read on the plasticity of the brain and encourages to never lose hope- the brain is able to develop, change and adapt and that makes recovery possible.

Sonja and Danie share a special journey and relationship, at the time of the accident they had one son, Waldo aged 18 months, and since then they have had 3 more children, Cara, and twins Milan and Morné.

It is touching to see that both Sonja and Danie have a great sense of humour, when you watch the recording you will hear Danie jokingly say: “My bad English is not due to the brain injury, it has always been that way”.

Enjoy watching them share their story:



Our 4 beautiful children 20 July 2014  
Kara(4), Morné(6m), Waldo(7), Milan(6m)  
Waldo was 18 months when Danie was in  
the accident.

