



## David's Story

*A pediatric patient is struck as he crosses a 55-mph road to get on a school bus. Could well-planned bus routes help prevent such injuries?*

*See MLive's April 13th, 2015 guest column "School bus routes must be designed to save lives, not fuel."*

The morning of March 20th, 2015 started much like any other routine day for the Newman Family. Jim and Angie busily prepared their son David (12) and older sister Natalie (14) for the arrival of the school bus. While attending to their younger children Lauren (9) and Jack (7) inside, Natalie and David bid good-bye to the family and made their way to the end of the driveway. At approximately 0640, it was still dark when the bus approached and stopped on the two-lane county road with a posted with a speed limit of 55 mph.

As the children walked across the first lane of traffic, Natalie led and David reportedly seemed to hesitate as he saw headlights approaching but then proceeded across the road. That was when the unthinkable happened and David was struck by a vehicle as he neared the front end of the bus. Natalie recalled feeling "a gush of air" and turned to see that David was no longer behind her. Simultaneously she heard screams from the bus driver and ran to the back of the bus where she found David lying on the pavement. Angie and Jim were alerted by the sounds of the chaos ensuing at the end of their driveway and immediately came to David's side where they found him unresponsive and lying in a fetal-like position on his left side. It was estimated that he was thrown about 45-50 feet from the impact.

Shortly after Angie confirmed that 911 had been called, she was approached by Steve Hinkley, a Calhoun County Detective and Newman family friend, who happened upon the accident on his way to work. Detective Hinkley recognized the severity of the situation and made the decision to call the dispatch center advising of the need for air medical transport. Considering this was uncharacteristic for the activation process, dispatch contacted the responding

EMS unit from Marshall Area Fire Fighters Ambulance Authority who supported his request. West Michigan Air Care received the call and was placed on standby at 0655. At this point on scene, the bus was moved away from where David was laying, rather than moving him and risking further injury.

When EMS arrived, paramedics Scott Hankinson and Ashley Berkheiser assessed David and confirmed the need to transfer David to a trauma center via air. The request became a "go flight" for Air Care at 0701. David remained unresponsive during this time as he was placed in full spinal immobilization precautions. He was also found to have an open left tibia/fibula fracture and a dressing was placed for control of bleeding. Once in the ambulance, two large bore IV lines were initiated and oxygen was applied. Air Care arrived at the designated landing zone (LZ) at 0726 with the crew consisting of flight nurses Sara Sturgeon and Dawn Johnston and pilot Stephen Hostetler. EMS report to the medical crew revealed that David had shallow respirations with periods of apnea and hypoxia, and had vomited once. His jaw was clenched and his pupils were 3mm and reactive bilaterally. David's parents were updated that his inability to protect his airway was the highest treatment priority and preparations were made for rapid sequence induction (RSI) and intubation prior to transfer. His respirations were assisted with a bag-valve mask while equipment was prepped. After receiving Ketamine for sedation/analgesia and Succinylcholine as a neuromuscular blockade, David was successfully intubated. He was given subsequent doses of Ketamine and transferred to the aircraft where he was placed on a ventilator. Due to David's suspected head injury he was a high risk for seizures and was monitored closely for that as well as any changes in his pupillary assessment that could indicate further progression of his condition.

Air Care departed from the scene at 0755 en route to Bronson Methodist Hospital for pediatric and trauma specialty care. David's heart rate was consistently elevated with a trend of decreasing blood pressure readings

indicating the likelihood of hypovolemia from internal injuries. Sedation and pain medications were continued and a unit of packed red blood cells was started prior to landing at Bronson at 0810.

David's care was assumed by the trauma team led by Dr. Jon Walsh. Radiology



*David spent weeks recovering in Bronson's pediatric ICU.*

scans were obtained showing the extent of David's injuries. Along with his left leg fracture, he had suffered multiple skull fractures, a neck fracture at the level of C4-C5, a traumatic brain injury (TBI) with a subdural hematoma and cerebral contusions, an adrenal gland hematoma and laceration, a pelvic fracture, splenic and renal lacerations and a collapsed left lung with pulmonary contusion.

David was admitted to the Pediatric ICU under the care of pediatric intensivist Dr. Martin Alswang. An intracranial pressure (ICP) monitor was placed and for the first several days the medical team's goal was to keep David calm and reduce all stimulation to help his severe brain injury heal. He was placed on a Propofol drip for sedation, a Fentanyl drip for pain, and seizure prophylaxis medication. But David's ICP numbers were occasionally

*(continued on page 2)*



Corn shucks in the air. Tommy Talbot of Colon Fire Department recently harvested these photos of the Air Care helicopter landing on scene in a cornfield.

**David's Story** *(continued on page 1)*

creeping up to over 40 mmHg with the upper limit of normal usually being 20 mmHg. He was placed on a medication to induce paralysis giving his brain a better chance of healing. On Day 6 of his stay, he was taken to surgery for repair of his leg fracture. On Days 8 and 9 of hospitalization his medication was reduced and the paralytic was removed to allow him to begin to wake up. He was breathing over the ventilator and, despite developing pneumonia, he continued to improve until he was extubated on March 29th, though still requiring some ventilatory support with CPAP for a few days.



David, feeling better and looking good in a recent school photo.

David struggled with confusion at first as he began to recover and it was unclear if he was suffering visual hallucinations, medication withdrawal, or simply the effects of his brain injury. Physical, occupational, and speech therapy were started and David made great strides toward discharge from Bronson. A gastric tube was placed due to difficulty with eating and swallowing, and on April 7th, David was discharged at Mary Free Bed (MFB) to continue his rehabilitation.

Once at MFB it was determined that David had acute traumatic blindness. Thankfully, within one week his eyesight began to return, first as double vision then slowly improving from there. His vision is still not back to baseline and is an issue that inhibits him today. However, with hard work on David's part, and a dedicated rehab team at MFB, David was able to return home on May 21st.

The hardest part for the Newman family throughout David's ordeal was being apart from each other. Angie was often the one who stayed with David throughout his treatment while Jim tended to the other children and kept the home functioning. While at MFB, David's siblings would come up and stay weekends and were allowed to participate in his therapy. Due to the emotional toll the accident had taken on their close family, the time together was welcomed as they all began to heal together.

Today David attends most of his normal classes as an 8th grader at Marshall Middle School. He has a full time aide with him during his classes in the morning and he attends therapy in the afternoon. He has some residual impulsive behavior related to his TBI and still struggles with his vision deficit which has prompted some minor home modifications, including the installation of a shower bar and door alarms at home for his safety.

David's family is thankful. Angie states, "I was told [MFB] could work miracles, and they were right! When he arrived there he couldn't see or walk and barely stay awake due to the pain meds he was still receiving. He is doing well considering where he started." Angie also shared her family's thanks and appreciation for everyone who was involved with caring for David. We wish him well in his progress!

**David's Air Medical Team:**

- » Sara Sturgeon, Flight Nurse
- » Dawn Johnston, Flight Nurse
- » Steve Hostetler, Pilot
- » Terry Tratt, Communications Specialist



By Sara Sturgeon, BSN, CFRN, EMT-P  
Flight Nurse  
West Michigan Air Care



Scene photo courtesy of Tommy Talbot, Colon Fire Department

## It's Not Just A Job

*By Kelly Dodson, friend and former patient of Air Care*

Wow! What a sight to see in the sky: the Air Care helicopter, commonly known as the air ambulance. Our home is under one of the flight paths the Air Care helicopter takes when coming from the north and heading south to Three Rivers Health. As awesome as this flying ambulance is to see, it is a reminder of just how bittersweet life can be. What a spectacular flying machine it is, but sometimes someone needs medical attention with only minutes to spare.

When a medical emergency is happening, most of the time it takes a combination

of advances in medicine, people, and machines. I've been in and around the medical field since 1982, not as an employee, but as a patient. I believe that it depends on the situation whether the good lord sends us one angel or sends us multiple angels to help keep us alive. In my case, the multiple angels that were sent to help me are ALL my HEROES.

The credit for saving my life started with my daughter. On the morning of Aug. 3, 2015, my adult daughter Amanda found me in bed, unresponsive and barely breathing. She said she tried to stay calm and she called the Three Rivers EMS for help. They arrived three or four minutes later, assessed the situation and took me to Three Rivers Health. From there they called the Air Care team who flew down to Three Rivers to pick me up and take me to Bronson Trauma Center. My flight crew consisted of two nurses (both named Paul), an ER Doctor, and the pilot. I was unconscious for a couple of days, so unfortunately I wasn't able to see all of the angels that the good lord sent my way to save my life, but the kindness my daughter told me about later – about how kind everyone was to her – means the world to me. Everyone along the way was extremely kind to my daughter.

As I'm sure many of you know, it usually takes teams of people to save one person, one life at a time. My daughter helped save me out of the deep love and compassion she has for me as her Mom (and vice-versa) and all the health care professionals helped save me out of a deep love and compassion in their souls for helping people in need of medical attention. There is something very special about people that have chosen to

work in the medical field. Whether you are in EMS, a flight nurse, a helicopter pilot, lab tech, doctor, nurse, etc., you've got more in you that makes your line of work "not just a job." I believe those people that work in the medical field in some capacity have a very special place in their hearts that holds an exceptional kind of compassion for all human beings. I also feel that each one of them were put on this earth with a strong "calling" to help the sick get well and like in my situation, give it their all to help bring back to life those that are on the brink of death. I believe that people in the medical field just have that extra spark that, when lit, gives them the ability to go above and beyond what's called for to save a life, one at a time.

It is with high regard that I send a heartfelt "thank you" from me and my family to all the many people that will always have a special place in my heart as my "angel heroes." This would start with my daughter, then the Three Rivers EMS crew, everyone working in the Three Rivers Health ER, the Air Care flight crew, and all the many, many teams of people at Bronson Hospital Trauma Care, ICU, and the many teams of nurses and hospitalists helping people on the medical floors. Arrangements have been made for me to meet with you, the Air Care crew, and be able to check out all the state-of-the-art medical equipment the Air Care helicopter is outfitted with. The good lord sent many, many angels to help me survive on Aug. 3, 2015 (and after) and each and every one of you will always be my hero!

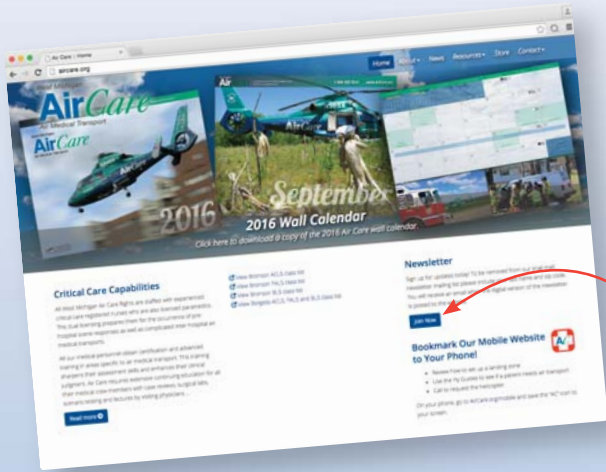
Sincerely,  
Kelly Dodson  
Three Rivers, MI



*After we received her letter, Kelly Dodson of Three Rivers returned in October to meet the flight crew that cared for her in August! From left to right: flight nurse Paul Mazurek, Kelly's daughter Amanda, flight nurse Paul Rigby, Kelly Dodson, and Pilot Brian Vanderberg.*

# NEW! Landing Zone Safety Training Video

Now Air Care's Landing Zone class is available anytime, anywhere! Go to our website at [AirCare.org](http://AirCare.org). Under "Resources", click on "LZ Training". In 20 minutes, you'll watch a full LZ refresher. You can even complete an "open book" quiz during the video to turn in to your training officer.



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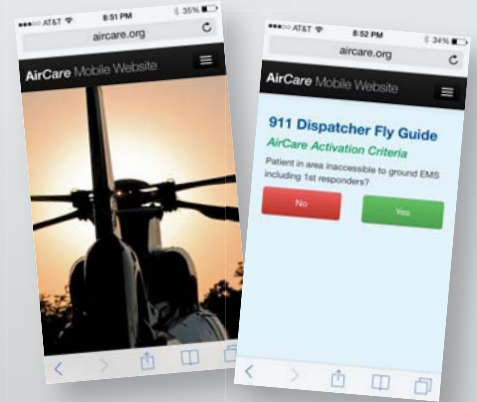
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- » Review how to set up a landing zone.
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