The VEU

The Vascular & Endovascular Update

Spring 2018

Survivor of Severed Artery has Message of Hope for Bears' Zach Miller

Eugene Tanquilut, D.O., performed same surgery on Tinley Park woman

It was a flip-flop that did her in. As Rachel Draper was walking out of a restaurant on May 7, 2016, her flip-flop folded under her foot. She felt herself falling and overcorrected, trying to land on her backside instead of on her face.

"It was a one in a million chance," she said. Just like Bear's tight end Zach Miller, Draper landed at an awkward angle, suffered a posterior dislocation of her left kneecap and severed her artery in that instant.

"I really couldn't feel anything in that moment. I just got a surge of adrenalin," Draper said. An Emergency Room nurse who was leaving the building at the same time saw the accident and watched Draper's knee suddenly swell to extreme proportions. "I just wanted to go home, but this nurse insisted they call an ambulance. They called 911 and I went straight to Silver Cross."

In the ER, orthopedic surgeon Dr. George Verghese popped her kneecap back into place. "All of a sudden, I couldn't feel my leg," said Draper. "The whole room went into a panic when I said that."

Silver Cross Hospital staff

had already notified Dr. Eugene Tanquilut of Vascular Specialists of Draper's injury and he had made his way to the hospital immediately. Tanquilut says, "I had to consider that Rachel's artery was compromised, therefore, I thought it was prudent to perform an angiogram."

ER staff quickly brought in a Doppler ultrasound machine, used to detect abnormalities in blood flow. "They couldn't find a pulse,"

said Draper.

"And the
whole room
panicked
again. I was
moved into
surgery
immediately.

"All of a sudden, I couldn't feel my leg... the whole room went into a panic.."

I really have no idea what happened until I woke up in ICU with a hugely swollen leg."

Tanquilut knows exactly what happened. "A posterior dislocation of the knee can compromise the popliteal artery, running behind your knee. If the knee is put back into place and the pulse returns as normal, close monitoring is done. Unfortunately, when Rachel's knee was put back into its anatomically

correct position, we couldn't find a pulse. When I arrived, her leg was already pale and cold and I couldn't hear any blood flow."

Tanquilut quickly performed an angiogram, making a small incision in Draper's groin. He found no blood flow below her knee. He made an incision on the inside of her knee, looking for the popliteal artery.

"The artery was completely traumatized, cut right in half. Because it had spasmed, she wasn't bleeding out, but both ends of the artery had retracted, making it difficult to find the two ends. Once he isolated the two ends, Dr. Tanquilut felt it was best to bypass.

Tanquilut then removed the saphenous vein from Draper's left leg and performed an arterial bypass - exactly how doctors treated Zach Miller on October 30 of this year.

Draper then developed acute compartment syndrome in her leg, a sudden swelling of the muscle which can result in permanent damage to muscles and nerves. Tanquilut performed a fasciotomy, making two long incisions in Draper's leg to open both the skin and the underlying fascia to relieve the pressure on her muscles. The muscles were allowed to swell outward, instead of crushing the new bypass and damaging nerves.

When Rachel woke up in ICU, she found her leg swelled to about 4 times its normal size and placed in an external fixator. The rod-like device was attached to her leg with screws that reach into the bone, holding her leg stable and aligned, protecting the arterial bypass and the soft tissue while healing.

"My calf was so swollen it was like twice the size of my thigh, but I didn't really realize the severity of the situation until they changed my bandages. Even then, I saw the incisions, but it didn't seem real. Then when I was by myself later, it all sunk in. I could easily have lost my leg," said Draper.

Every day, Tanquilut checked her leg and the blood flow in the new bypass. Every day, he would tell Draper, "Today, you get to keep this leg." Each day, for three weeks while Draper recovered in ICU, Tanquilut assured her that, for that day, her leg was viable.

Physical therapy started almost immediately. Draper remembers when Silver Cross therapist Anthony came into her room and told her she was going to stand up that day. "I told him "are you insane?", she laughs. "I told him there was no way that was going to happen. He told me "you've got this, you can do this, the faster you get up and get moving, the better



you're going to heal." He explained how I needed to get on my feet, get the circulation moving normally and strengthen my muscle memory."

Draper did stand up that day, and each day moved forward step by little step. "I would cry whenever Anthony came in the room because PT hurt so badly. But I stood up. I moved to the chair. I got to the bathroom. I made progress." She used crutches in the main, as a walker interfered with the fixator.

She was transferred to a regular room after 3 weeks and spent two weeks performing additional therapy and further recovering. "I had such a great team of nurses. The nursing staff at Silver Cross is amazing. The ICU nurses were funny and upbeat and always positive - and so generous. I'm now Facebook friends with all of them," she laughed.

She left the hospital with the external fixator still in place. It was removed weeks later in an outpatient procedure performed by orthopedic surgeon Dr. Tom Antkowiak.

At-home nurses attended Draper's wounds daily for months. "Dr. Matthew Endara, a plastic surgeon, helped with the wound closure. The lateral wound, on the outside of my leg, closed just fine. The medial wound, on the inside, needed a wound VAC to close it, because they were concerned about the risk of infection."

Vacuum-assisted closure of a



wound, or wound VAC, removes air pressure and fluids from around a wound, cleaning it and helping to pull it closed. Draper used the wound VAC 24/7 for about six months. "The human body amazes me," said Draper. "The body is so good at self-healing, just growing new layers of skin over the hole."

Draper also required surgery to extend her Achilles tendon because her foot had been immobilized for such a length of time. She began outpatient physical therapy at the Athletico facility near her Tinley Park home. "Patrick (Becker) saw me coming in, with really no muscle mass anymore and just said, "okay, let's get started," Draper said.

Three or four days each week, for two hours each day, Becker worked with Draper to help her regain full mobility. "At first, Patrick would put a band on my foot and I could barely get it to lift. I could hardly squeeze my left thigh." As she gained strength, her therapy was cut to 2 days a week, but the workout became more difficult, including at-home exercises.

Because the initial fall had also torn Draper's anterior cruciate ligament (ACL) and her posterior cruciate ligament (PCL), Antkowiak repaired those in March 2017. "I needed to regain the muscle mass lost from the first surgery to be able to recover from the ACL and PCL surgery, to do the PT properly," Draper says.

Draper saw Tanquilut in his Vascular Specialists Olympia



Fields office every month after her discharge for a Doppler ultrasound to detect any problems in the bypass or in her blood flow. Her appointments then were scheduled for every three months, and now, for the rest of her life, Draper will see Tanquilut every six months.

Tanquilut explains that an arterial bypass will most likely fail at some point. "We must monitor Rachel by ultrasound consistently to identify any problems. With the Doppler, we can see any issues, which will tell us if we need a more precise test with contrast. If we find problems quickly, before the bypass fails, we can get in there and repair them to save Rachel's leg."

If the bypass does occlude, Draper's leg "is toast," she said cheerfully. "I know it sound crazy for me to be so upbeat about this, but no one understands how really blessed and lucky I am to still have my leg. Every day for three weeks, it was a miracle that I got to keep my leg. I was so close to losing it, but I didn't. Every day that I keep it is amazing. I just thank God every day that Dr. T was the doctor on call."

"Dr. T is the reason I still have my leg. I owe him everything. He is a miracle worker," said Draper. "Dr. T is not just an incredible surgeon, he is an incredible person. He is kind and genuinely compassionate and he always listens to you, really listens. He asks, "how are you doing?" at every appointment, and he actually



waits for you to answer, listens to your answers and then actually responds to what you say."

Draper is off the crutches and working toward her New Year goal, which is to jog, to put an impact on her leg. "Patrick and Dr. T are sticking with me for the long run. I'm not running a 5K anytime soon, but I will get there." Her latest accomplishment is returning to work as, incredibly, a server.

"Last week, I worked a 7-hour day and was on my feet nearly the whole time. My boss asked me how I was feeling and I said, "I'm amazing! This is so exciting! Look at me go!" I couldn't get over myself", she laughed.

Draper realized quickly that Zach Miller's injury mirrored her own. "I heard about his injury, I heard about the surgery and I thought - I need to write Zach a letter and make sure he gets it."

Draper didn't have anyone in a similar situation to talk to when she was in the darkest, most painful times and she feels that Miller could use her encouragement, because she knows what he's experiencing.

"I want to give Zach hope, because he's going to come back from this. I was in his shoes and look at me now. I play soccer with my son, I chase after my daughter. I am clearly so lucky and I know he will get there too. I just want him to know that he will really be alright."



The *Popliteal Artery*branches off from the femoral
artery and is located deep
within the knee, in the back

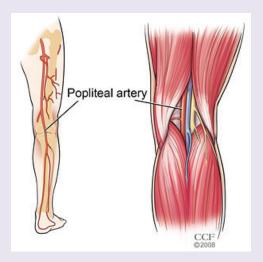
within the knee, in the back of the leg. It is the primary supplier of oxygen-rich blood to the knee and the lower leg.

Can We Save This Leg?

• Time

A severed artery must be repaired quickly to avoid amputation. Blood flow must be restored within 6 hours to give a patient any chance on retaining their leg.

• Overall Patient Health Age, general health and the presence of atherosclerosis can also impact the ability to save a patient's leg.



Join LEA-UP, Lower Extremity Amputation and Ulcer Prevention!

Contact Julie Rivera jrivera@vascspecialists.org or text to 219-314-1644 to be notified of date, time and location.

LEA-UP meets quarterly to learn from experts in the fields of podiatry, infectious disease, primary care, nephrology, vascular surgery and more.

Dr. Eugene Tanquilut - Vascular Specialists

Award-winning and recognized as a Vitals Top 10 Doctor and a Patient's Choice Doctor, **Dr. Eugene Tanquilut** is board-certified in both vascular and endovascular surgery. He earned Vascular and Endovascular Fellowships at Cleveland Clinic.

Dr. Tanquilut and the physicians at Vascular Specialists have gained exceptional knowledge and experience through advanced education and decades of practice. They have participated in numerous research studies, have published papers and are widely-requested speakers

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Vascular Specialists is a complete vascular practice. Best of all, Dr. Tanquilut and our medical professionals approach each patient as a member of the family, with empathy, altruism and honesty.

Vascular Specialists has convenient offices in Olympia Fields, New Lenox, Orland Park and Chicago, treating patients at Advocate South Suburban Hospital, Advocate Trinity Hospital, Franciscan Health Olympia Fields, Franciscan Health Chicago Heights and Silver Cross Hospital.

Want to learn more about avoiding amputations and saving your patients' limbs and quality of life?

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Inside: Popliteal Artery and patient Rachel Draper

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