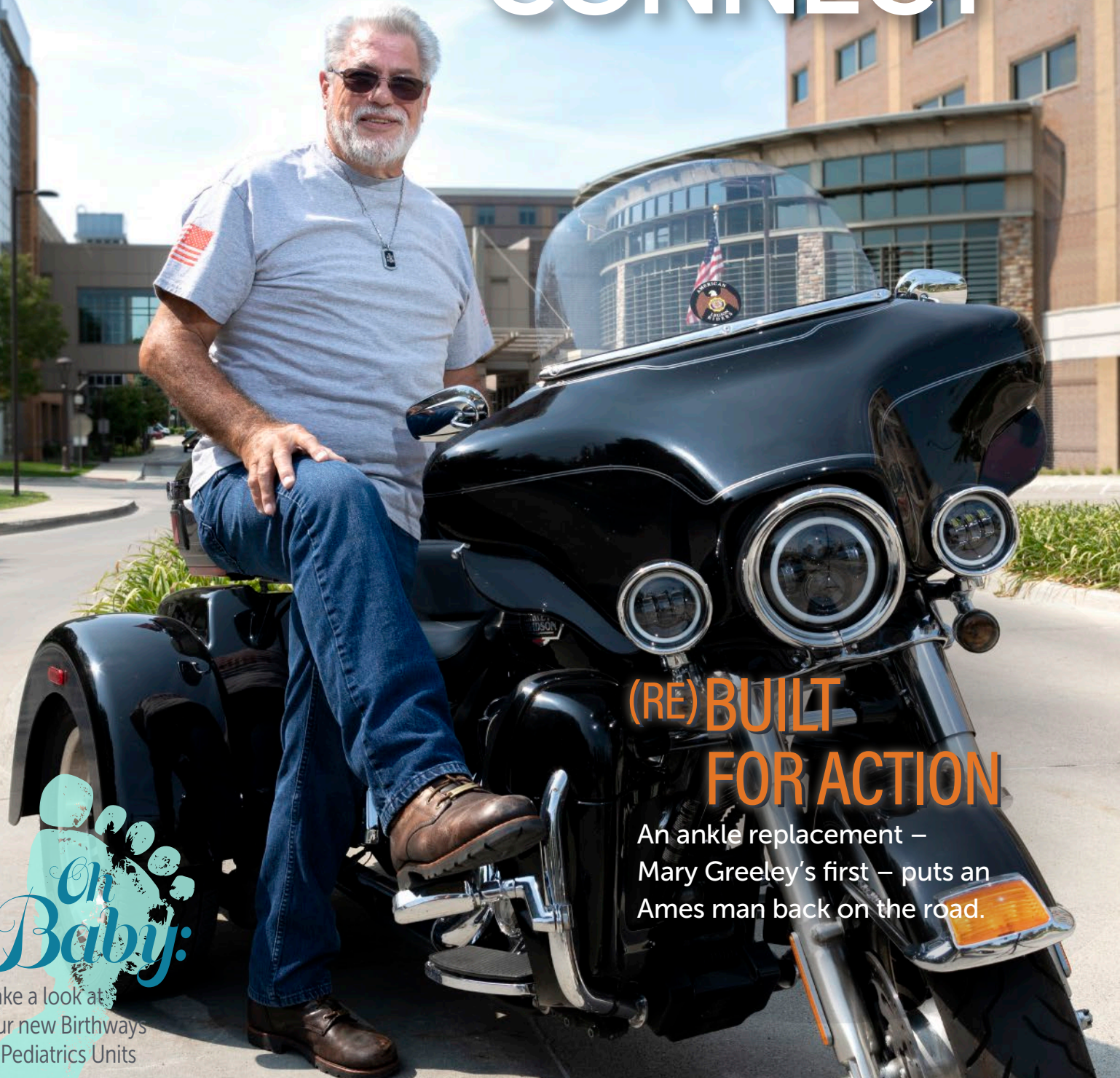




Health CONNECT



(RE)BUILT FOR ACTION

An ankle replacement –
Mary Greeley's first – puts an
Ames man back on the road.

*On
Baby:*

Take a look at
our new Birthways
& Pediatrics Units

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Calendar

COVID-19 has resulted in many Mary Greeley-sponsored meetings and events being cancelled, postponed or delivered remotely. For status on an event, please visit our website, www.mgmc.org/classes.

PRESIDENT'S LETTER

By **Brian Dieter**
Mary Greeley President and CEO

Getting Better

At the height of the COVID-19 pandemic, there were days when we were treating more than 30 patients suffering from virus symptoms. That was last fall. This fall, when another COVID wave hit, we saw the numbers inch precariously close to that level again. Since May of 2020, we have had approximately 1,560 COVID patient encounters, including in the Emergency Department and outpatient and inpatient visits. Nearly 90 percent of these people were unvaccinated, a statistic we began collecting in January 2021. We've had 67 people die from COVID-19 at the hospital. All but one was unvaccinated, and that one had received the first of two doses.




These are collective statistics, of course. Every patient is an individual, and Mary Greeley staff—from nurses to respiratory therapists, environmental services workers to physicians—will carry the stories of COVID-19 patients with them for the rest of their lives. They won't forget the young firefighter who died in our ICU from COVID. His body was escorted to a local funeral home by a convoy of fire trucks and police vehicles. They won't forget the rugged gentleman who thought COVID-19 was a hoax until it almost killed him. He's now an advocate for vaccination and has successfully convinced friends and family to get the shot. They won't forget the pregnant woman who, after an emergency C-section, was admitted to our ICU with severe COVID symptoms, fighting for her life. She survived, but it was days before she could be reunited with her beautiful baby boy.

Increasing COVID-19 numbers, while troubling, were not the biggest part of the story over the past several months. Mary Greeley, like so many Iowa hospitals, was incredibly busy treating patients with a range of conditions. Also, like many Iowa hospitals, we strained our staff to provide the best possible care for the people who came through our doors. I am immensely proud of the work our staff has done during this challenging time. They've put in long hours and faced stressful situations, but their commitment has never wavered. They are awesome. I'm also proud to say that as of November 1, about 89 percent of our staff have been vaccinated for COVID-19.

As we approach 2022, there is reason for optimism. More people are choosing to be vaccinated and more people are now eligible for vaccination.

Amid all this, Mary Greeley opened a new obstetrics and pediatrics unit. It's a bright place, filled with smiles, hope, and new life.



Visit us on the internet
Learn more about Mary Greeley's programs and services at www.mgmc.org.

Contact us
Individuals are encouraged to contact Mary Greeley Medical Center if they have any concerns about patient care and safety in the hospital that have not been addressed. If the concern continues, individuals may contact the Iowa Department of Inspections and Appeals, 321 E. 12th St., Des Moines, IA 53119. You may also call 515-281-7102 or e-mail webmaster@dia.iowa.gov.

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CONNECT WITH US!    

Q&A COVID: WHAT'S NEXT?

Dr. Dan Fulton, McFarland Clinic infectious disease specialist, has been our go-to expert during the COVID-19 pandemic. In town hall meetings and one-on-one conversations, his thoughtfully delivered insights have helped many navigate the challenges of the past 18 months. We turn to him once again for an update on current COVID issues, including vaccines for kids.



Dr. Dan Fulton

Kids aged 5 to 11 can now get the vaccine. What is your advice for parents who are considering getting their youngsters vaccinated for COVID-19?

I would encourage parents to seek out trusted, reliable sources. Talk to your pediatrician. Get information from places like Mayo Clinic, the American Pediatric Association, or the CDC. Your personal doctor is responsible to you and has a real relationship with you. This isn't some random person in the middle of nowhere who put a video on the Internet. Your health and wellness is your doctor's primary interest, and they have to look you in the eye when giving advice.

This is an exciting new step in our fight against COVID. It is going to play a significant role in the health of our kids, as well as from a public health standpoint. Anyone can get COVID, but vaccinating kids is one more way to break another link in that chain. Every break can stop the spread of future disease.

COVID is the eighth leading cause of death for this age group, and it is preventable. While kids generally don't get that sick from COVID-19, hundreds have died in the last year and a half.

As a parent, I don't want my kids to get sick, and if one gets it the rest likely will. I don't want my 10-year-old to bring it home to my 1-year-old twins. The vaccines have been shown to be very safe. Side effects are rare and, when they do happen, are typically mild. Companies have tried to mitigate side effects by decreasing the pediatric vaccine dose. When we're training the immune system, we want to give just enough that it responds to the invader but doesn't overreact.

So, your kids will be getting the vaccine?

My 12-year-old already has, and my 10-year-old and 6-year-old will. They are excited because they know this is their opportunity to join this effort and help get us to where we aren't talking about and worrying about COVID all the time. My 10-year-old cheered when she heard the news.

You've done several well-received town halls during the course of the pandemic. More recently, you've been talking one-on-one with people who haven't gotten vaccinated yet. What has that experience been like and what are you learning?

There is a diverse group of people who so far have chosen not to be vaccinated. We need to extend people some grace. I have been listening to their concerns and sharing perspectives that are meaningful.

If you can establish a mutual and caring relationship, and take the opportunity to really hear each other, you can break down a lot of initial barriers that can exist in this social media age. It becomes easier to connect on a real level.

Concerns I've heard primarily revolve around the unknown and uncertainty. People want to be assured that there won't be unexpected consequences to being vaccinated.

If a person hasn't had someone impacted by COVID or work in healthcare, they might not have seen the terrible things we have over the past year and a half. Sharing those experiences and listening helps.

So where are we now with COVID-19? Mary Greeley has seen a reduction in cases over the past few weeks. Are we out of the woods?

We have a second wave of COVID that started in late summer. While we had fewer patients than the previous wave, I wouldn't say this recent wave wasn't as bad. Our ICU patients were here longer and many of them were younger and should have been at lower risk, but not all of them have survived. That's been incredibly hard for everyone.

The higher percentage of vaccinated people helps reduce risk in the community. This will impact the frequency and size of any waves we see in the future. We will have some amount of COVID that circulates like any other respiratory disease and there may be some seasonality to it.

We can't let our guard down. There is some uncertainty about what winter will bring. We might get through it without another wave, but there is a risk of a wave with RSV or influenza on top of it.

Some people will say I've had enough and just want to live my life. I get that, but I hope they have been vaccinated and that the people around them have as well. The most tragic thing of all is we've had the opportunity to prevent the infection with the vaccine. We are responsible to each other to create an ecosystem that is safe for all of us.

Special Delivery

BY STEVE SULLIVAN

Mary Greeley Opens New Obstetrics & Pediatrics Unit.

Sarah Potter took one of the most unforgettable rides of her life on Tuesday, September 21.

Early that morning, she lay in a patient bed while being transported to Mary Greeley's new Birthways Unit on the third floor of the west tower from the old unit on the fourth floor of the south tower. Later that afternoon, she delivered a beautiful baby girl named Penny.

Penny Potter now has the special honor of being the first baby born on the new Birthways.

"It's a fun story that we'll be able to tell her when she's older," said Sarah. "Some hospital staff members came in to congratulate us on being the first birth in the new unit, and for us to see how excited everyone was with us about our baby was so fun."

Moving day was a busy one on the new Birthways Unit, which features Labor/Delivery/Recovery/Postpartum (LDRP) rooms that can also serve as Neonatal Intensive Care Units (NICU) if needed. A team of hospital staff moved patients, equipment, and supplies into the new unit, all while delivering outstanding care. One mom gave birth to twins early that morning while still on the old unit. She and her newborns were eventually moved to a room on the new Birthways especially designed to take care of twins. There were three deliveries on the new unit that first day.

"Our experience in the new unit was fantastic," said Sarah. "The room was modern and bright, and a nicer room made for a nicer stay. It was also a giant relief to know that with the tech in the new rooms, even if Penny would've required a little extra care—which thankfully she didn't—she would've been able to still stay in our room to receive that care. Knowing that everything could be taken care of right there in our room was reassuring. I want to add,

though, that a nice room isn't the only reason our stay was great—we loved all our nurses and how caring everyone was! Birthways staff is the best."

INVESTMENT

Birthways and NICU share a floor on the west tower with Pediatrics, which also moved to the third floor of the west tower. While several area hospitals have discontinued obstetrics care, Mary Greeley is making a significant investment in it. The new space enables Birthways and NICU to provide a supportive and advanced model of care.

"Keeping moms and babies together has long been described as best practice; however, most organizations throughout the United States move newborns requiring a higher level of care to a different area of the hospital," said Amy Dagestad, director of Maternal Child Services at Mary Greeley. "We took the concepts of rooming in and couplet care and defined a new way to care for moms and babies. Regardless of the level of care mom or baby requires, they remain together. We anticipate that this innovative care model will increase patient satisfaction, decrease length of stay, and improve employee and provider experience."

Birthways, NICU, and Pediatrics being on the same floor will also contribute to coordinated care, as pediatric hospitalists treat patients in each of these areas.

"Having Birthways and Pediatrics intricately designed, connected, and located on the same floor allows pediatricians and nurses to be near pediatric and neonatal patients 24 hours a day, 7 days a week, 365 days a year to provide high acuity care whenever it is needed," said Dr. Laura Hufford, McFarland Clinic pediatric hospitalist.



Three families welcomed newborns on the opening day of our new Birthways unit.

From top to bottom:

- Sarah & Jake Potter and their daughter
- Brisia Bell & Chase Martin and their son
- Alicia & Adam Heun and their son

October was one for the "baby books" at Mary Greeley. It was the first full month in our new Birthways unit and it tied for the most births we've had in one month.

October 2021

132

TOTAL BIRTHS

69

BOYS

63

GIRLS

BABY WEIGHT

10 LBS
.1 OZ

BIGGEST

3 LBS
14 OZ

SMALLEST

BUSIEST DAY

■■■■■
OCTOBER
8

1

 SET OF TWINS



Here are details on the new units:

BIRTHWAYS & NICU

The main feature of the unit is the 23 Labor/Delivery/Recovery/Postpartum (LDRP) rooms that have been specially designed so that babies requiring a higher level of care in our Neonatal Intensive Care Unit (NICU) stay in the same room with family. The NICU was in a separate area in the previous location.

Having LDRP rooms with NICU capabilities is a relatively new model of care. There are only a few hospitals doing this in the United States.

This model focuses on keeping families and their new babies together, with no separation for babies that require a higher level of care. This is intended to decrease anxiety about having a NICU baby, improve communication with the care team, and provide better continuity of care.

Here are other key features of the Birthways/NICU Unit:

- Color-changing light features for each room, with color choice selected by the patient
- Larger rooms, with expanded space for families, including a sleeper couch and rocker/recliner
- Two larger suites to accommodate twins
- 20 rooms with whirlpool tubs and 3, in accordance with ADA regulations, with walk-in showers
- A private bereavement suite and waiting room for families who have lost a baby, as well as staff trained to work with those families

- Two large operating rooms with UV lighting that can sanitize the room when not in use
- An advanced security system to protect newborns and patients up to 12 months old during their stay in Birthways or Pediatrics
- Three private rooms for outpatient services
- A newborn treatment room
- Lactation Services office with two outpatient rooms to support breastfeeding
- Large family lounge located near the entrance

ADDITIONAL DETAILS

- The unit is staffed by board-certified obstetricians, pediatricians, pediatric hospitalists, midwives, and nurses.
- Mary Greeley is the only hospital in central Iowa to earn the prestigious Baby-Friendly designation from Baby-Friendly, USA. We also have received the Blue Distinction® Center+ for Maternity Care designation, which recognizes high-quality, affordable maternity care.

PEDIATRICS

Main features of the unit include the following:

- There are eight private rooms. Each room has a magnetic white board where the patient can draw or people can write notes of support.
- There is an on-unit treatment room used for minor medical procedures. The room is equipped with an iPad to keep the patient occupied during the procedure.
- A playroom with games and toys for a variety of ages is available.
- Each room is “animal” themed and features art by Ames watercolorist Jorga Kemp. When a young patient leaves the unit, they will receive a card depicting the animal that corresponds with the room where they were treated.
- There are color-changing light features for each room, with color choice selected by the patient.

“EVERY DETAIL IN THE NEW PEDIATRIC UNIT IS DESIGNED TO PROVIDE HIGH-QUALITY CARE IN AN ENVIRONMENT SPECIFICALLY CREATED FOR CHILDREN. THE CHILDREN CAN CHOOSE THE COLOR OF THE LIGHTING IN THEIR ROOM AND DRAW ON THE CABINETS, WHICH ARE COVERED IN WHITE BOARD. AGE-SPECIFIC TOYS AND SUPPLIES ARE READILY AVAILABLE. THE GOAL IS TO MAKE THEM AS COMFORTABLE AS POSSIBLE WHILE THEY RECOVER.”

– DR. LAURA HUFFORD,
PEDIATRIC HOSPITALIST



Carly Cosens, RN, and Stacy Peterson, RN, Maternal Child Services manager, are coordinators for bereavement services on Mary Greeley's new Birthways unit.



BIRTHWAYS FEATURES BEREAVEMENT SUITE, SUPPORT

By Carly Cosens, RN, Birthways Bereavement Coordinator

As a young girl, I was awakened to the harsh reality of loss through the stillbirth of my youngest brother, Colin. When I arrived at the hospital to visit my mother following her delivery, I walked into her hospital suite to find her and my dad snuggling their full-term baby boy. Tears streamed down their faces as they greeted their baby and clung to the priceless memories they were making during their brief time with Colin.

As a bereavement counselor at Mary Greeley's Birthways Unit, I often think back to this moment and to Colin. That memory forever instilled a yearning in my heart to care for families experiencing this kind of loss.

The moment you first lay eyes on your new baby is a moment to remember forever. This moment, for some, is filled with tears of heartbreak rather than joy as they prepare to say both hello and goodbye to their baby. Being discharged from a birthing unit without your baby is unspeakably painful. Mary Greeley continues its promise to provide the best care possible to their patients in our Birthways Unit by creating a safe space for healing from such a devastating loss.

The new unit features a bereavement-specific labor suite, which includes a state-of-the-art Murphy bed, made available to patients following their delivery. The labor suite is also located away from other laboring mothers to avoid the sounds and distractions associated with birth. This update to the bereavement labor room helps eliminate those triggering memories and emotions that families cope with during this difficult time.

In addition to the bereavement-specific labor room, a family room is also located on the new unit. This room allows visitors to gather in a private setting to visit, collect thoughts, and participate in caring acts, such as bathing baby and collecting footprints and wisps of hair.

Stacy Peterson, Maternal Child Services manager, and I have attended conferences and gone through special training to help people through the experience of miscarriage and stillbirth.

Our efforts will never completely erase the pain of a miscarriage or stillbirth, but our goal is to ease that pain and provide comfort at a time when it is needed most.

BABY GIFTS

Birthways project attracts much-appreciated support from donors.

You expect to hear “oohs” and “aahs” on a maternity unit, but it’s kind of special when you hear them before any babies are there yet.

Such was the case when a team from Variety—the Children’s Charity got a sneak preview of Mary Greeley’s new Birthways and Pediatrics Units, which opened in late September. Variety, which has a long history of supporting family care initiatives at Mary Greeley, provided significant philanthropic support for the Birthways project. The team was impressed with the details and scope of the new unit.

“Mary Greeley is taking an innovative new approach to care that puts the family first with this project,” says Sheri McMichael, executive director of Variety—The Children’s Charity. “The project aligns perfectly with our mission, and it was an easy decision for us to be a part of it.”

The Mary Greeley Foundation’s goal is to raise \$1.5 million in support for the \$15 million capital project from individuals, granting organizations, and corporate supporters. In addition to Variety, significant gifts were made by the Mary Greeley Auxiliary, Renewable Energy Group, Matt and Erica Campbell, Dr. Joan Grabenstetter, and Richard and Joan Stark. Many others have contributed, including those who have delivered children at Birthways or have had children or grandchildren cared for in Pediatrics.

“Mary Greeley had a vision for an innovative obstetrics unit that would share a floor with our pediatrics unit, effectively bringing our maternal child services together in the same space,” said Melissa McGarry, executive director of the Mary Greeley Foundation. “Gifts from our community have played a vital role in making this vision a reality. We thank everyone who has contributed.”



The Mary Greeley Foundation would like to thank and recognize these business partners who provide annual support for the highest priorities of the medical center.



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To learn more about supporting the priorities of Mary Greeley, contact the Mary Greeley Foundation at 515- 239-2147 or visit www.mgmc.org/foundation.

Had a child at Mary Greeley and interested in contributing to the Birthways project in their honor?

Visit www.mgmc.org/foundation/family-care-center for details.

After successful ankle replacement surgery, Michael Deacon is back on his Harley and dancing with his wife.



▶ VIDEO

Want to hear more from Dr. Cain and Michael Deacon about this history-making surgery at Mary Greeley? Visit www.mgmc.org/ankle

FULL METAL

Specialized surgery—a first at Mary Greeley—rejuvenates a Story City man’s active lifestyle.

ANKLE

BY STEPHANIE MARSAU

Michael Deacon loves to ride his Harley, work outdoors, and dance with his wife.

Here’s the thing, though. You need two good, strong ankles to do those activities safely and gracefully. Deacon only had one. At least he did until the bad ankle was replaced. You read that right. Replaced.

Deacon was the first patient at Mary Greeley Medical Center to receive a complete ankle replacement. The complex operation has him back on the bike, the ladder, and the dance floor.

FALL

Deacon worked in the printing industry before recently retiring, and he now helps out at the Salvation Army. His proudest accomplishment is being elected as the National Commander of the Sons of the American Legion in 2004–2005. The son of an Army commander, he’s been involved in helping veterans for more than half his life through the American Legion. He currently serves as the chaplain for The American Legion Riders, Chapter #37, in Ames.

A tough, engaging, and generous man, Deacon’s life took a turn when in 2009 he fell from a tree at his Ames home. He was trimming back dead limbs when he fell about 10 feet and suffered a significant tibial fracture that required surgery.

“As a consequence of Michael’s injury, he developed severe post-traumatic osteoarthritis,” recalls Dr. David Cain, a McFarland Clinic podiatrist who specializes in foot and ankle surgery. “This was severely limiting the range of motion in his ankle, and it was also causing stiffness and significant pain” (see sidebar).

Deacon had been seeing Dr. Charles Gilarski, also a McFarland Clinic podiatrist, for cortisone injections. “Those helped a little, but they weren’t a permanent fix,” said Deacon.

Gilarski recommended that Deacon meet with Cain, who was doing training on ankle replacement surgery and on the lookout for a candidate who would benefit from it.

No stranger to joint replacements, Deacon had already had both of his knees done. When he first met with Cain in October 2020, he quickly realized an ankle replacement would be a different kind of joint surgery.

“Both of my knee replacements had gone really well,” said Deacon. “With those, they want you up and walking around right away. Dr. Cain explained that the ankle is a bit different though—and that I would be nonweight bearing for eight weeks.”

Deacon was given other options. He could continue the cortisone injections, which were moderately helpful. He could undergo ankle fusion, but that likely wouldn’t help much with his range of motion.

“I really appreciated that Dr. Cain gave me all of the options,” Michael said. “He’s such a caring person and he really wants you to decide what you think is best. He doesn’t want to make you get something done that you don’t want done.”

Deacon learned that if the surgery did not go well, there would be little else they could do. An unsuccessful knee or hip replacement can be done again. Not so with ankle surgery. Because of the invasiveness of the procedure, there would be no option to correct it.

Deacon, that toughness shining through, was undeterred. He opted to move forward with the surgery.

“I told Michael that I would need to go in and remove the plates and screws that he had in currently,” said Cain. “I also let him know that I would likely have to do a little bit of extra drill work to get everything realigned and that after it was all said and done the surgery would likely take four to five hours.”

“I told him that was fine by me,” said Deacon with a laugh. “Anything worth waiting for has to be a good thing.”

MECHANICALLY ENGINEERED

Deacon shared his news with several people, thinking some may realize it was an option for them.

“I would tell them I was having my ankle replaced and they were just shocked,” said Deacon. “They would say, ‘What!? Do they cut your foot off for that?’”

No, foot amputation is not involved, though a fairly significant incision is. A cut is made at the front of the ankle so that the ankle joint can be exposed. From there, damaged cartilage, along with damaged bone from both the shin (tibia) and the top of the ankle bone (talus) that the leg bones rest on, are removed.

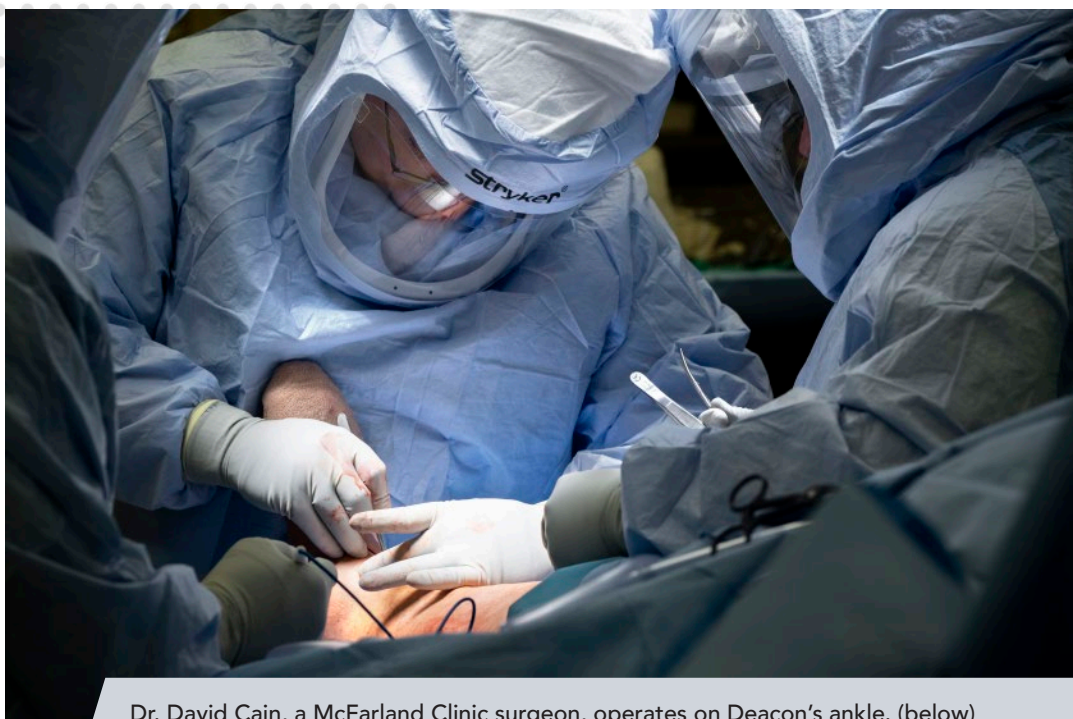
The replacement ankle joint consists of two metal parts. One is attached to the tibia and the other to the talus. A piece of plastic is then inserted in between the two parts to act as cartilage. That all sounds simple. It isn't.

POST-OP & ALMOST PAIN-FREE

Deacon had the surgery in February. It went well, but took a few more hours than anticipated.

“Once I got in there, I realized that one of the screws from his previous hardware had been stripped when it was put in,” said Cain. “That made the hardware more difficult to remove. We used about every option we had available in the OR to get that plate and screw out and eventually got it. After that, the implant part was smooth sailing.”

Every option included using an esmark bandage (think a giant rubber band) placed on top of the stripped screw to help the screwdriver gain traction. When that didn't work, a small threaded



Dr. David Cain, a McFarland Clinic surgeon, operates on Deacon's ankle. (below) Deacon at post-surgery physical rehab with Brent Baerenwald, a Mary Greeley physical therapist.

nail called a trephine that cuts into the screw itself was used... until the trephine snapped. Finally, a diamond-tip burr did the trick, allowing Cain to cut through the metal plate and top of the stripped screw.

Deacon couldn't help but laugh when he learned the reason for the lengthier-than-planned surgery. “It just made me chuckle a bit that it took longer to get the old stuff out than it did to get the new stuff put in.”

Deacon was nonweight bearing for nearly the next eight weeks. Remarkably, he had minimal pain throughout his recovery.



TOTAL JOINT REHABILITATION AT MARY GREELEY

The Mary Greeley Outpatient Rehab & Wellness department is housed in the lower level of the Medical Arts building and offers a variety of programs to help total joint replacement patients, regardless of the joint replaced.

The Total Joint Replacement Program at Mary Greeley encourages patients to start physical therapy PRIOR to surgery. This can help with strengthening, balance, and range of motion prior to surgery, as well as pain and mobility after the surgery. Typically, the better shape a patient is in before surgery, the better the outcome for the patient.

The program takes the patient through the recovery journey alongside trained therapists. A patient may find themselves in the pool in the same way Deacon was or doing various physical therapy exercises on land. A therapist will sit down with the patient and create an individualized care plan that both parties are comfortable with.

Questions regarding the Total Joint Replacement Program at Mary Greeley? Call Outpatient Rehab & Wellness at 515-239-6770.

A replacement ankle is made of two metal parts. One is attached to the shin bone and the other to the top of the ankle bone. Since Deacon's surgery, Cain has scheduled several more ankle replacement surgeries.



WHAT IS POST-TRAUMATIC OSTEOARTHRITIS?

Post-traumatic osteoarthritis is exactly what it sounds like. It is arthritis that occurs after an injury has impacted the joint, which in Michael Deacon's case meant that his ankle was affected.

A severe injury to a joint can cause a couple different things.

1. It can damage the cartilage surrounding the joint, causing it to thin and erode, which eventually results in bone rubbing on bone. This is the same with regular osteoarthritis, but post-traumatic osteoarthritis happens over a much shorter period of time.

2. It may cause the joint to stop making some of the substances that are needed to maintain the joint. Simultaneously, the bone may become stiffer, thicker, and heavier, which reduces its shock-absorbing capability.

Suffering from post-traumatic osteoarthritis doesn't always equate into surgery. Symptoms can sometimes be alleviated by rest, ice, orthotics, physical therapy, or cortisone injections.

"I really only ever took Tylenol for the pain," he said.

Cain credits some of that to the nerve block given to Deacon just prior to surgery.

"I try to have my patients get a good block prior to surgery because it really seems to help afterwards. Michael was still numb the next day from his block, which served him well," said Cain. "That being said, I am a bit surprised that with all of the extra work we had to do to remove the old hardware he had so little pain. Everyone handles pain differently though."

LAND AND WATER REHAB

On April 12, 2021, roughly six weeks after his surgery, Deacon had his first physical therapy appointment at Mary Greeley Rehab & Wellness. Still not able to put pressure on his foot, he had his first aquatic therapy appointment just a few days later on April 15.

"Aquatic therapy allows patients to become weight bearing sooner because the water reduces the amount of weight on the leg," said Cain. "The water pressure can also help with swelling in the lower leg, which also helps with pain."

"They are so great down in Rehab & Wellness," said Deacon. "I saw them, Brent [Baerenwald] specifically, for both my knee replacements and they're fantastic about pushing you just far enough—but not so far that it's painful, but not so little that you won't see results. On top of that, they're genuinely nice people" (see sidebar).

Knowing Deacon from his knee replacements, Baerenwald knew that he had a good work ethic. There was a biological component to it, though, as well.

"When a patient undergoes a surgery like Michael did, they clean everything out," Baerenwald said. "For him, the pain was being caused by the arthritis, and by removing the joint, they removed the arthritis. Any pain he had after the surgery was caused by the surgery—and that pain is much easier to control than the pain caused by something like post-traumatic osteoarthritis."

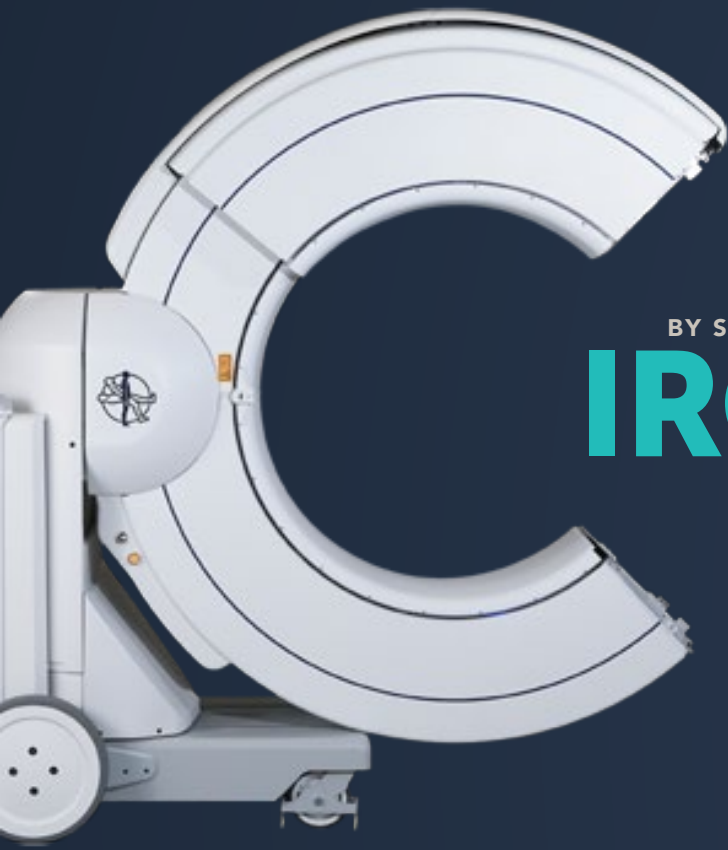
BACK IN STEP

Deacon now has a virtually pain-free ankle joint, for which he credits both Gilarski and Cain.

"If Dr. Gilarski hadn't recommended I talk to Dr. Cain, I may never have known that a total ankle replacement was even an option and I'd still be suffering with almost constant pain," he said. "The surgery Dr. Cain performed has made all the difference. So much so, that I've told him if he has any other candidates considering this kind of surgery, I would be more than happy to share my experience with them. That's how much it has improved my quality of life."

Nine months after his surgery Deacon had finally gotten back to doing the things he loves. Recently, he got the Harley out for a Ride for Sleeping Angels, which is a support group for families who've lost children. It was 230 miles of open road, with stops along the way at Painted Freedom Rocks. He also got to do something else he'd been missing.

"My ankle is feeling so much better and I can walk and stand for much longer periods of time," says Michael. "I have even been able to go dancing with my wife, Sandy, and a year ago that wouldn't have been possible without a great deal of pain and discomfort." ■



BY STEVE SULLIVAN

IRCLE BACK

How a new surgeon and new technology are advancing spine surgery at Mary Greeley.



A dark, hollowed-out space around the screw tells a painful, frustrating story.

The screw is intended to fuse vertebrae on the spine of a man who has had five back surgeries but is still experiencing pain. The shadow surrounding the screw, clearly visible on an X-ray, indicates that the small shaft of metal isn't doing its job.

The man is soon going to have his sixth back surgery, and this time it's going to be different. He will be operated on by Dr. Jonathan Geisinger, a new spine surgeon with McFarland Clinic, who will use an advanced piece of equipment called the O-Arm. The O-arm is the latest high-tech device that Mary Greeley has added to its surgical toolbox.

PRECISION

Imagine driving through downtown Chicago guided only by your memory of previous visits to the city. You'll get to where you are going eventually but might be surprised along the way by detours caused by construction or accidents. Now imagine doing it with an advanced GPS that will help you navigate with real-time notifications of route conditions.

The O-arm works in a similar fashion, providing a more precise map of an individual's spine during surgery.

"It is really great in revision circumstances, which means a previous surgery needs to be corrected," Geisinger said. "It's great for when your anatomy is altered or different. You can do these surgeries using your anatomy knowledge, using landmarks, but the O-arm adds another layer of accuracy. It allows you to put instruments in highly accurate places and helps you to place them more precisely. A more reliable surgery means a better outcome."

IMAGING

The O-arm system provides real-time, intraoperative imaging of a patient's anatomy with high-quality images and a large field-of-view in both two and three dimensions.

The images provided by the O-arm are transferred to a StealthStation Navigation System, which creates a 3-D map of a patient's anatomy using the O-arm's imaging data. Geisinger and his surgical team can view the StealthStation screen as he works on the patient's spine or neck. The system enables Geisinger to choose the best size of screw to fuse vertebrae, and to precisely navigate the placement of the screw.

SPIN

After Geisinger opens the surgical area on the patient's back, he attaches a multipronged device called a "reference frame" to the patient's spine. The frame is sort of an intermediary, facilitating communication between the O-arm Imaging System and the StealthStation Navigation System during the spinal procedure. It must remain stable during the surgery, or the process must start all over again.

The O-arm is then brought in, literally encircling the patient on the operating table. After it is in place, it is activated, "spinning" around the patient and recording those real-time 3-D images of the patient's anatomy at the surgical site.



(top, clockwise) Dr. Jonathan Geisinger and his surgical team prepare for the O-Arm to record images of a patient's spine. Geisinger looks at images captured by the O-Arm and displayed on a computer screen. The device called a "reference frame" is attached to the patient's spine. It facilitates communication between the imaging station and a navigation system.



▶ VIDEO

Learn more about the O-Arm and how Dr. Geisinger uses it for spine surgery at www.mgmc.org/spine.

"Everyone's anatomy is different, and this system allows you to place the biggest screw possible for each patient," said Geisinger. "Bigger screws contribute to a more reliable fusion."

A FAN

Geisinger grew up on a farm in northwest Iowa and has had Ames and McFarland Clinic on his radar for several years. He had been practicing in Sioux Falls, South Dakota, when the opportunity to join the clinic opened.

His one request: get an O-arm for Mary Greeley's operating room. Geisinger was introduced to the O-arm in his previous position.

"I used it off and on for a few years, started really seeing the benefits of it, and moved to using it for every surgery," he said. "It places instruments right where you want them to be, resulting in more predictable surgeries and better outcomes."

Geisinger performs surgery on the cervical, thoracic, and lumbar spine. He treats patients for degenerative spine conditions like spinal stenosis and herniated discs. He also treats spinal deformities like scoliosis. Surgically, Geisinger performs cervical disc replacements, minimally invasive spine surgeries, and spine surgeries needed to correct a previously unsuccessful operation. While the O-arm has other surgical applications, Geisinger uses it solely for back and neck surgeries that include spinal fusion, a procedure that involves connecting two or more vertebrae in the spine to eliminate motion between them. ■



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