

The Day My Life Changed Forever

The reason: my right hand was caught in a hydraulic press, crushing my hand and wrist, and the emergency room doctor wanted to amputate my hand below the wrist.

My wife calls and I tell her that I will be leaving in 5 minutes. I was walking through the shop and saw a hydraulic press which needed to be set up for our second shift employees to stamp out parts. I was only going to make a quick adjustment. I turned off the safety switches and then my life was changed forever.

It wasn't anyone's fault but mine. I turned off the safety switches, then turned the machine from Automatic into Manual mode.

On August 25, 2010, @ 4:38 p.m., it happened. I had my right hand in the machine and my left hand operating the controls on a touch screen monitor. I went to press the "UP" button on the screen. I must have looked back at my right hand in the machine before I touched the screen, because my left hand drifted downward and hit the "DOWN" button. With 6000 psi of force the machine came down on my fingers, severing the index finger in two places and crushing the other ones. I couldn't get my hand free from the machine. I'm in real trouble now, I am in serious pain. I reached back to hit the "UP" button, but it came down. I forgot that the machine was programmed finish its cycle. So, again with 6000 psi of force, with my fingers caught in the machine, the machine came down on my hand and wrist, crushing it instantly (I still can hear all of the bones breaking). With the machine still in the "DOWN" position on my hand I had to push the "UP" button to get the machine off my hand. Then the excitement began. My hand looked like a grape which had been stepped on. Everything had squirted out the sides. A large gash was opened up on the palm of the hand. The right index finger severed in two places. The wrist and hand completely detached (I really don't know what kept it from falling off). I can't even describe the amount of pain that I was in. But I was conscious the whole time. The machine operator who saw everything yelled for the shop foreman. He immediately came and wrapped a tourniquet around my arm to stop the bleeding from squirting everywhere. They called 911 and then the ambulance showed up. Instantly, seeing how severe the accident was, they gave me a shot of morphine. They loaded me up to take me to the nearest hospital. Still in severe pain, they give me another shot of morphine. It still was not helping with the pain. I'm taken into the emergency room. There doctors and nurses went to work on my hand. First, they hooked me up to an IV, giving me Dilaudid pain medication which finally killed the pain. I started feeling real good (Ha ha). Then I told my wife to take some pictures of my hand with my camera phone because I knew that nobody would believe how bad the hand looked. They stabilized the wrist and hand and took x-rays. The ER doctor came to my bed and said, "We are going to have to amputate your hand below the wrist." I immediately said "NO YOU'RE NOT. I can see my hand and I don't want it cut off." He explained to me how severe the hand and wrist had been crushed. I still said "NO, we are not cutting this hand off." He said, "There is a doctor in Bristol, TN, who works on hands. We will call him and send your

x-rays to him. If he accepts you within the next two hours we will send you there. But if he doesn't, we will have to amputate immediately.”

Would my hand be amputated below the wrist? Or would it be saved?

Within 15 minutes, Dr. Morgan P. Lorio, from Bristol, TN, called back and accepted the challenge of saving my hand. I was then loaded back up in the ambulance and sent to Bristol Regional Medical Center. This is where I first met Dr. Lorio. By this time it was close to midnight. He said, “This is my hand now. You must do exactly what I say. This will be the only chance you have in saving the hand.” I said, “It's your hand, doc, and I will do exactly as you tell me to do.” I got out of surgery around 4:00 a.m. with my hand still intact but not out of the woods. I am immediately assigned to Kim Masker, MSOTR/L, CHT (Certified Hand Therapist). First I am required to spend an hour a day in the hyperbaric chamber for the next 30 days to make sure that I had enough oxygen supply in my blood and to have adequate blood flow in the hand. Everything in the hand had been damaged. Second, go to the hand center and see Kim everyday. She was to monitor the hand and change the bandages. She was the doctor's “eyes.” She was to notify him of any changes in the hand and how I was responding to treatment. But besides that she kept reassuring me that everything was being done to save the finger and hand. I fed off of her confidence in her ability and knowledge to do her job.

After those 30 days the hand looked like it could be saved. Now the real work began. I had another three surgeries and countless hours in the Hand Center. Kim started by peeling off the outer layer of my scabs to allow the 1” wide gash in my palm to close up without doing a skin graft. This was impressive. Instead of having a huge scar, I only have one long scar. She worked and stimulated the fingers and hand every session. The fingers had been “dead” (had not moved) for several months. But Kim never gave up. Then one day, I was at home and my fingers moved. I couldn't believe it. The excitement was over whelming. I could move my fingers for the first time since the accident. We are only talking about a little movement at that time. I showed Kim at my next visit and she was as excited as I was. Remember, she has invested a lot of time in the recovery of my hand. Kim gave me some new exercises to do for my fingers. Now I have almost full strength and movement in three of my fingers, partial movement in the index finger that had been severed, and some movement in my thumb. The thumb doesn't have a motor (tendon) to power it. My next and final surgery will correct this issue.

I did have to make some changes in my life. I was right-handed in everything that I did. Even though I have my right hand it was changed in shape. It's flat...think of a Ping-Pong paddle on the end of your hand. The fingers don't come together in the center anymore. My thumb can only reach the middle and index fingers. I had to learn to write and eat left-handed. Even though the left hand is now my dominant hand, my right hand is still very useful. It's as if I had been always left handed. I can pick up heavy objects using both hands. The fingers on the right hand are still able to grip. But if you were to glance at my hand, you can't tell that there is anything wrong with it.

Without Dr. Morgan P. Lorio, M.D., and Kim Masker, MSOTR/L, CHT, my hand would have been amputated. Words can't describe the gratitude for what they have done. Because of them, I have my HAND!!!!

Forever Grateful,

Rocky Renfro

Rocky Wayne Renfro
Injury and Therapy Information

Injury: Severe machine crush.

- Anterior perilunate carpus dislocation
- Near complete amputation of IF with P1 and P2 fractures, severely compromised circulation
- Ulnar styloid avulsion fracture
- Probable pisiform and lunate fractures
- Extensive soft tissue trauma
- Compartment syndrome
- Assumed neuropraxic nerve injuries at minimum

Surgeries:

- 8/26/10
 - I & D
 - CTR
 - Evacuated median nerve intraneural hematoma
 - Debrided devitalized and avulsed muscle
 - IF radial digital nerve repair
 - 1st web wound closure
 - IF intramedullary pin to initially stabilize
 - Perilunate dislocation reduced
 - Scaphoid was devoid of all attachments due to injury
 - Wrist jack used as a “stirrup” to stabilize the wrist
 - Started hyperbaric treatments
- 10/2/10
 - Removal of Wrist Jack
 - Scaphoid excision
 - Carpal fusion
 - 3rd metacarpal ORIF
 - DRUJ pinning
- 10/11/10
 - Screw fixation IF distal phalanx
 - Trapezoid resection with APL sling to FCR
- 10/22/10
 - IF P1 ORIF
 - Wrist manipulation under anesthesia, then casted
- 5/4/11
 - IF FDS opponensplasty transfer to thumb APB via FCU tendon pulley sling
 - IF PIP joint arthrodesis
- Planned
 - Muscle transfer to facilitate wrist extension

Therapy:

- Extensive wound care
- Extensive splinting, including static, dynamic, static-progressive, serial casting, functional

- Modalities, including hi-volt galvanic stimulation, NMES, TENS, US, moist heat
- A/AA/PROM
- External bone stimulator
- Joint mobilization, scar mobilization, soft tissue mobilization
- Kinesiotaping
- Desensitization
- CPM